Cost of Land Use Fiscal Impact Analysis:

The Fiscal Impacts of Compatible and Incompatible Land Use in the Fort Bragg Region

FINAL

Prepared for:

FORT BRAGG REGIONAL ALLIANCE

(Formerly the BRAC Regional Task Force)

June 2011

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Fort Bragg Regional Alliance

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EXECUTIVE SUMMARY

OVERVIEW OF THE STUDY

TischlerBise has been retained by the Fort Bragg Regional Alliance (formerly Fort Bragg BRAC Regional Task Force (BRAC-RTF)), to conduct a *Cost of Land Use Fiscal Impact Analysis* for jurisdictions adjacent to Fort Bragg, particularly those areas with property identified as critical and important to preserve to ensure compatibility with the base. This study includes the counties of Harnett, Hoke, and Moore and the Town of Aberdeen.

In recent years, much has been written about the challenges of incompatible land uses surrounding military bases. At the most extreme, incompatible land uses can lead to closure or realignment of an installation—or at least serious consideration for closure or realignment. Less drastically, it can have an incremental impact on military training activities that over time could have a detrimental effect on a community's economy.

In general, incompatible land use from the military standpoint has been an issue about loss of mission-readiness and base operability. Military training ground is land that is increasingly being threatened—from many factors (people, animals, natural habitats, and endangered species). The following passage provides a good summary of the inherent conflicts with incompatible land use:

> *The implications for State and local governments are twofold. Increased military operations will yield greater local economic activity that will benefit State and local governments by the creation of new jobs and economic wealth. Likewise, increased military operations will create increased potential for noise and accidents on and off base. The compromise is compatible land use planning at the local government level.*
>
> *State and local governments that recognize these potentials and plan accordingly will be positioned to accommodate, manage, and direct growth in order to be responsive to the expanding military presence. State and local governments that do not will find themselves poorly positioned to take full advantage of the military presence while protecting the public health, safety, and welfare of their residents.*[1]

[1] Office of Economic Adjustment in cooperation with the National Governors Association Center for Best Practices, *Practical Guide to Compatible Development Near Military Installations,* July 2005.

However, local governments are typically fragmented in a region, rarely with a regional entity having much influence in land use planning and rarely if ever having any authority to implement changes. While there may be general support for a military base and its economic importance, the level of specific support from each jurisdiction surrounding a base may vary greatly. ***This presents an inherent conflict: economies are regional in nature but land use decisions are local.***

The Fort Bragg region has been a leader in regional approaches to planning and collaborative efforts in protecting the base. Entities such as the Regional Land Use Advisory Commission (RLUAC) and the Fort Bragg Regional Alliance (formerly the BRAC-RTF) provide vehicles and leadership for collaboration among regional stakeholders on the cross-cutting and oftentimes conflicting issues of protecting the military mission; protecting health, safety, and welfare of residents; minimizing the impact of base expansion on communities; maximizing the economic growth potential; and preserving the environment.

As is the case with any military installation, there is a need to strike an appropriate balance between market demand and resulting land uses within close proximity to a military installation, while protecting the military mission of the facility. Therefore, one of the implementation steps recommended by the BRAC-RTF *Comprehensive Regional Growth Plan (CRGP)* is the evaluation of the impacts of planned land use and development in areas identified in the *2008 Joint Land Use Study (JLUS)* as "critical and important" areas. Toward that end, the BRAC-RTF commissioned this study to evaluate the fiscal impacts of different types of land uses on the respective local governments to complement the ongoing planning and implementation efforts in the region.

WHAT IS FISCAL IMPACT ANALYSIS?

In general, a fiscal impact evaluation analyzes revenue generation and operating and capital costs to a jurisdiction associated with the provision of public services and facilities to serve development—residential, commercial, industrial, or other. A fiscal impact analysis is different from an economic impact analysis in that a fiscal impact analysis projects the cash flow to the **public sector** (government) while an economic impact analysis projects the cash flow to the **private sector**, measured in income, jobs, output, indirect impacts, etc. Just as a household benefits by forecasting its long-term cash flow needs (incorporating anticipated future expenses for higher education and other large cost items) and setting money aside to pay for future outlays, local governments are better prepared to manage during changing financial circumstances if they anticipate and plan for future costs and revenues.

A *Cost of Land Use Fiscal Study* is one type of fiscal impact analysis that examines the fiscal impact of prototypical land uses to a jurisdiction. It uses a "snapshot" approach to determine the costs and revenues for specific land use prototypes to better understand the impacts each land use has independently on a jurisdiction's budget. In other words, it seeks to answer the question, "***What type of***

development pays for itself?" The results can assist jurisdictions with future land use and financial planning. Understanding the types of land uses that are more fiscally advantageous to a locality's bottom line can aid land use planning. While fiscal zoning is illegal, the analysis can help inform a community as to the appropriate mix of land uses. Second, the analysis can assist in long-term financial planning as well as identify the need for and type of additional revenue sources.

FISCAL IMPACT ANALYSIS FOR THE FORT BRAGG REGION

The analysis conducted for the Fort Bragg Regional Alliance is specific to each jurisdiction in the study, which includes Harnett, Hoke, and Moore counties and the Town of Aberdeen. The jurisdictions in the study were selected because each has areas identified as "critical and important" to preserve. Other areas of the region, such as Cumberland County and Fayetteville are near the urbanized area of the base and further development is anticipated to be compatible with activity at Fort Bragg. As discussed in the *2008 Joint Land Use Study*, while significant growth is anticipated in Cumberland County, the "projected population and residential growth is not a significant concern, since it is largely contiguous (and compatible) with the post's cantonment area."[2]

The fiscal analysis uses Fiscal Year 2011 Budgets as well as current demographic information (e.g., household size and student generation rates by type of unit) and market values for each jurisdiction. Further detail on the assumptions used in the analysis is provided in the body of this report and the accompanying Appendix B. TischlerBise evaluated a total of eight land use categories for each jurisdiction plus an additional examination of agricultural uses. The land use categories are listed below. Demographic factors vary by jurisdiction and are discussed in each jurisdiction's chapter in this report.

Residential Land Use

- Single family detached unit of high value
- Single family detached unit of average value
- Single family detached unit of low value
- Townhouse unit
- Multifamily unit

Nonresidential Land Use

- Retail
- Office
- Industrial

[2] Fort Bragg / Pope Air Force Base Joint Land Use Study Update, March 2008.

The analysis is based on **current levels of service**. Current levels of service represent each jurisdiction's current level of spending for services and facilities. That is, assumptions made in the analysis are based on revenue sources, programs, services, requirements, and policies that are in place today. Only those revenues and costs **directly attributed** to the land use are assumed. Indirect, or spin-off, impacts are not included. Since this analysis focuses on the fiscal impact of selected residential and nonresidential prototypes in each jurisdiction without regard to geographic location within the jurisdiction, it relies on average costing.

SUMMARY OF COST OF LAND USE FISCAL IMPACT RESULTS

The following figures graphically reflect the results of the Cost of Land Use fiscal analysis for each jurisdiction in the study. For residential development, results shown are **per residential unit** and for nonresidential development results are shown **per 1,000 square feet of floor area**. Data points above the $0 line represent annual net surpluses; data points below the $0 line represent annual net deficits.

Figure 1. HARNETT COUNTY Cost of Land Use Fiscal Results

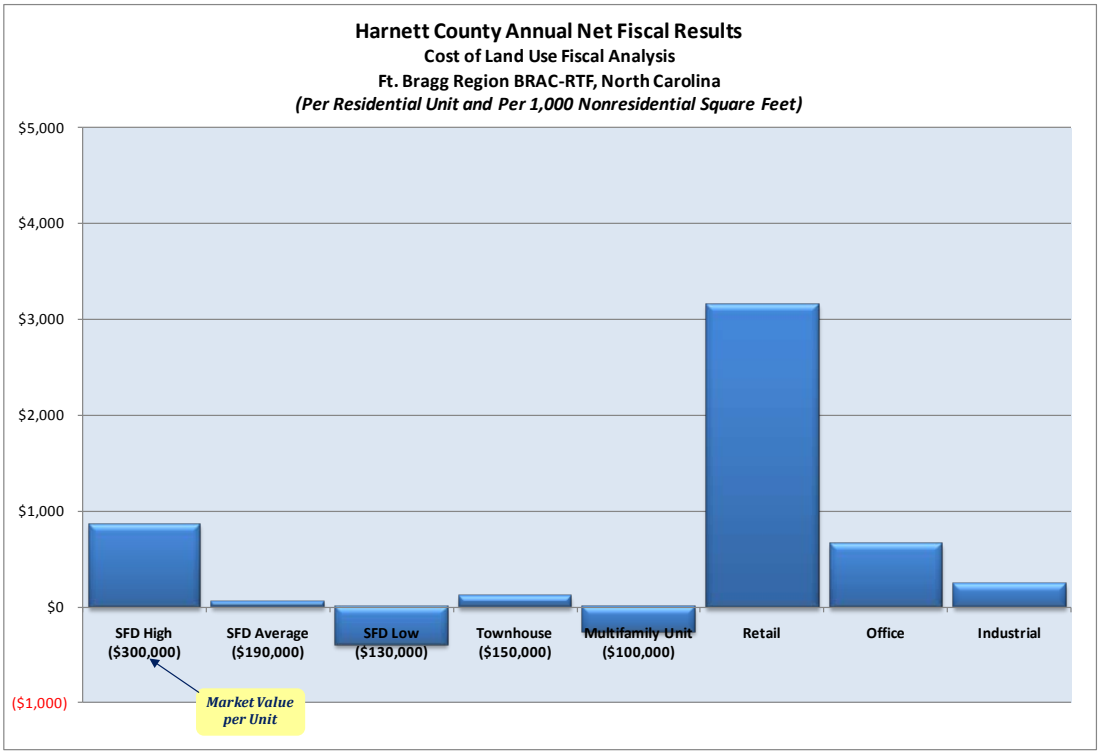


Figure 2. HOKE COUNTY Cost of Land Use Fiscal Results

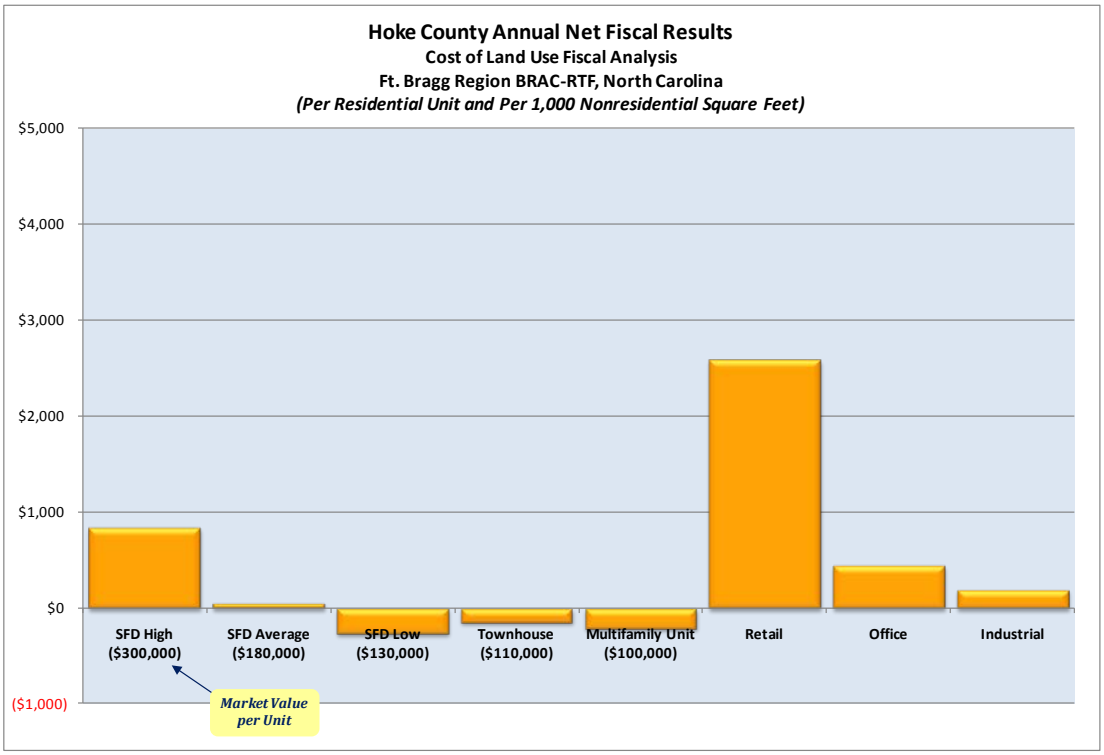


Figure 3. MOORE COUNTY Cost of Land Use Fiscal Results

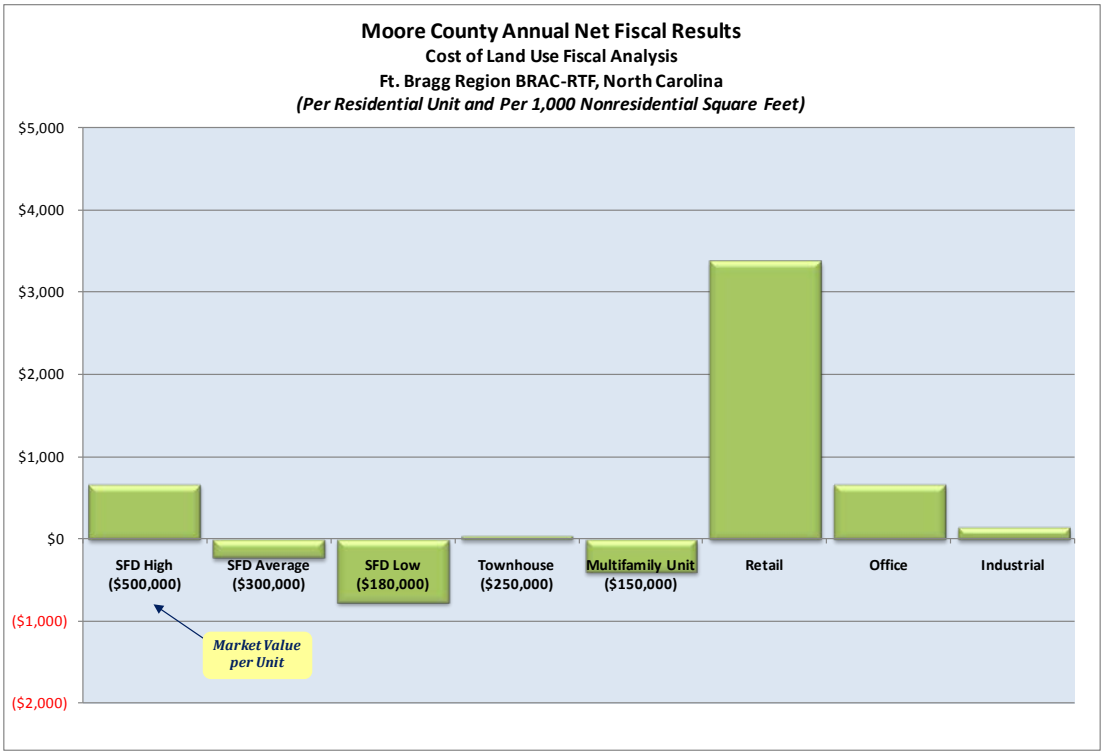
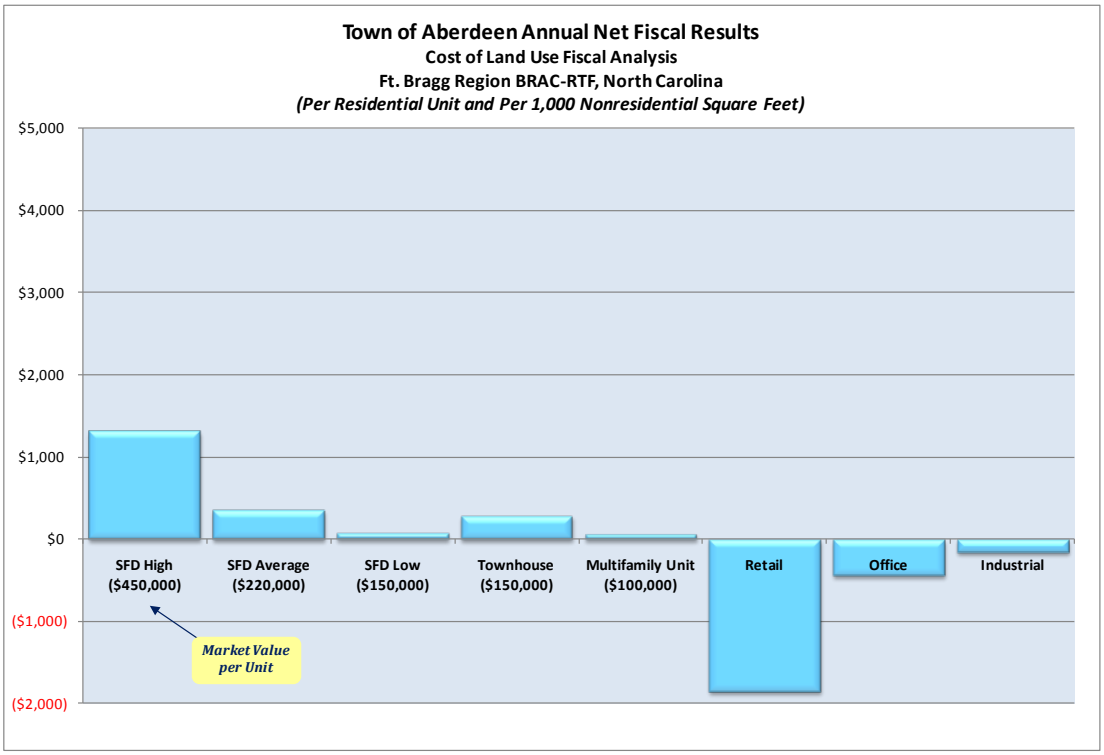


Figure 4. TOWN OF ABERDEEN Cost of Land Use Fiscal Results



Major Findings

Most residential development located in the counties within the study area do not generate sufficient revenues to offset the costs associated with providing services and facilities. On the other hand, nonresidential development in the counties does pay for itself. Conversely, for the municipality included in the study, the Town of Aberdeen, residential development tends to pay for itself while nonresidential development does not.

The results can be attributed to the services provided and revenue structure. The major (and costly) services provided by counties in North Carolina of education and human services are driven by residential development. Housing units generate people and students that in turn generate these costs. The main source of revenue from residential development in the counties is from property taxes. Therefore, properties below a certain market value will not pay for themselves. For nonresidential development in the counties, major services are public safety, which are allocated to both nonresidential and residential development. While retail development generates relatively high public safety costs, the direct revenues generated to the County due to a point of sale sales tax exceed the costs incurred. Other nonresidential uses do not demand costly services and generate sufficient property tax revenues to offset the costs. Unlike municipalities, counties in North Carolina do not build, own, or maintain streets; if this were the case, fiscal results for all land uses would be quite different.

For the Town of Aberdeen, residential development is more fiscally beneficial than nonresidential because the sales tax distribution formula for municipalities is on a per capita basis rather than point of sale basis, which favors residential development. In addition, the primary Town services of public safety and streets are provided to both nonresidential and residential development, thus increasing costs to serve nonresidential development.

For all the counties in the study, single family residential subdivision development of average value generates a net fiscal deficit or is essentially fiscally neutral. Higher value residential development tends to generate net surpluses given the importance of property taxes for Counties. Large lot development (on 10 acres or more) will likely be fiscally beneficial to counties due to the services provided by counties and the likelihood that property values would be at a level to generate fiscally neutral results. Large lot residential development is generally considered compatible with the military installation.

Agricultural uses, also compatible with Fort Bragg, would also be a net surplus to the counties (see Figure 5 below and discussion on page 35). Therefore conservation easements would also be a net surplus for a county when compared to most residential development.

Figure 5. Agriculture Cost of Land Use Fiscal Results

	Harnett County	*Hoke County*	*Moore County*
Revenues per Avg. Size Farm*	$782	$1,408	$380
Expenditures per Avg. Size Farm	$359	$702	$153
Net Fiscal Results	**$423**	**$706**	**$228**
Average Size Farm (Acres)	154	242	100
Net Surplus Per Acre	***$2.75***	***$2.92***	***$2.28***

** Assumes Present Use Value for property tax revenues*
Sources: USDA Census of Agriculture, 2007; NC Department of Revenue; TischlerBise

Nonresidential development is also better fiscally than residential for counties. However, nonresidential development adjacent to Fort Bragg brings up other potential issues related to natural habitats. For instance, retail development generates significant revenue to counties and nonresidential land uses are generally considered compatible uses (except in Accident Potential Zones). However, there is the potential for unintended consequences. For example, allowing retail development in the critical and important areas would likely require clear-cutting of property and therefore a resulting loss of habitat for the Red-cockaded Woodpecker and other threatened species, which in turn would move those species to Fort Bragg. Protection of these relocated habitats would further restrict training capabilities. If this occurs over and over and in many locales, eventually the additional training restrictions may lead

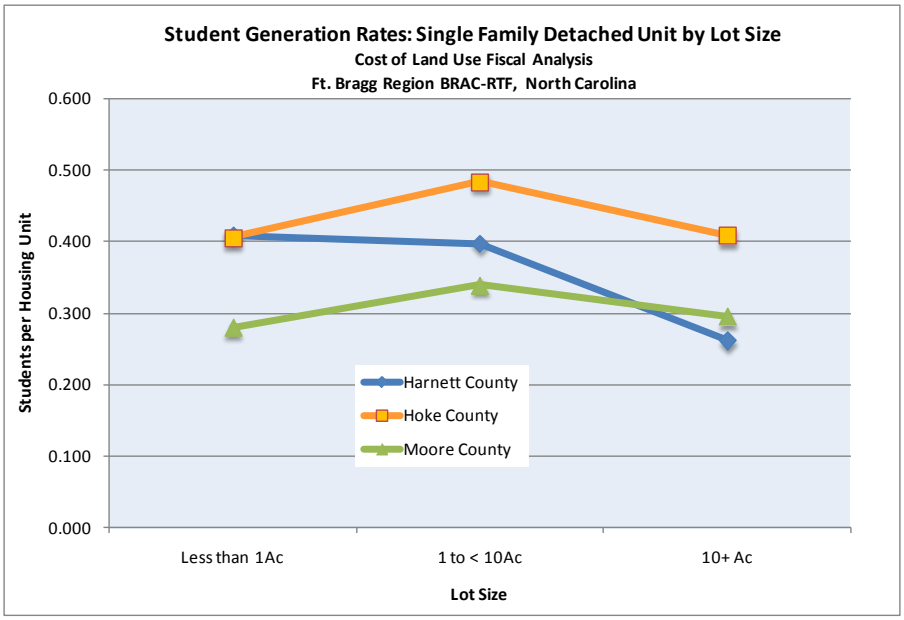
to realignment of the base—and potential closure in the extreme—thus jeopardizing the region's economic engine. Those initial retail developments that were built to serve workers, dependents, and residents will eventually close and cease to be a revenue generator. Obviously, this is a somewhat oversimplified scenario that involves many variables that if it did occur would take decades. ***However, the main point is that these elements all work together in complex and interconnected ways and without attention to discrete land use decisions today, the result may be detrimental to the region as a whole tomorrow.***

Further Analysis of Student Costs

To estimate school costs in this study, we use an average estimated Student Generation Rate (SGR) by type of housing unit. Given the potential for incompatibility with Fort Bragg from higher density residential development, we also drilled down into the data to determine if houses on smaller lots generate more or fewer public school students per unit.

We found that the effects of lot size vary by County. For each of the three counties in the study, the ***greatest number of students per unit is from units on 10 acres or less***. Figure 6 shows estimated students per unit by size of lot for single family detached units.

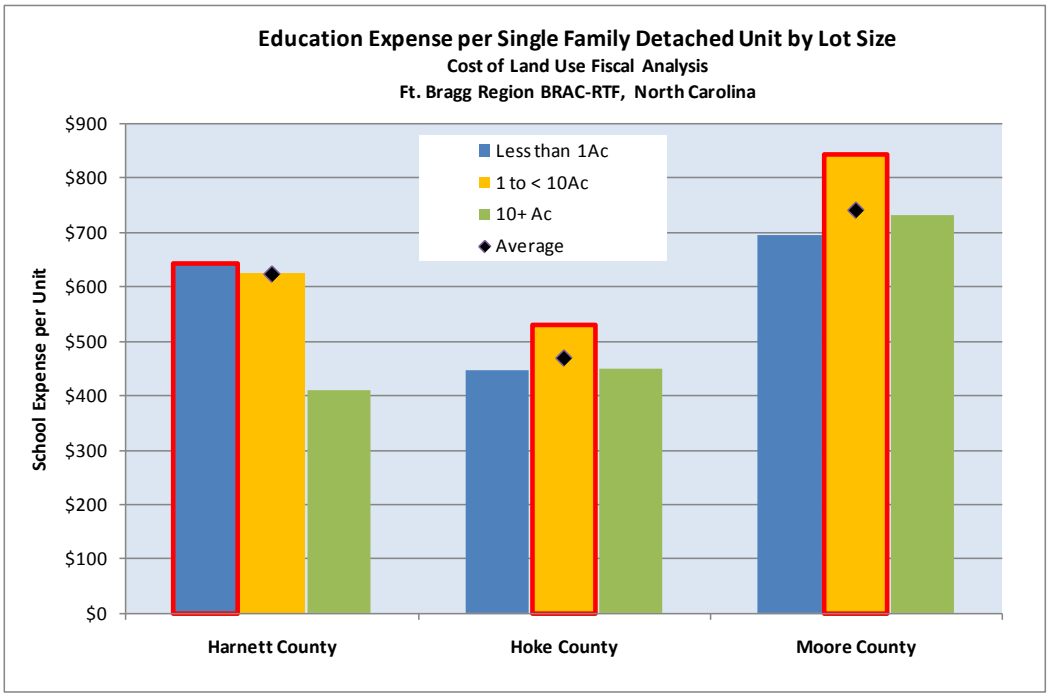
Figure 6. Student Generation Rates by Lot Size



This results in differences in school costs by size of lot. Estimated education expenses (for operating and capital) per student for each county were multiplied by the student generation rates to determine estimated expenditures for single family houses on different lot sizes. The results are

shown below in Figure 7 with the highest cost per unit highlighted. As shown, in each county ***the highest costs are generated on lots less than an acre in Harnett and from 1 to 10 acres in Hoke and Moore counties***.

Figure 7. Local Education Expenditures per Single Family Unit by Lot Size (Graph)



IMPLEMENTATION TOOLS

A number of measures have been implemented in the Fort Bragg region over the years to address the issue of incompatible land uses including plans (CRGP, JLUS, Working Lands Protection Plans) as well as implementation measures. Additional fiscal and planning tools that are relevant and potentially worthwhile to pursue are discussed in this report. Tools discussed are:

- Federal Impact Aid
- Impact Fees
- Revenue Sharing
- Military Installation Overlay Zoning District
- Transfer of Development Rights (TDR)
- Conservation Easements
- Encourage Enrollment in the Present-Use Valuation
- Voluntary Agricultural District (VAD) Program and Enhanced VAD

HOW SHOULD THE RESULTS BE USED?

Local governments must make decisions about the provision of services and infrastructure with limited available resources. A variety of competing and oftentimes contradictory influencing factors exist such as environmental, social, economic, fiscal, and political. Elected officials will want to address property owners' concerns and desires while providing for the economic viability and safety of citizens.

However, as noted in a Department of Defense primer on land use compatibility and sustainability near military installations, "Land use decisions are often driven by the assumption that the resulting land use will be fiscally advantageous to a jurisdiction."[3] This assumption may or may not be correct. First, local officials need to fully understand revenue and cost drivers. For example, does the jurisdiction receive sales tax revenues based on point of sale purchases or is it distributed from the state based on a per capita formula? While oftentimes revenue generation potential may be understood for a particular land use, the resulting costs may be less apparent.

A fiscal impact analysis is a tool to address the above questions and to explore how different types of land uses affect a local government's fiscal condition. It allows stakeholders to understand and explore the interplay among revenue structure, services provided, land uses, and levels of service. It can assist in making planning decisions. However, it is not intended to lead to "fiscal zoning"—prohibiting certain land uses because they are not "profitable." Unlike a business, a locality is not driven by the bottom line but instead is obligated to allow for a variety of land uses regardless of whether it pays for itself. However, if certain land uses that are (a) incompatible to the mission of the military installation and (b) fiscally detrimental to the locality were discouraged in the "critical and important" areas adjacent to the base and encouraged elsewhere in the locality, a win-win could be achieved. The alternative—incompatible land uses and a fiscal drain to the community—is not beneficial to either party or the region as a whole.

As a result of this analysis, it is hoped that the community will have a better understanding of revenue sources, cost drivers, and levels of service as each relates to different types of land uses. The process and discussions can result in community support for ultimate recommendations since they are quantifiable and can be easily communicated.

Finally, it should be noted that while a fiscal impact analysis is an important consideration in planning decisions, it is only one of several issues that should be considered. Environmental, social, and economic issues, for example, should also be considered when making planning and policy decisions. The above notwithstanding, this analysis will enable interested parties to understand the fiscal implications of development.

[3] ICMA and Virginia Tech Metropolitan Institute, "Collaborative Land Use Planning: A Guide for Military Installations and Local Governments," DOD Range Sustainment Initiative.

INTRODUCTION & ASSIGNMENT

TischlerBise has been retained by the Fort Bragg Regional Alliance, formerly the BRAC Regional Task Force (BRAC-RTF), to conduct a *Cost of Land Use Fiscal Impact Analysis* for jurisdictions adjacent to Fort Bragg, particularly those areas with property identified as critical and important to preserve to ensure compatibility with the base.

SUMMARY OF ISSUE

In recent years, much has been written about the challenges of incompatible land uses surrounding military bases. At the most extreme, incompatible land uses can lead to closure or realignment of an installation—or at least serious consideration for closure or realignment. Less drastically, it can have an incremental impact on military training activities that over time could have a detrimental effect on a community's economy.

The issue of incompatible land use from the military standpoint has been about loss of mission-readiness and base operability. Installations can become frustrated with "workarounds" due to issues arising from complaints from neighbors. The military's training ground is land that is increasingly being threatened—from many factors (people, animals, natural habitats, and endangered species).

The following passage provides a good summary of the inherent conflicts with incompatible land use:

> *The implications for State and local governments are twofold. Increased military operations will yield greater local economic activity that will benefit State and local governments by the creation of new jobs and economic wealth. Likewise, increased military operations will create increased potential for noise and accidents on and off base. The compromise is compatible land use planning at the local government level.*
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> *State and local governments that recognize these potentials and plan accordingly will be positioned to accommodate, manage, and direct growth in order to be responsive to the expanding military presence. State and local governments that do not will find themselves poorly positioned to take full advantage of the military presence while protecting the public health, safety, and welfare of their residents.*[4]

[4] Office of Economic Adjustment in cooperation with the National Governors Association Center for Best Practices, *Practical Guide to Compatible Development Near Military Installations,* July 2005.

However, local governments are typically fragmented in a region, rarely with a regional entity having much influence in land use planning and rarely if ever having any authority to implement changes. While there may be general support for a base and its economic importance, the level of specific support from each jurisdiction surrounding a base may vary greatly. ***This presents an inherent conflict: economies are regional in nature but land use decisions are local.***

The Fort Bragg region has been a leader in regional approaches to planning and collaborative efforts in protecting the base. Entities such as the Regional Land Use Advisory Commission (RLUAC) and the Fort Bragg Regional Alliance provide vehicles and leadership for collaboration among regional stakeholders on the cross-cutting and oftentimes conflicting issues of protecting the military mission; protecting health, safety, and welfare of residents; minimizing the impact of base expansion on communities; maximizing the economic growth potential; and preserving the environment.

To many stakeholders in military communities, the loss of the base may seem unfathomable. However, the threat of encroachment to bases is real—and can ultimately result in realignment or closure. An example of this possibility was summarized by the National Academy of Public Administration in their report, *Strengthening National Defense*, regarding the Hampton Roads/Naval Air Station Oceana, Virginia.[5] In 2005, the BRAC Commission identified Oceana for possible closure and realignment, specifically due to encroachment issues. The Panel notes that "community officials said that was a 'wake up call' that stunned everyone. *The communities had never foreseen the possibility of the base closing."*[6] The "lessons learned" from this experience is that "[l]ocalities and States have to see 'what's in it for them'."[7] And that localities—as well as the state—came to fully appreciate the potential devastating loss to the economy if the base were to close. In this case, unprecedented state legislative changes and financial support occurred.

OVERVIEW OF FISCAL IMPACT ANALYSIS

Fiscal impact analysis is one tool to assist in recognizing, understanding, and balancing the interests surrounding growth pressures adjacent to military installations. Most states require local governments to prepare a balanced budget on an annual basis. However, most states do not require that jurisdictions conduct fiscal impact evaluations to help ensure that local officials understand the short- and long-term fiscal effects of land-use and development policies and of potential new development. A fiscal impact analysis clarifies the financial effects of such policies and practices by projecting net cash flow to the public sector due to residential and nonresidential development. Such an analysis can enable local governments to address a number of short- and long-term planning, budget, and finance issues as well

[5] National Academy of Public Administration, *Strengthening National Defense: Countering Encroachment through Military-Community Collaboration*, September 2009.
[6] *Strengthening National Defense*, Appendix F, "Reports of Panel Site Visits," p. F-13 (emphasis added).
[7] Ibid., p. F18.

as inform the community about land use decisions and policy, such as the benefits or disadvantages of certain types of development patterns.

A fiscal impact evaluation analyzes revenue generation and operating and capital costs to a jurisdiction associated with the provision of public services and facilities to serve new development—residential, commercial, industrial, or other. A fiscal impact analysis is different than an economic impact analysis. While a fiscal impact analysis projects the cash flow to the public sector, an economic impact analysis projects the cash flow to the private sector, measured in income, jobs, output, indirect impacts, etc.

Just as a household benefits by forecasting its long-term cash flow needs (incorporating anticipated future expenses for higher education and other large cost items) and setting money aside to pay for future outlays, local governments are better prepared to manage during changing financial circumstances if they anticipate and plan for future costs and revenues.

Above all else, fiscal impact analysis is one tool to assist local governments evaluate land use decisions. When faced with a land use proposal that may adversely affect a military base, understanding the fiscal impact of the proposed land use can provide another crucial element in objectively analyzing the change and communicating the overall fiscal impact.

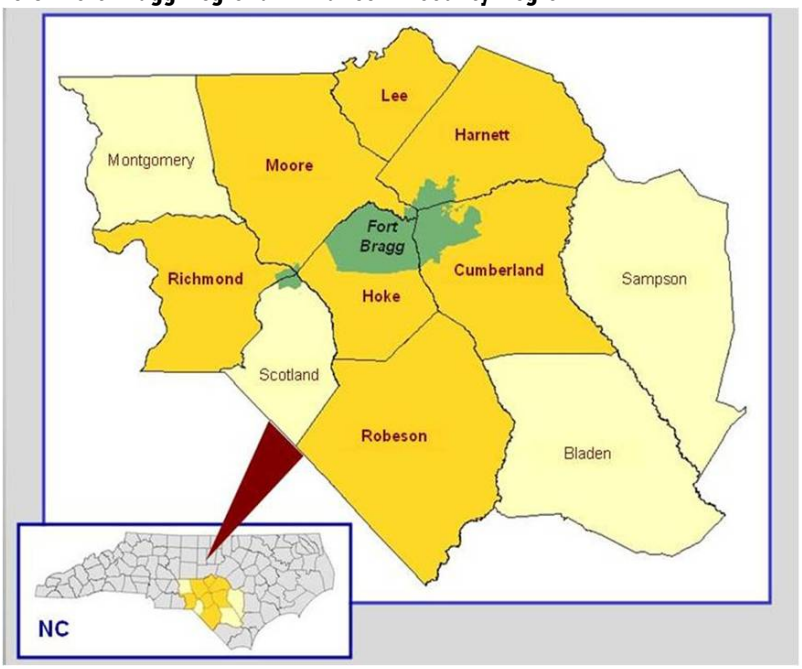
FISCAL IMPACT ANALYSIS FOR THE FORT BRAGG REGION

As the Fort Bragg region prepares for an influx of new residents over the next three to five years, the area is preparing to accommodate the growth. It is anticipated that BRAC will add 8,700 military, civilian, and contractor jobs plus additional jobs due to indirect and induced effects. An increase in the regional population of 40,815 is projected due to BRAC growth alone with total population in the 11-county region expected to exceed one million by 2016.

In response to this planned growth, the Fort Bragg Regional Alliance completed a regional planning study of the 11 affected counties. The *Comprehensive Regional Growth Plan (CRGP)* is a study of the 11-county area that identifies the impacts associated with changes and other transformational growth opportunities in the region and steps that need to be taken to prepare the area for this growth.

The region covered by the Fort Bragg Regional Alliance includes eleven counties and the municipalities within those counties. A map of the region is provided below in Figure 8.

Figure 8. Fort Bragg Regional Alliance 11-County Region



Source: DOD Mission Growth Community Profile, Fort Bragg, NC

As is the case with any military installation, there is a need to strike an appropriate balance between market demand and resulting land uses within close proximity to a military installation, while protecting the military mission of the facility. Therefore, one of the implementation steps recommended by the CRGP is the evaluation of the impacts of planned land use and development in areas identified in the *2008 Joint Land Use Study (JLUS)* as "critical and important" areas. Toward that end, the Fort Bragg Regional Alliance commissioned this study to evaluate the fiscal impacts of different types of land uses on the respective local governments to complement the ongoing planning and implementation efforts in the region.

Jurisdictions in the Study

For the Fiscal Impact Analysis, a subset of the region was selected. The jurisdictions included in the study are **Harnett, Hoke, and Moore Counties** as well as the **Town of Aberdeen**. The rationale is that the three counties in the study as well as the Town of Aberdeen have developable property located in areas identified as "critical and important" to preserve. This contrasts with Cumberland County and Fayetteville, which are near the urbanized area of the base where future development is anticipated to be compatible with the installation. As discussed in the *2008 Joint Land Use Study*, while significant

growth is anticipated in Cumberland County, the "projected population and residential growth is not a significant concern, since it is largely contiguous (and compatible) with the post's cantonment area."[8]

Furthermore, we included a municipality in the study to provide an additional layer of information and the ability to compare results between and among the jurisdictions. Aberdeen was selected for several reasons: (1) it is within the 5-mile boundary from the Base; (2) it anticipates future annexations that will expand its sphere of control and may lead to higher density development within the 5-mile boundary; and (3) municipalities in North Carolina provide the same basic services regardless of whether a Town or City, therefore including a Town will provide relatively transferable information in terms of relative fiscal impact of development on municipalities.

Anticipated Growth in the Study Areas

The 2008 Joint Land Use Study (JLUS) projected the potential for an increase in population of over 14,000 in the three counties included in this study, resulting in a demand for an estimated additional 5,454 housing units on 1,638 acres by 2013. It is assumed that the land that will be developed to accommodate the growth in these counties is currently rural.

Figure 9. Projected Residential Growth in Study Counties

	2013 Projected Population within 5 Mile Study Area	*Additional Dwelling Units Needed to Accommodate 2013 Population Increase*	*Total Acreage Required to Accommodate Projected Population Growth*
Harnett County	4,197	1,614	485
Hoke County	5,142	1,978	594
Moore County	4,841	1,862	559
Total	***14,180***	***5,454***	***1,638***

Source: Fort Bragg Region Joint Land Use Study Update, 2008

Further the JLUS determined that within the 5-mile boundary, the counties included in our study had between 40,000 to 48,000 acres of rural land identified as critical or important to protect from development pressures. While at the same time it was determined that *each county had ample supply of undeveloped and developable land to accommodate projected normal and BRAC-related growth without developing in the critical and important areas.*

[8] Fort Bragg / Pope Air Force Base Joint Land Use Study Update, March 2008.

LIMITATIONS

This study does not intend to be comprehensive or exhaustive in terms of potential fiscal impacts to all jurisdictions in the region from all types of land uses. This would be impossible even with unlimited resources. Rather, it is intended to highlight jurisdictions with potential for growth pressure, in areas outside the cantonment area—under a range of assumptions. Changing these assumptions (such as market values) would change the results accordingly—with the results herein providing a baseline for which to compare different assumptions. Additionally, the type of fiscal analysis conducted here, a *Cost of Land Use Study*, is by its nature an **average cost analysis**. The majority of costs are spread evenly over the appropriate demand base. Wherever possible, we allocated costs proportionally to residential and nonresidential development.

GENERAL METHODOLOGY AND APPROACH

A *Cost of Land Use Fiscal Impact Study* examines the fiscal impact of prototypical land uses that are currently developed (or anticipated to be developed in the future) in the jurisdiction. In this type of analysis, a "snapshot" approach is used that determines the costs and revenues for various land use prototypes in order to understand the fiscal effect each land use has independently on the jurisdiction. In other words, it seeks to answer the question, ***"What type of development pays for itself?"***

For each jurisdiction, TischlerBise evaluated eight land use categories—five residential and three nonresidential land uses. The land use categories are listed below. Demographic factors vary by jurisdiction and are discussed each jurisdiction's chapter in this report.

Residential Land Use

- Single family detached unit of high value
- Single family detached unit of average value
- Single family detached unit of low value
- Townhouse unit
- Multifamily unit

Nonresidential Land Use

- Retail
- Office
- Industrial

To determine the fiscal impact of each type of land use, cost and revenue factors have been determined based on each jurisdiction's Fiscal Year 2010-2011 Budget and discussions with local staff. The analysis is based on **current levels of service**. Current levels of service represent each jurisdiction's current level of spending for services and facilities. That is, assumptions made in the analysis are based on revenue sources, programs, services, requirements, and policies that are in place today. Detail is provided in Appendix B.

Each jurisdiction's analysis is for the General Fund, both operating and capital. Enterprise funds (such as water and wastewater) are not included in the analysis as they are assumed to be self-sustaining. Fire Districts are not included in the analysis given the diversity in tax rates and populations served across the study counties.

Only those revenues and costs **directly attributed** to the land use are assumed. Indirect, or spin-off, impacts are not included. Since this analysis focuses on the fiscal impact of selected residential and nonresidential prototypes in each jurisdiction without regard to geographic location within the jurisdiction, it relies on average costing.

PROTOTYPE DEMOGRAPHIC FACTORS

For each jurisdiction, TischlerBise determined key demographic factors by prototype. Our approach was to be as consistent as possible among the study jurisdictions, therefore the same data sources were used wherever possible. Further detail is provided in the Appendix B.

- ***Household Size by Type of Residential Unit***: Household size, or persons per household, was derived using U.S. Census data from the American Community Survey (2009, Five-Year Estimates). Household size varies by type of housing unit (single family detached, townhouse, multifamily).

- ***Public School Student Generation Rates***: Public School Student Generation Rates reflect the average number of public school students per housing unit by type of unit and were derived for each County using U.S. Census data from Year 2005-2009 American Community Survey Public User Microdata Sample (PUMS) files. To be consistent, all county data was derived from this dataset using the appropriate geographic region. It should be highlighted that the rate reflects an **average** rate by type of unit regardless of the year a house was built. This reflects the impact from public school students over the life of a housing unit. We further refined the data to determine the relationship between the housing lot size and number of students per unit.

- ***Proportionate Share Factors***: For some services that are provided to both residential and nonresidential land uses (e.g., public safety), an analysis of the relative demand from residential and nonresidential development is necessary to allocate costs. We obtained and evaluated data on resident workers (those who live and work in the study jurisdiction), non-resident workers (those who work in the study jurisdiction but live elsewhere), and jobs in the study jurisdiction. This information was then used to estimate the relative demand from residential and nonresidential development.

- ***Market Values***: TischlerBise conducted research on market values for residential and nonresidential properties using County and State data, online sources, discussions with staff, and our experience in North Carolina. For residential properties, particularly single family detached homes, recent data on ranges of listing prices was used to identify an average price as well as a higher and lower price point to test fiscal impacts. The market values are not meant to be exhaustive, but rather to provide a range within each jurisdiction to test fiscal impacts of

different prototypes and values, namely because property taxes are a main source of revenue in North Carolina therefore property values are a key determinant of the results.

HARNETT COUNTY COST OF LAND USE RESULTS

LAND USE PROTOTYPES

TischlerBise evaluated eight land use categories for this analysis—five residential and three nonresidential land uses. This section provides further detail on the characteristics of these land use prototypes.

Residential Prototypes

Residential prototypes included in the study are shown in Figure 10. The different prototypes are meant to represent a range of residential development that exists today and will likely be developed in the future. Figure 10 outlines the residential prototypes and their associated characteristics. Estimated household sizes (persons per unit) along with average market and assessed values are shown in the table for each prototype. All single family detached prototypes will have the same household size. Also shown is the student generation rate by type of unit. This is derived from U.S. Census American Community Survey PUMS data for a multi-county region that includes Harnett and Lee counties and then calibrated to the conditions in Harnett County. We further analyzed this data to derive student generation rates by size of lot. This analysis is provided on page 42. The data in Figure 10 are used to calculate the associated revenue and cost factors in the fiscal impact study. Further detail on residential prototype units is included in Appendix B.

Figure 10. HARNETT COUNTY Residential Prototypes

	Land Use Prototype	*Market Value Per Unit (rounded) [1]*	*Assessed Value Per Unit (rounded) [2]*	*Persons Per Unit [3]*	*Public School Students Per Unit [4]*	*Vehicle Trips Per Unit [5]*
	Single Family Detached (SFD)					
1	**SFD High Value**	$300,000	$300,700	2.66	0.396	4.79
2	**SFD Average Value**	$190,000	$190,500	2.66	0.396	4.79
3	**SFD Low Value**	$130,000	$130,300	2.66	0.396	4.79
4	**Townhouse**	$150,000	$150,400	1.90	0.304	2.91
5	**Multifamily**	$100,000	$100,200	1.90	0.304	3.33

[1] TischlerBise analysis of County assessor data, online listings, and staff discussions.
[2] Sales Assessment Ratio from NC Dept of Revenue for Harnett Co. is 100.24 (revaluation in 2009); therefore assessments are 100.24% of market value.
[3] U.S. Census, American Community Survey, 2005-09 Five-Yr Estimates
[4] U.S. Census, American Community Survey, 2005-2009 Five-Yr PUMS Estimates
[5] Trip Generation, Institute of Transportation Engineers, 2008. Trip rate is adjusted to account for portion attributable to residential unit.

Nonresidential Prototypes

Nonresidential prototypes included in the study are shown in Figure 11. The nonresidential land uses reflect existing and likely future types of nonresidential development in the County. The table below outlines the nonresidential prototypes and their associated characteristics.

Figure 11. HARNETT COUNTY Nonresidential Prototypes

	Land Use Prototype	*Market Value Per Sq. Ft. (rounded) [1]*	*Assessed Value Per Sq. Ft. (rounded) [2]*	*Employees Per 1,000 SF [3]*	*Vehicle Trips Per 1,000 SF [4]*
1	**Commercial/Retail**	$75	$75	2.50	22.41
2	**Offices (Prof. and Bus. Srvcs)**	$85	$85	3.91	7.83
3	**Industrial**	$25	$25	1.79	1.91

[1] NC Dept. of Commerce; TischlerBise analysis;
[2] Sales Assessment Ratio from NC Dept of Revenue for Harnett Co. is 100.24 (revaluation in 2009); therefore assessments are 100.24% of market value
[3] Institute of Transportation Engineers; Urban Land Institute
[4] Trip Generation, Institute of Transportation Engineers, 2008. Trip rate is adjusted to account for portion attributable to nonresidential.

METHODOLOGY AND APPROACH

Cost and revenue factors have been determined based on the FY 2011 Final Harnett County Budget and discussions with County staff. The analysis is based on **current levels of service**. Current levels of service represent the County's current level of spending for services and facilities. That is, assumptions made in the analysis are based on revenue sources, programs, services, requirements, and policies that are in place today. Revenue and cost detail is provided in the Appendices.

The analysis includes the General Fund, both operating and capital, including County funding for schools. School costs include local current expense and debt service but not state or federal funding. Enterprise funds are not included in the analysis as they are assumed to be self-sustaining. Fire districts are not included. Only those revenues and costs **directly attributed** to the land use are assumed. Indirect, or spin-off, impacts are not included. An average cost approach is taken and where appropriate, revenues and costs are allocated to residential development, nonresidential development, or both.

COST OF LAND USE FISCAL IMPACT RESULTS

The Harnett County Cost of Land Use fiscal impact results are discussed in terms of annual net results for each land use prototype. The figures in this section show net fiscal results by type of land use for residential development and nonresidential development. For residential development, results are shown **per residential unit** and for nonresidential development results are shown **per 1,000 square feet of floor area** in all figures. In Figure 13, data points above the $0 line represent net surpluses; data points below the $0 line represent net deficits.

Figure 12. HARNETT COUNTY Annual Revenues and Expenditures by Land Use

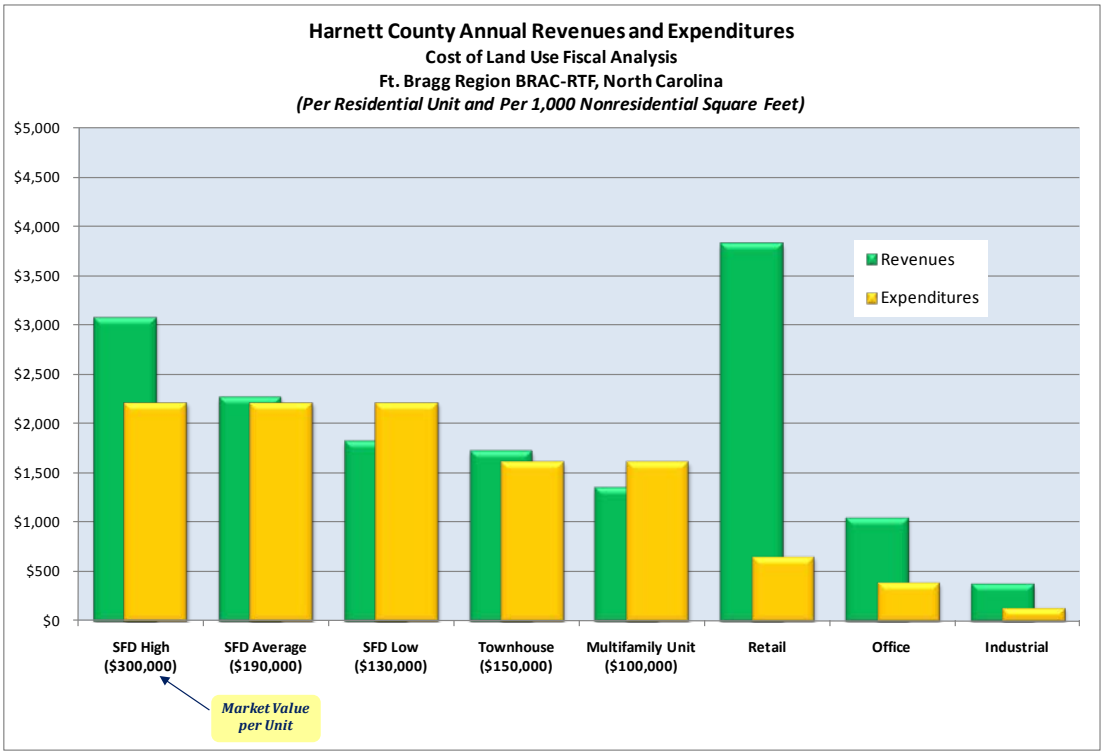
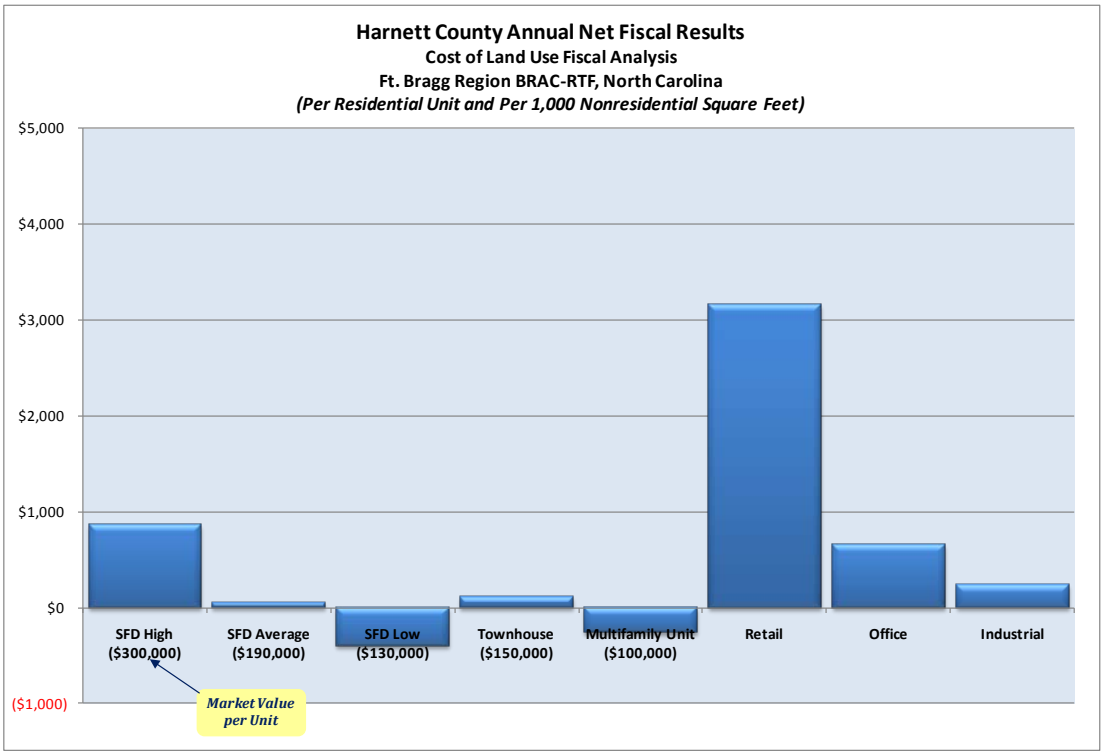


Figure 13. HARNETT COUNTY Annual Net Fiscal Results



As shown in Figure 13, the single family detached unit of $300,000 generates a net surplus. Both a single family detached unit of average value ($190,000) and a townhouse unit essentially break even. All other residential prototype land uses generate net deficits. Because education and human services expenditures comprise over half the County's budget, residential land uses below a certain property value generate fiscal deficits to the County. A single family detached unit with a property value of $300,000 in the County generates sufficient revenues to offset the costs incurred, on average.

All nonresidential land uses generate net fiscal surpluses with retail generating the best results. For retail land uses, the results are driven by "point of sale" sales tax revenues (Article 39 and Article 42). Expenditures are higher for retail land uses than for other nonresidential types but the revenues generated more than cover the expenditures. Other nonresidential land uses generate net surpluses as well due to services provided by the County, of which only 30 percent of the budget is for services provided to both residential and nonresidential land uses.

Because a cost of land use fiscal analysis is an average cost analysis, variable residential expenditures are primarily generated on a per capita basis. Therefore, for some services, all single family detached units will generate the same—or very similar—levels of expenditures due to the same household size and students per unit. Figure 14 provides detail on revenues, expenditures, and net results generated for each prototype.

Figure 14. HARNETT COUNTY Annual Net Fiscal Results (Table)

	Residential (Per Unit)					Nonresidential (Per 1,000 Sq. Ft.)		
HARNETT COUNTY *Market Values*	*SFD High Value* $300,000	*SFD Average Value* $190,000	*SFD Low Value* $130,000	*Townhouse Unit* $150,000	*Multifamily Unit* $100,000	*Retail*	*Office*	*Industrial*
General Fund								
Revenues	$3,079	$2,270	$1,827	$1,726	$1,357	$3,824	$1,055	$382
Expenditures	$2,214	$2,214	$2,214	$1,614	$1,614	$662	$396	$142
Net Fiscal Result	**$865**	**$55**	**($387)**	**$112**	**($257)**	**$3,161**	**$659**	**$240**

Expenditures include an estimate for annual capital costs for schools and other County capital needs. This was estimated using current annual debt service on outstanding school and other debt along with capital outlays included in the current budget. Annual debt service for schools is estimated at $481 per student, which is then allocated to each type of residential unit using the applicable student generation rate. Other debt service payments for other recent capital projects are allocated to residential and nonresidential development accordingly. (Detail is in Appendix A.) However in reality, this capital cost estimate may be understated due to current or past budget constraints. That is, if the current budget is not maintaining current levels of service for capital needs, then using current budget figures may reflect a lower level of service.

By way of example, if **future** school construction costs were modeled assuming an average cost per seat of $30,500[9] instead of **past** expenditures, a single family detached unit of high value will still generate net surpluses but the amount would decrease—a net surplus of $452 versus $865 per unit. All other residential units would generate net deficits—and larger than in the above analysis. This includes the townhouse unit prototype evaluated, which would generate a net deficit of $205 per unit versus a net surplus of $112 per unit.

[9] Fort Bragg Regional Alliance (BRAC-RTF).

HOKE COUNTY COST OF LAND USE RESULTS

LAND USE PROTOTYPES

TischlerBise evaluated eight land use categories for this analysis—five residential and three nonresidential land uses. This section provides further detail on the characteristics of these land use prototypes.

Residential Prototypes

Residential prototypes included in the study are shown in Figure 15. The different prototypes are meant to represent a range of residential development that exists today and will likely be developed in the future. Figure 15 provides a summary of the residential prototypes and their associated characteristics. Estimated household sizes (persons per unit) along with average market and assessed values are shown in the table for each prototype. All single family detached prototypes have the same household size. Also shown is the student generation rate by type of unit. This is derived from U.S. Census American Community Survey PUMS data for a multi-county region that includes Hoke, Moore, Richmond, and Scotland counties and then calibrated to the conditions in Hoke County. We further analyzed this data to derive student generation rates by size of lot. This analysis is provided on page 42. The data in Figure 15 are used to calculate the associated revenue and cost factors in the fiscal impact study. Further detail on residential prototype units is included in Appendix B.

Figure 15. HOKE COUNTY Residential Prototypes

	Land Use Prototype	*Market Value Per Unit (rounded) [1]*	*Assessed Value Per Unit (rounded) [2]*	*Persons Per Unit [3]*	*Students Per Unit [4]*	*Vehicle Trips Per Unit [5]*
	Single Family Detached (SFD)					
1	**SFD High Value**	$300,000	$277,400	3.09	0.428	4.79
2	**SFD Average Value**	$180,000	$166,400	3.09	0.428	4.79
3	**SFD Low Value**	$130,000	$120,200	3.09	0.428	4.79
4	**Townhouse**	$110,000	$101,700	2.72	0.270	2.91
5	**Multifamily**	$100,000	$92,500	2.72	0.270	3.33

[1] TischlerBise analysis of County assessor data, online listings, and staff discussions.
[2] Sales Assessment Ratio from NC Dept. of Revenue for Hoke Co. is 92.47 (revaluation in 2006); therefore assessments are 92.47% of market value.
[3] U.S. Census, American Community Survey, 2005-09 Five-Yr Estimates
[4] U.S. Census, American Community Survey, 2005-2009 Five-Yr PUMS Estimates
[5] Trip Generation, Institute of Transportation Engineers, 2008. Trip rate is adjusted to account for portion attributable to residential unit.

Nonresidential Prototypes

Nonresidential prototypes included in the study are shown in Figure 16. The nonresidential land uses reflect existing and likely future types of nonresidential development in the County. The table below outlines the nonresidential prototypes and their associated characteristics.

Figure 16. HOKE COUNTY Nonresidential Prototypes

	Land Use Prototype [1]	*Market Value Per Sq. Ft. (rounded) [1]*	*Assessed Value Per Sq. Ft. (rounded) [2]*	*Employees Per 1,000 SF [3]*	*Vehicle Trips Per 1,000 SF [4]*
1	**Commercial/Retail**	$50	$46	2.50	22.41
2	**Offices (Prof. and Bus. Srvcs)**	$80	$74	3.91	7.83
3	**Industrial**	$25	$23	1.79	1.91

[1] NC Dept. of Commerce; TischlerBise analysis;
[2] Sales Assessment Ratio from NC Dept. of Revenue for Hoke Co. is 92.47 (revaluation in 2006); therefore assessments are 92.47% of market value.
[3] Institute of Transportation Engineers; Urban Land Institute
[4] Trip Generation, Institute of Transportation Engineers, 2008. Trip rate is adjusted to account for portion attributable to nonresidential.

METHODOLOGY AND APPROACH

The cost and revenue factors have been determined based on the FY 2011 Final Hoke County Budget and discussions with County staff. The analysis is based on *current levels of service*. Current levels of service represent the County's current level of spending for services and facilities. That is, assumptions made in the analysis are based on revenue sources, programs, services, requirements, and policies that are in place today. Detail is provided in the Appendices.

The analysis includes the General Fund, both operating and capital, including County funding for schools. School costs include local current expense and debt service but not state or federal funding. Enterprise funds are not included in the analysis as they are assumed to be self-sustaining. Fire districts are not included. Only those revenues and costs *directly attributed* to the land use are assumed. Indirect, or spin-off, impacts are not included. An average cost approach is taken and where appropriate, revenues and costs are allocated to residential development, nonresidential development, or both.

COST OF LAND USE FISCAL IMPACT RESULTS

The Hoke County Cost of Land Use fiscal impact results are discussed in terms of annual net results for each land use prototype. The figures in this section show net fiscal results by type of land use for residential development and nonresidential development. For residential development, results are shown **per residential unit** and for nonresidential development results are shown **per 1,000 square feet of floor area** in all figures. In Figure 18, data points above the $0 line represent net surpluses; data points below the $0 line represent net deficits.

Figure 17. HOKE COUNTY Annual Revenues and Expenditures by Land Use

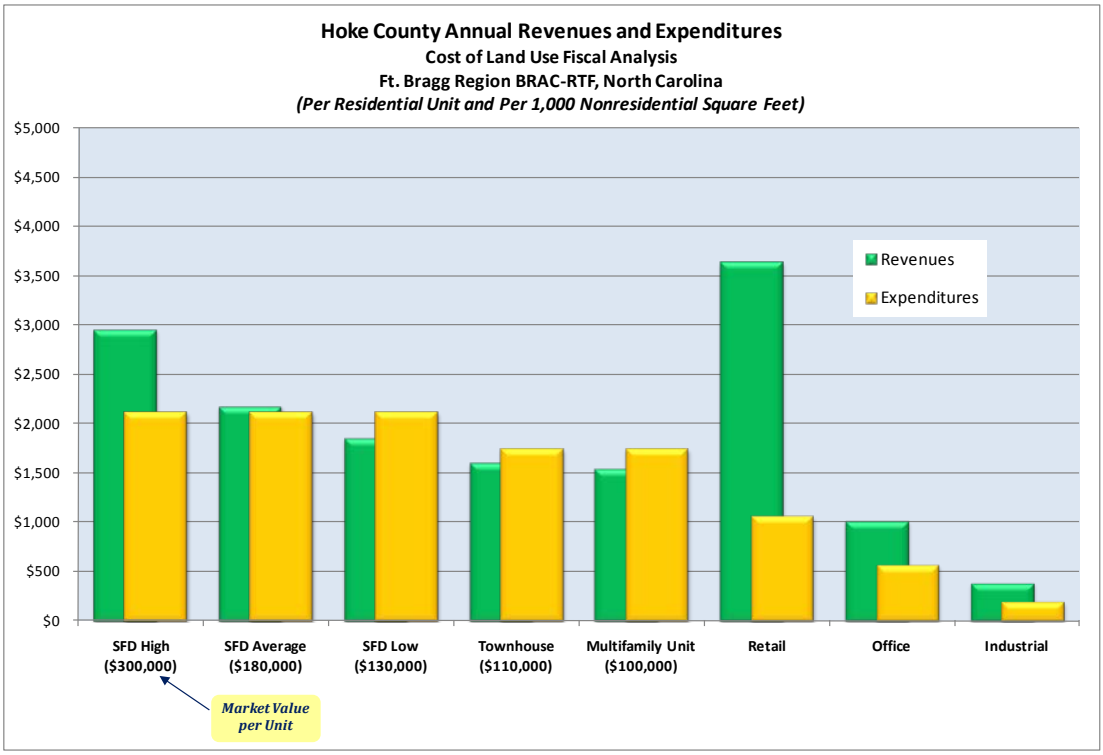
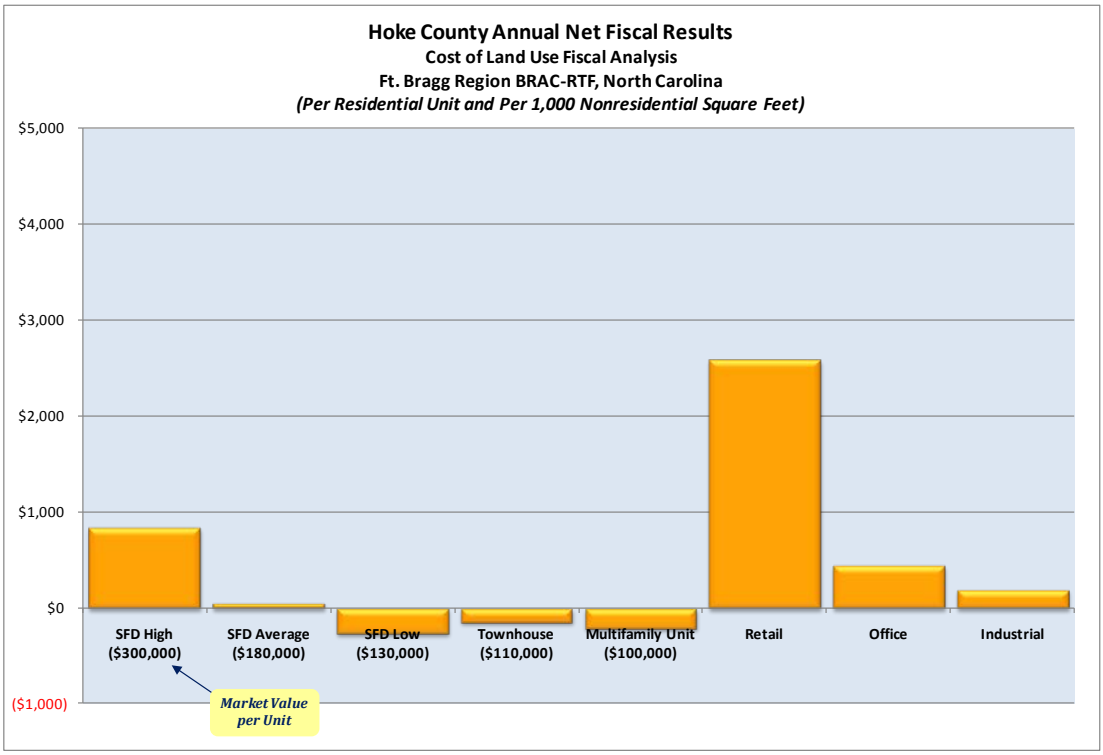


Figure 18. HOKE COUNTY Annual Net Fiscal Results



As shown in Figure 18, the single family detached unit of $300,000 generates a net surplus to the County while all other residential prototype land uses produce net deficits or break even. Because education and human services costs comprise over half the County's budget, residential land uses below a certain property value generate fiscal deficits to the County. A single family detached unit with a property value of $300,000 in the County generates sufficient revenues to offset the costs incurred, on average.

All nonresidential land uses generate net fiscal surpluses with retail generating the best results. The major services provided to nonresidential development, namely public safety, do not generate costs in excess of the direct revenues generated by the land use. For retail land uses, the results are driven by "point of sale" sales tax revenues (Article 39 and Article 42). Expenditures are higher for retail land uses than for other nonresidential types but the amount of revenue generated is sufficient to offset the costs.

Because a cost of land use fiscal analysis is an average cost analysis, variable residential expenditures are primarily generated on a per capita basis. Therefore, for some services, all single family detached units will generate the same—or very similar—levels of expenditures due to the same household size and students per unit. Figure 19 provides detail on revenues, expenditures, and net results generated for each residential prototype.

Figure 19. HOKE COUNTY Annual Net Fiscal Results (Table)

	Residential (Per Unit)					Nonresidential (Per 1,000 Sq. Ft.)		
HOKE COUNTY *Market Values*	*SFD High Value* *$300,000*	*SFD Average Value* *$180,000*	*SFD Low Value* *$130,000*	*Townhouse* *$110,000*	*Multifamily Unit* *$100,000*	*Retail*	*Office*	*Industrial*
General Fund								
Revenues	$2,958	$2,181	$1,858	$1,607	$1,542	$3,643	$1,020	$391
Expenditures	$2,119	$2,119	$2,119	$1,748	$1,748	$1,060	$573	$196
Net Fiscal Result	**$839**	**$62**	**($261)**	**($141)**	**($206)**	**$2,583**	**$447**	**$195**

The expenditures figure includes an estimate for annual capital costs for schools and other County capital needs. This was estimated using current annual debt service on outstanding school and other debt along with another other capital outlay in the current budget. Annual debt service is estimated at $359 per student, which is then allocated to each type of residential unit using the student generation rate. Additional debt service costs were included reflecting outstanding general government facility debt (jail, government facilities). This capital cost estimate may be understated due to current or past budget constraints. That is, if the current budget does not maintain current levels of service for capital needs, then using current budget figures may reflect a lower level of service.

By way of example, if **future** school construction costs were modeled assuming an estimated average cost per seat of $30,500[10] instead of using **existing/past** expenditures (as captured by debt service expenses), a single family detached unit of high value will still generate net surpluses but the amount would decrease significantly—a net surplus of $340 down from $839 per unit. All other residential units would generate net deficits—higher than in the above analysis, ranging from a net deficit of approximately $435 to $760 per unit.

In addition, other General Fund capital improvements may be needed to accommodate growth in the County, which would further increase costs allocated to each prototype land use (depending on the type of facility) and worsen fiscal results.

[10] Fort Bragg Regional Alliance (BRAC-RTF), "White Paper: BRAC-Related Public School Capital Requirements for the Fort Bragg Region," October 23, 2010.

MOORE COUNTY COST OF LAND USE RESULTS

LAND USE PROTOTYPES

TischlerBise evaluated eight land use categories for this analysis—five residential and three nonresidential land uses. This section provides further detail on the characteristics of these land use prototypes.

Residential Prototypes

Residential prototypes included in the study are shown in Figure 20. The different prototypes are meant to represent a range of residential development that exists today and will likely be developed in the future. Figure 20 provides a summary of the residential prototypes and their associated characteristics. Estimated household sizes (persons per unit) along with average market and assessed values are shown in the table for each prototype. All single family detached prototypes have the same household size. Also shown is the student generation rate by type of unit. This is derived from U.S. Census American Community Survey PUMS data for a multi-county region that includes Hoke, Moore, Richmond, and Scotland counties and then calibrated to the conditions in Moore County. We further analyzed this data to derive student generation rates by size of lot. This analysis is provided on page 42. The data in Figure 20 are used to calculate the associated revenue and cost factors in the fiscal impact study. Further detail on residential prototype units is included in Appendix B.

Figure 20. MOORE COUNTY Residential Prototypes

	Land Use Prototype	*Market Value Per Unit (rounded) [1]*	*Assessed Value Per Unit (rounded) [2]*	*Persons Per Unit [3]*	*Students Per Unit [4]*	*Vehicle Trips Per Unit [5]*
	Single Family Detached (SFD)					
1	**SFD High Value**	$500,000	$482,600	2.57	0.298	4.79
2	**SFD Average Value**	$300,000	$289,600	2.57	0.298	4.79
3	**SFD Low Value**	$180,000	$173,700	2.57	0.298	4.79
4	**Townhouse**	$250,000	$241,300	1.90	0.183	2.91
5	**Multifamily**	$150,000	$144,800	1.90	0.183	3.33

[1] TischlerBise analysis of County assessor data, online listings, and staff discussions.
[2] Sales Assessment Ratio from NC Dept. of Revenue for Moore Co. is 96.52 (revaluation in 2007); therefore assessments are 96.52% of market value.
[3] U.S. Census, American Community Survey, 2005-09 Five-Yr Estimates
[4] U.S. Census, American Community Survey, 2005-2009 Five-Yr PUMS Estimates
[5] Trip Generation, Institute of Transportation Engineers, 2008. Trip rate is adjusted to account for portion attributable to residential unit.

Nonresidential Prototypes

Nonresidential prototypes included in the study are shown in Figure 21. The nonresidential land uses reflect existing and likely future types of nonresidential development in the County. The table below outlines the nonresidential prototypes and their associated characteristics.

Figure 21. MOORE COUNTY Nonresidential Prototypes

	Land Use Prototype [1]	*Market Value Per Sq. Ft. (rounded) [1]*	*Assessed Value Per Sq. Ft. (rounded) [2]*	*Employees Per 1,000 SF [3]*	*Vehicle Trips Per 1,000 SF [4]*
1	**Commercial/Retail**	$115	$111	2.50	22.41
2	**Offices (Prof. and Bus. Srvcs)**	$150	$145	3.91	7.83
3	**Industrial**	$30	$29	1.79	1.91

[1] NC Dept. of Commerce, TischlerBise analysis
[2] Sales Assessment Ratio from NC Dept. of Revenue for Moore Co. is 96.52 (revaluation in 2007); therefore assessments are 96.52% of market value.
[3] Institute of Transportation Engineers; Urban Land Institute
[4] Trip Generation, Institute of Transportation Engineers, 2008. Trip rate is adjusted to account for portion attributable to nonresidential.

METHODOLOGY AND APPROACH

Cost and revenue factors have been determined based on the FY 2011 Final Moore County Budget and discussions with County staff. The analysis is based on *current levels of service*. Current levels of service represent the County's current level of spending for services and facilities. That is, assumptions made in the analysis are based on revenue sources, programs, services, requirements, and policies that are in place today. Detail is provided in the Appendices.

The analysis includes the General Fund, both operating and capital, including County funding for schools. School costs include local current expense and debt service but not state or federal funding. Enterprise funds are not included in the analysis as they are assumed to be self-sustaining. Fire districts are not included. Only those revenues and costs *directly attributed* to the land use are assumed. Indirect, or spin-off, impacts are not included. An average cost approach is taken and where appropriate, revenues and costs are allocated to residential development, nonresidential development, or both.

COST OF LAND USE FISCAL IMPACT RESULTS

The Moore County Cost of Land Use fiscal impact results are discussed in terms of annual net results for each land use prototype. The figures in this section show net fiscal results by type of land use for residential development and nonresidential development. For residential development, results are shown **per residential unit** and for nonresidential development results are shown **per 1,000 square feet of floor area** in all figures. In Figure 23, data points above the $0 line represent net surpluses; data points below the $0 line represent net deficits.

Figure 22. MOORE COUNTY Annual Revenues and Expenditures by Land Use

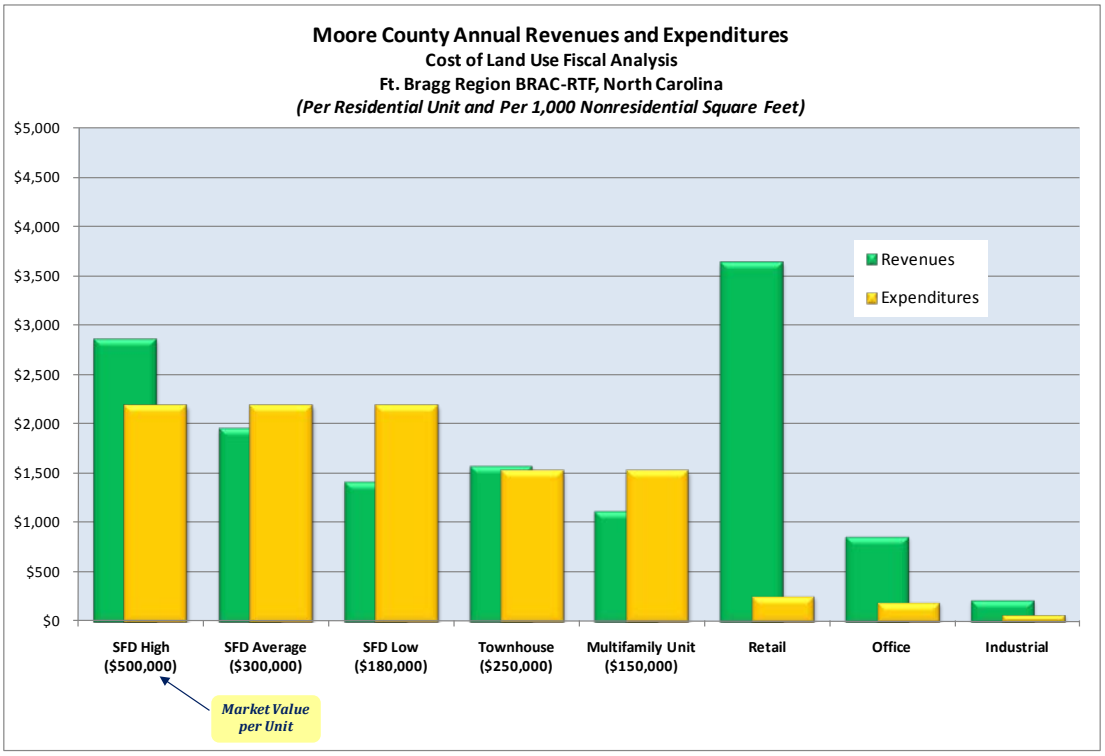
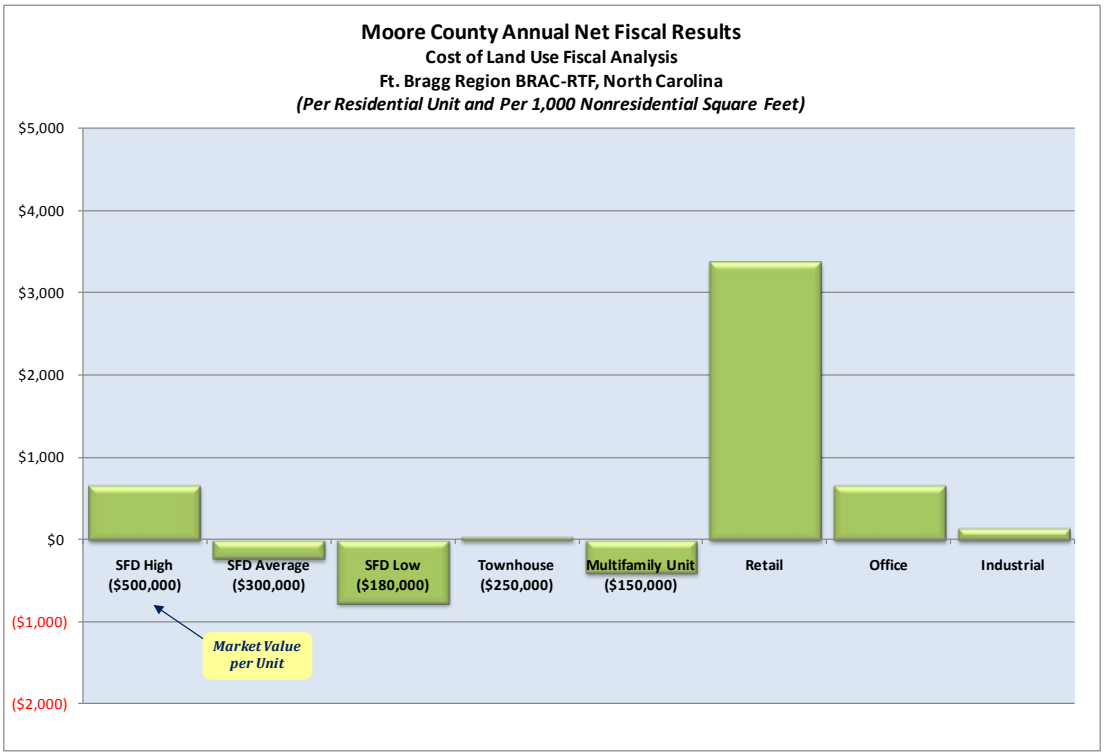


Figure 23. MOORE COUNTY Annual Net Fiscal Results



As shown in Figure 23, the single family detached unit of $500,000 generates a net surplus to the County while all other residential prototype land uses produce net deficits or are fiscally neutral. Because of the major services provided by the County, namely education and human services—residential land uses below a certain property value generate fiscal deficits to the County. A single family detached unit with a property value of $500,000 in the County generates sufficient revenues to offset the costs incurred, on average. A single family detached unit of $300,000, reflecting average value in the County, and a townhouse unit of $250,000 are closer to "breaking even" than the other units examined with the average-value single family unit generating net deficits.

All nonresidential land uses generate net fiscal surpluses with retail generating the best results. For retail land uses, the results are driven by "point of sale" sales tax revenues (Article 39 and Article 42). Expenditures are higher for retail land uses than for other nonresidential types but the amount of revenue generated is sufficient to offset the costs.

Because a cost of land use fiscal analysis is an average cost analysis, variable residential expenditures are primarily generated on a per capita basis. Therefore, for some services, all single family detached units will generate the same—or very similar—levels of expenditures due to the same household size and students per unit. Figure 24 provides detail on revenues, expenditures, and net results generated for each residential prototype.

Figure 24. MOORE COUNTY Annual Net Fiscal Results (Table)

	Residential (Per Unit)					Nonresidential (Per 1,000 Sq. Ft.)		
MOORE COUNTY *Market Values*	*SFD High Value* *$500,000*	*SFD Average Value* *$300,000*	*SFD Low Value* *$180,000*	*Townhouse Unit* *$250,000*	*Multifamily Unit* *$150,000*	*Retail*	*Office*	*Industrial*
General Fund								
Revenues	$2,863	$1,966	$1,427	$1,580	$1,131	$3,642	$871	$225
Expenditures	$2,192	$2,192	$2,192	$1,528	$1,528	$267	$201	$79
Net Fiscal Result	**$671**	**($226)**	**($765)**	**$51**	**($397)**	**$3,375**	**$670**	**$146**

The expenditures figure includes an estimate for annual capital costs for schools and other County capital needs. This was estimated using current annual debt service on outstanding school and other debt along with another other capital outlay in the current budget. Annual debt service is estimated at $390 per student, which is then allocated to each type of residential unit using the applicable student generation rate. In addition, other outstanding General Fund backed debt service was included and allocated to population and jobs in the County to estimate additional demand for infrastructure by type of land use. This capital cost estimate may be understated due to current budget constraints. That is, if current and previous budgets did not maintain current levels of service for capital needs, then using current budget figures may reflect a lower level of service.

By way of example, if **future** school construction costs were modeled assuming an average cost per seat of $30,500[11] instead of **past** expenditures, a single family detached unit of high value will still generate net surpluses but the amount would decrease—a net surplus of $334 down from $671 per unit. All other residential units would generate net deficits—higher than in the above analysis, ranging from a net deficit of approximately $156 to $1,100 per unit.

[11] Fort Bragg Regional Alliance (BRAC-RTF).

WHAT'S THE FISCAL IMPACT OF AGRICULTURE?

The three counties under study have over 250,000 acres of farms. Farms are generally considered compatible land uses with military bases. Therefore, one should ask, are farms fiscally sustainable for local governments? Do they generate enough revenues to cover the services and infrastructure they require? *The short answer is "yes."*

We compiled information from the U.S. Census of Agriculture (2007), North Carolina Department of Agriculture, North Carolina Department of Revenue and Working Land Protection Plans for each of the counties in our analysis. From this information, we determined average size farm in each county, estimated number of employees (hired labor) per farm and an estimated assessed value for an average size farm in each county.

To determine assessed values, we were conservative and assumed values from the North Carolina Present-Use Value Program. The Present-Use Value Program allows farms to be assessed at the value of the property's present use rather than its "highest and best use." That is, the property is taxed as a farm (its "present use") as opposed to its potential use (and value) as residential or commercial property. We were doubly conservative by assuming that farm land was of average quality (Class II) with a current present use value of $660 per acre. (It should be noted that farms are treated as nonresidential land use, therefore population or students were not assumed.)

Our analysis reveals that farms in all counties generate net surpluses. Revenues are typically twice the expenditures generated with the net surpluses per acre ranging from approximately $2.00 to $3.00 per acre. A summary is provided below in Figure 25.

Figure 25. Agriculture Fiscal Results

	Harnett County	*Hoke County*	*Moore County*
Revenues per Avg. Size Farm*	$782	$1,408	$380
Expenditures per Avg. Size Farm	$359	$702	$153
Net Fiscal Results	**$423**	**$706**	**$228**
Average Size Farm (Acres)	154	242	100
Net Surplus Per Acre	***$2.75***	***$2.92***	***$2.28***

** Assumes Present Use Value for property tax revenues*
Sources: USDA Census of Agriculture, 2007; NC Department of Revenue; TischlerBise

Each county in the Fort Bragg region has completed a "Working Lands Protection Plan" to identify opportunities for farmland preservation. The plans provide rich information on agriculture in the region and tools for its preservation. See www.bracrtf.com for copies of the plans.

TOWN OF ABERDEEN COST OF LAND USE RESULTS

LAND USE PROTOTYPES

For the Town of Aberdeen, TischlerBise evaluated the same eight land use categories as is done for the counties—five residential and three nonresidential land uses. Aberdeen is located in Moore County, however, data are specific to the Town where applicable. This section provides further detail on the characteristics of these land use prototypes.

Residential Prototypes

Residential prototypes included in the study are shown in Figure 26. The different prototypes are meant to represent a range of residential development that exists today and will likely be developed in the future. Figure 26 provides a summary of the residential prototypes and their associated characteristics. Estimated household sizes (persons per unit) along with average market and assessed values are shown in the table for each prototype. All single family detached prototypes have the same household size. The data in Figure 26 are used to calculate the associated revenue and cost factors in the fiscal impact study. Further detail on residential prototype units is included in Appendix B.

Figure 26. TOWN OF ABERDEEN Residential Prototypes

	Land Use Prototype	*Market Value Per Unit (rounded) [1]*	*Assessed Value Per Unit (rounded) [2]*	*Persons Per Unit [3]*	*Students Per Unit [4]*	*Vehicle Trips Per Unit [5]*
	Single Family Detached (SFD)					
1	**SFD High Value**	$450,000	$434,300	2.40	N/A	4.79
2	**SFD Average Value**	$220,000	$212,300	2.40	N/A	4.79
3	**SFD Low Value**	$150,000	$144,800	2.40	N/A	4.79
4	**Townhouse**	$150,000	$144,800	1.44	N/A	2.91
5	**Multifamily**	$100,000	$96,500	1.44	N/A	3.33

[1] TischlerBise analysis of County assessor data, online listings, and staff discussions.
[2] Sales Assessment Ratio from NC Dept. of Revenue for Moore Co. is 96.52 (revaluation in 2007); therefore assessments are 96.52% of market value.
[3] U.S. Census, American Community Survey, 2005-09 Five-Yr Estimates
[4] U.S. Census, American Community Survey, 2005-2009 Five-Yr PUMS Estimates
[5] Trip Generation, Institute of Transportation Engineers, 2008. Trip rate is adjusted to account for portion attributable to residential unit.

Nonresidential Prototypes

Nonresidential prototypes included in the study are shown in Figure 27. The nonresidential land uses reflect existing and likely future types of nonresidential development in the Town. The table below outlines the nonresidential prototypes and their associated characteristics.

Figure 27. TOWN OF ABERDEEN Nonresidential Prototypes

	Land Use Prototype [1]	*Market Value Per Sq. Ft. (rounded) [1]*	*Assessed Value Per Sq. Ft. (rounded) [2]*	*Employees Per 1,000 SF [3]*	*Vehicle Trips Per 1,000 SF [4]*
1	**Commercial/Retail**	$120	$116	2.00	22.41
2	**Offices (Prof. and Bus. Srvcs)**	$150	$145	3.32	7.83
3	**Industrial**	$40	$39	1.79	1.91

[1] NC Dept. of Commerce, TischlerBise analysis
[2] Sales Assessment Ratio from NC Dept. of Revenue for Moore Co. is 96.52 (revaluation in 2007); therefore assessments are 96.52% of market value.
[3] Institute of Transportation Engineers; Urban Land Institute
[4] Trip Generation, Institute of Transportation Engineers, 2008. Trip rate is adjusted to account for portion attributable to nonresidential.

METHODOLOGY AND APPROACH

The cost and revenue factors have been determined based on the FY 2011 Final Town of Aberdeen Budget and discussions with Town staff. The analysis is based on *current levels of service*. Current levels of service represent the Town's current level of spending for services and facilities. That is, assumptions made in the analysis are based on revenue sources, programs, services, requirements, and policies that are in place today. Detail is provided in the Appendices.

The analysis includes the General Fund, both operating and capital where applicable. Enterprise funds are not included in the analysis as they are assumed to be self-sustaining. Only those revenues and costs *directly attributed* to the land use are assumed. Indirect, or spin-off, impacts are not included. An average cost approach is taken and where appropriate, revenues and costs are allocated to residential development, nonresidential development, or both.

COST OF LAND USE FISCAL IMPACT RESULTS

The Town of Aberdeen Cost of Land Use fiscal impact results are discussed in terms of annual net results for each land use prototype. The figures in this section show net fiscal results by type of land use for residential development and nonresidential development. For residential development, results are shown **per residential unit** and for nonresidential development results are shown **per 1,000 square feet of floor area** in all figures. In Figure 29, data points above the $0 line represent net surpluses; data points below the $0 line represent net deficits.

Figure 28. TOWN OF ABERDEEN Annual Revenues and Expenditures by Land Use

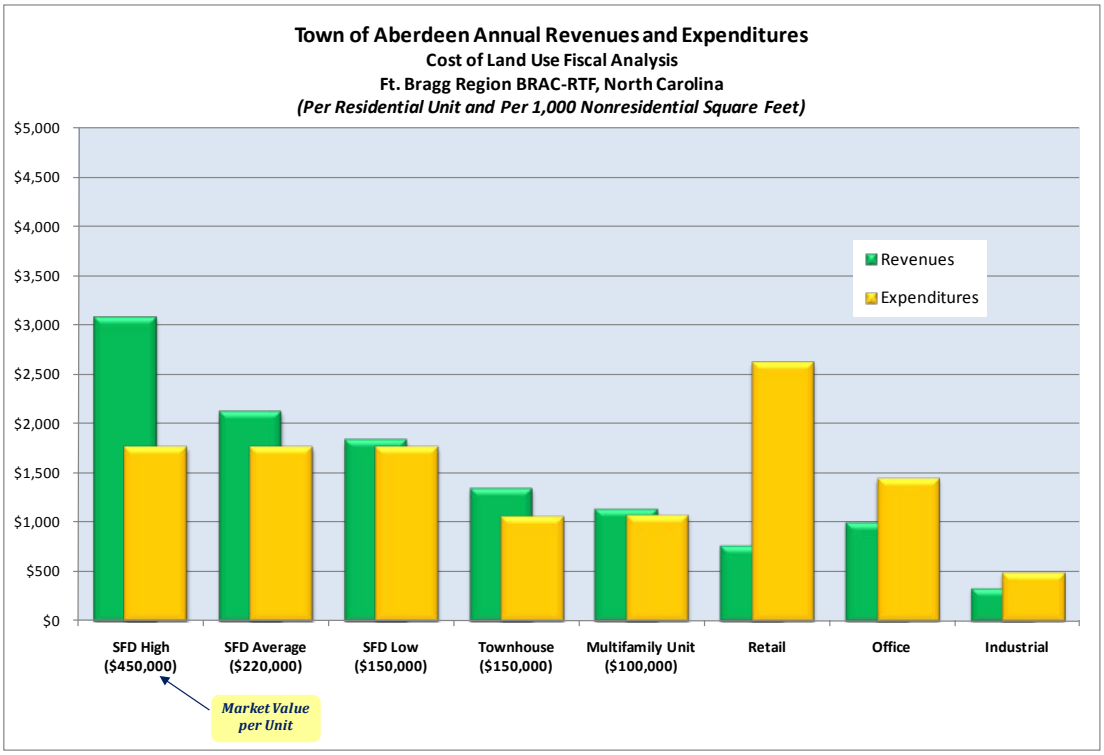
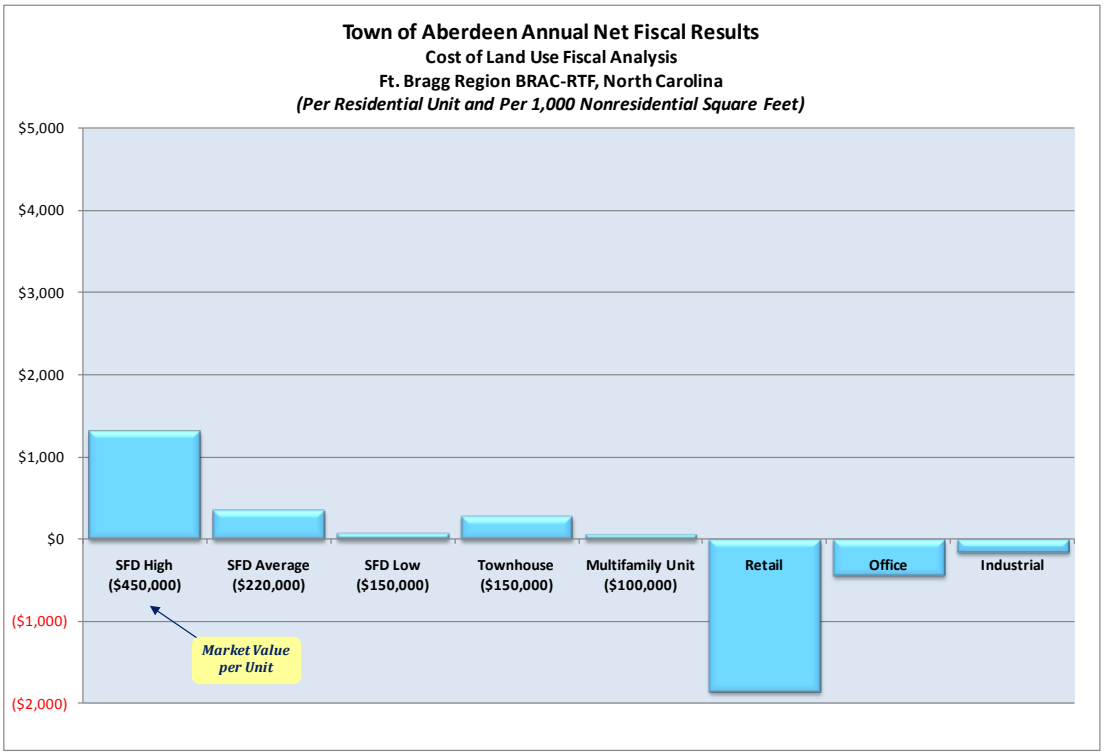


Figure 29. TOWN OF ABERDEEN Annual Net Fiscal Results



Unlike the County results, all residential units generate net surpluses to the Town while all nonresidential land uses generate net deficits. This is due to revenue structure and services provided by the Town. Major Town services of police, fire, and streets are provided to nonresidential development—particularly retail development—and the commensurate revenues from the nonresidential development are insufficient to cover the costs. This is particularly true for retail development where the Town does not receive a point of sale sales tax but costs for police, fire, and streets are significant.

On the other hand, residential development at the values examined in this analysis generates sufficient revenues to cover the costs incurred, with the lower value units essentially breaking even. Revenues attributed to residential development include not only property taxes but sales tax revenue that is distributed to the municipalities located within Moore County on a per capita basis. Therefore, residential development gets "credit" for this revenue source, which offsets public costs.

Because a cost of land use fiscal analysis is an average cost analysis, variable residential expenditures are primarily generated on a per capita basis. Therefore, for some services, all single family detached units will generate the same—or very similar—levels of expenditures due to the same household size and number of vehicle trips per unit. Figure 30 provides detail on revenues, expenditures, and net results generated for each prototype.

Figure 30. TOWN OF ABERDEEN Annual Net Fiscal Results (Table)

	Residential (Per Unit)					Nonresidential (Per 1,000 Sq. Ft.)		
TOWN OF ABERDEEN	*SFD High Value*	*SFD Average Value*	*SFD Low Value*	*Townhouse Unit*	*Multifamily Unit*	*Retail*	*Office*	*Industrial*
Market Values	*$450,000*	*$220,000*	*$150,000*	*$150,000*	*$100,000*			
General Fund								
Revenues	$3,081	$2,126	$1,836	$1,351	$1,144	$771	$1,007	$341
Expenditures	$1,767	$1,767	$1,767	$1,062	$1,078	$2,624	$1,447	$500
Net Fiscal Result	**$1,314**	**$359**	**$69**	**$289**	**$66**	**($1,853)**	**($440)**	**($159)**

The expenditures figure includes an estimate for annual capital costs. This was estimated using current annual debt service on outstanding debt along with an estimated annual debt service amount for an additional planned fire station (detail is provided in Appendix A). This capital cost estimate may be understated due to current budget constraints. That is, if current and previous budgets did not maintain current levels of service for capital needs, then using current budget figures may reflect a lower level of service than is currently provided.

DOES HIGHER DENSITY DEVELOPMENT PRODUCE MORE STUDENTS PER UNIT?

As part of this analysis, TischlerBise analyzed U.S. Census data from the American Community Survey 5-Year 2005-2009 Public Users Microdata Sample (PUMS) files for the three counties included in the study. PUMS microdata are from individual responses to long-form Census questionnaires conducted as part of the American Community Survey (ACS). The Census Bureau collects ACS data from a sample of the population in the United States and Puerto Rico--rather than from the whole population as is done in the decennial census. All ACS data are survey *estimates*. Microdata allows users to tabulate the data to investigate relationships between different housing and population characteristics. Geographic areas of roughly 100,000 people, also known as Public Use Microdata Areas (PUMA), serve as the minimum population threshold for data reporting, therefore multiple counties are often grouped together in one PUMA.

For this fiscal analysis of three counties, two PUMA areas were analyzed: NC PUMA 03100 for Harnett and Lee counties and NC PUMA 03900 for Hoke, Moore, Richmond, and Scotland counties. For each PUMA area, TischlerBise derived the estimated number of public school students per unit —both by type of housing unit (single family detached, multifamily) as well as by size of lot. The result is a student generation rate for the PUMA as a whole. From there, we calibrate the rates using current student enrollment and number of housing units in each county to determine whether the average regional rate needs to be adjusted upward or downward to reflect conditions in the county under study.

To estimate school costs in this study, we use an average estimated Student Generation Rate (SGR) by type of housing unit. Given the potential for incompatibility with Fort Bragg from higher density residential development, we drilled down into the data to determine if houses on smaller lots generate more or fewer public school students per unit.

We found that the effects of lot size vary by County. For each of the three counties in the study, the ***greatest number of students per unit is from units on 10 acres or less***. Figure 31 shows estimated students per unit by size of lot along with the average rate for single family detached units.

- In Harnett County, a unit on less than 1 acre yields the largest number of students with the number of students decreasing as lot size increases.
- In Hoke and Moore counties, units on 1 to 10 acres yield the highest number of students per unit. The rates for units on less than 1 acre and greater than 10 acres are lower than the highest rate.

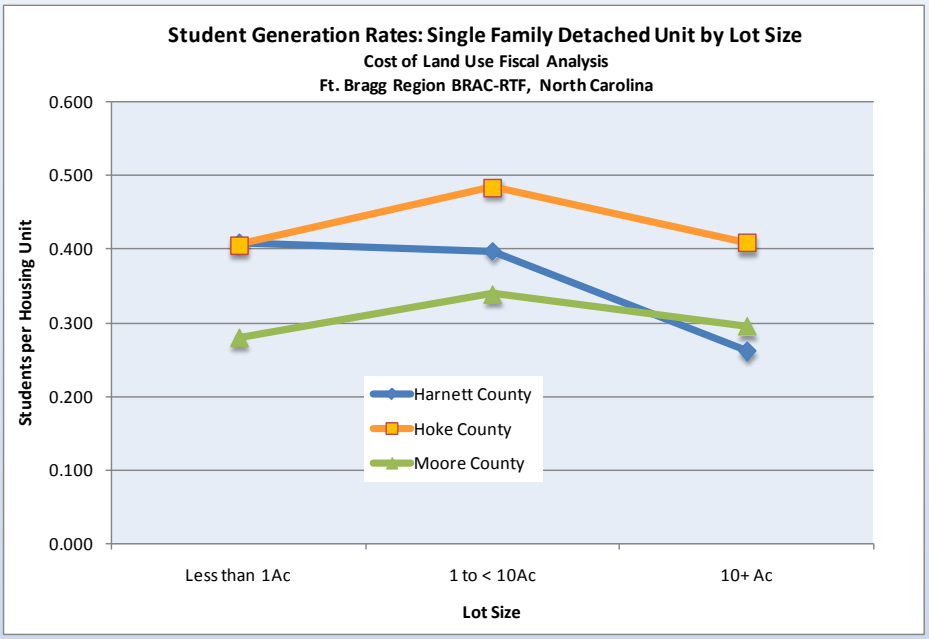
Results are shown below with the highest number of students per unit highlighted:

Figure 31. Student Generation Rates by Lot Size

	Single Family Detached Unit			
	Less than 1Ac	*1 to < 10Ac*	*10+ Ac*	*Average*
Harnett County	0.409	0.397	0.261	0.396
Hoke County	0.406	0.485	0.409	0.428
Moore County	0.280	0.339	0.295	0.298

Source: TischlerBise cross tabulation; U.S. Census, Year 2005-2009 American Community Survey PUMS data

Figure 32. Student Generation Rates by Lot Size (Graph)



This results in differences in school costs by size of lot. We derived an estimated education expense[12] per student for each county and multiplied it by the above student generation rates to determine estimated expenditures for single family houses on different lot sizes. The results are shown in Figure 33 and Figure 34. The highest cost per unit is highlighted below. As shown, in each county ***the highest costs are generated on lots less than an acre in Harnett and from 1 to 10 acres in Hoke and Moore counties***.

[12] The expenditure figure includes local expenditures for current operating expense and capital outlay plus annual debt service for schools.

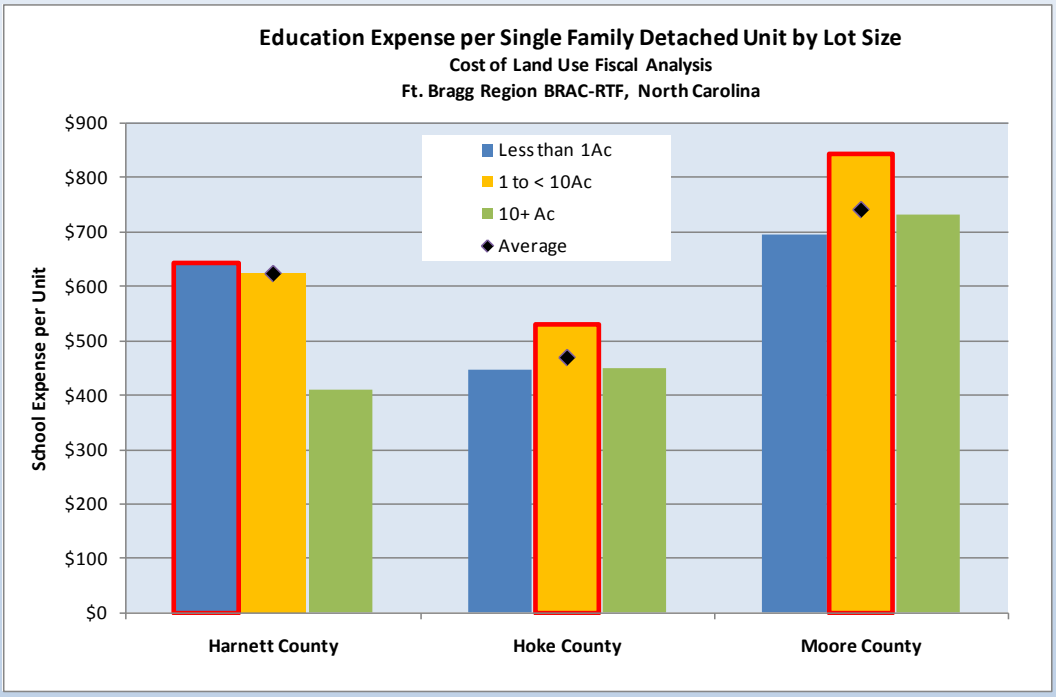
Figure 33. Local Education Expenditures per Single Family Unit by Lot Size

	Annual Education Costs per Student		
	Current Expense & Capital Outlay	*Annual Debt Service*	*TOTAL*
Harnett County	$1,090	$481	**$1,571**
Hoke County	$737	$359	**$1,097**
Moore County	$2,095	$390	**$2,486**

	Education Cost per Single Family Unit by Lot Size			
	Less than 1Ac	*1 to < 10Ac*	*10+ Ac*	*Average*
Harnett County	$643	$623	$411	$623
Hoke County	$445	$531	$449	$470
Moore County	$696	$844	$732	$740

Source: TischlerBise; County budgets.

Figure 34. Local Education Expenditures per Single Family Unit by Lot Size (Graph)



ECONOMIC IMPACT OF FORT BRAGG

There is no denying that the Fort Bragg/Pope Air Force Base is a major economic engine in the region. The Base currently employs approximately 52,000 military personnel and 12,700 civilian personnel with an estimated economic impact in the 11-county region of $9.5 billion.[13] Over 60 percent of military personnel live off-base. A summary is provided below:

Figure 35. Fort Bragg Economic Impact

	FY 2009
Total Military Workforce*	52,959
Total Civilian Workforce	12,696
Total Workforce	65,655
Military Pay ($millions)	$2,435
Civilian Pay ($millions)	$501
Total Pay ($millions)	$2,936
Estimated Direct and Indirect Impact ($millions)**	$9,485

** Does not include Pope AFB*
*** On 11-county region*
Source: XVII Airborne Corps & Fort Bragg Public Affairs Office

Growth at the base due to BRAC is projected to add approximately 8,700 military and direct civilian jobs[14] as well as spin-off employment due to military investment in the region totaling 19,200 jobs by 2013. Researchers at Fayetteville University estimated indirect and induced job growth of an additional 4,504 jobs in the short-term.[15] They project additional economic impact from this growth at **$2.4 billion** over three years, including short-term construction impacts and permanent employment.[16] The Comprehensive Regional Growth Plan projects a total of 44,618 jobs will be created by 2016 as a result of both normal growth and the additional military investment in the region.[17] With the increase in economic activity due to base expansion, the issue of incompatibility is likely to persist.

[13] XVII Airborne Corps & Fort Bragg PAO, Fiscal Year 2009.
[14] Fort Bragg BRAC-RTF, Comprehensive Regional Growth Plan for the Fort Bragg Region, 2008.
[15] Nijhawan, Inder and Pamela Jackson, "Economic Impact of Base Realignment and Closing on the Fort Bragg Region and the Largest Army Base in the United States," *Proceedings of the Academy for Economics and Economic Studies, Vol. 13, No. 2*, 2010.
[16] Ibid.
[17] Fort Bragg Regional Growth Plan, Chapter 3: Workforce and Higher Education.

Incompatibility issues at military installations are monitored by the Department of Defense through the annual *Sustainable Ranges Report*, which includes a detailed evaluation of levels of encroachment and the impact to capability and mission readiness at training ranges. The Report provides a scorecard for each base with an "encroachment score" as well as an estimate of the share of areas with different levels of risk—minimal, moderate, or severe. The *2010 Sustainable Ranges Report* gave Fort Bragg an encroachment score of 9.17 (on a scale of 1 to 10 with 10 being the least amount of encroachment) with 17 percent of its mission areas identified as moderately impacted by encroachment. Fort Bragg's score is slightly lower than the average Army score of 9.22 (with 15 percent of mission areas identified as having moderate risk to the Army's mission and .2 percent with severe risk). The three items identified as having the most significant impact at Fort Bragg are:

1. The Threatened and Endangered Species/Critical Habitat, Noise Restriction, and Adjacent Land Use Encroachment Factors have the greatest impact on the training mission.
2. Movement and Maneuver is the training mission that is the most impacted.
3. Army efforts to protect the Red Cockaded Woodpecker habitat have reduced most endangered species encroachment impacts and future efforts will address rapidly sprawling development from Fayetteville due to BRAC. Specifically, the Army is seeking to address future impacts through the use of the Army Compatible Use Buffer Program.[18]

Incompatible land use at Fort Bragg has resulted in restrictions on training on the base. Heavy equipment drops were eliminated at the St. Mere Eglise Drop Zone due to nearby off-base residential development. While the area can still be used for less intense uses (such as paratrooper drops and helicopter landing and pick-up zones), the restriction caused a unit to relocate to Arizona. While only approximately 100 personnel were affected, this served as a wake-up call to the community. A second example is development that occurred adjacent to Fort Bragg's ammunition storage facility. The facility is slated to be moved due to new road construction however, the proximity of residential development as well as an elementary school was another sounding bell for the community to address incompatibility.

The *2010 Sustainable Ranges Report* summarizes the challenge as follows:

> *While the Army's requirement for training land grows, the capacity of and accessibility to Army lands is decreasing. There are significant challenges that must actively be addressed to sustain training on Army land. The Army is competing with its neighbors for access to land, airspace, and frequency spectrum. Urbanization and sprawl are encroaching on military lands and creating "islands of biodiversity" on Army installations. Urbanization has concentrated endangered species and their habitats on areas traditionally used for military training. Environmental restrictions tend to translate into reduced accessibility to training land.*[19]

[18] U.S. Department of Defense. *2010 DoD Report to Congress on Sustainable Ranges*, May 2010, p. 26
[19] *2010 Sustainable Ranges Report*, p. 28.

The primary concern for the military is the ability to train in support of mission readiness. Incompatible land use affects this capability because of potential limitations to training activities due to safety issues—both for local development outside the base and for on-base military personnel. Also, due to increased urbanization, military installations are increasingly serving as natural habitats that may house endangered or threatened species. This is the case at Fort Bragg where preserving natural habitats on the periphery of the installation prevents further migration of endangered and protected species onto the base in which case the Army would be required to protect those habitats. In general, as a result of incompatible land uses, "workarounds" have to occur, which "increase mission risk, and mission risk can build over time before a specific mission failure is evident."[20] The ultimate consequence of excessive encroachment could be closure or realignment of the base.

Military bases are both their own communities and part of a larger community. Local governments surrounding Fort Bragg provide services and infrastructure such as parks and recreation, schools, and roads. Over 60 percent of Fort Bragg's military personnel and their dependents live off-base and utilize services and resources provided by local governments. A local government's fiscal condition affects its ability to provide these services. In total it contributes to an overall "quality of life" for the entire community—both on and off base.

To address incompatible land uses, stakeholders need to better understand why allowing certain land uses are detrimental to the mission. And if those uses are allowed, what the ultimate consequences could be. A common theme in many evaluations of military-community relations is the need for better communication between the installation and the community. For example, a National Academy of Public Administration Panel identified several "lessons learned," in their evaluation of the Joint Land Use Study (JLUS) program, including:

> Englin Air Force Base, Florida: *"A similar [increased] education for locally elected officials on the benefits and utility of the JLUS process, as well as the need to understand the impacts communities have on the military mission, is an important factor for improving future relations between communities and their neighboring military installations."*[21]
>
> Hampton Roads/Naval Air Station Oceana, Virginia: Actions identified as crucial for success:
>
> - Jurisdictions should: "*Improve communication and public education with regard to the AICUZ, JLUS, and other land use conflicts.*
> - Military should work toward*: "Improving communication with, and education materials for, the civilian community.*

[20] U.S. Department of Defense, *2010 DoD Report to Congress on Sustainable Ranges.*
[21] National Academy of Public Administration, *Strengthening National Defense: Countering Encroachment through Military-Community Collaboration*, September 2009; Appendix F, p. F-59.

Fort Bragg and its regional and collaborative planning efforts among military and local government stakeholders are often used as a model case study. The information in this report providing specific impacts to local governments should help augment existing planning and communication efforts.

IMPLEMENTATION TOOLS

A number of measures have been implemented in the Fort Bragg region over the years to address the issue of incompatible land uses. In addition to the military mission, the protection of natural habitats, particularly the Red Cockaded Woodpecker, has been a driving force for many efforts. While not exhaustive, the following is a summary of relevant recent efforts:

- Studies and Plans such as the *Fort Bragg/Pope AFB 2008 Joint Land Use Study* and *Fort Bragg BRAC-RTF Comprehensive Regional Growth Plan (CRGP),* including a number of implementation measures identified by the CRGP.
- "Working Lands Protection Plans" have been completed for each of the BRAC counties outlining ways to preserve agricultural and other natural resource lands.
- State legislation has been passed that requires real estate disclosures when property is transferred in the area surrounding military installations in North Carolina.
- The Regional Land Use Advisory Commission (RLUAC) reviews rezonings and subdivisions in the 5-mile area surrounding the base and provides advisory findings.
- Local governments surrounding the base have updated their comprehensive plans in recent years to reflect the changes due to BRAC. Many of the plans have addressed incompatible land uses.

FISCAL TOOLS

School expenditures are significant for the Counties in the Fort Bragg region. The Fort Bragg Regional Alliance estimates an additional 5,980 increase in student enrollment in the affected area. This translates to increased annual operating costs and one-time capital expenses. Taking an average rounded total local expenditure per student from this analysis of $2,000, the estimated *annual* impact when these additional students are enrolled is almost $12 million. This figure does not include one-time future school construction costs necessary to provide additional capacity. Current regional school construction needs are estimated at approximately $220 million and that is not a complete list.[22] These costs will be primarily borne locally through property taxes if other sources of funding are not secured. Relevant financial tools are identified below.

[22] Fort Bragg Regional Alliance (BRAC-RTF).

Federal Impact Aid

Federal impact aid is provided by the U.S. Department of Education to cover the impacts from activities on federal land—in this case, student enrollment from Fort Bragg. An in-depth analysis of federal impact aid is beyond the scope of this assignment, however our discussions with local staff indicate that the formula used to derive aid amounts is outdated. Federal impact aid for Fiscal Year 2010 reflects a range of $70 to $243 per federal student in the study counties. Cumberland County is shown for comparison purposes as well.

Figure 36. Federal Impact Aid to Schools

	FY10 Payment	*Total Federal Students*	***Average Per Federal Student***
Harnett Co. Board of Education	$304,345	2,158	**$141.03**
Hoke Co. Board of Education	$375,009	1,544	**$242.88**
Moore Co. Schools	$48,608	700	**$69.44**
Weighted Average	*$727,962*	*4,402*	***$165.37***
Cumberland Co. Board of Education	$5,106,534	15,854	**$322.10**

Source: National Association of Federally Impacted Schools

The formula takes into consideration the number of federally-related students and whether students are living on or off base, in low-rent housing, as well as local spending effort and need for education. This results in a wide range of funding per student not necessarily dependent on the number of federally-connected students in the local school system. The program starts from the premise that it will only cover half of the state and local education operating costs. A student who attends school off post, but who lives on post and whose parent works on post is counted as 1 student. However, a student who attends school off post and who lives off post but whose parent works on post is counted as only 20% of a student. In addition, the program historically has not been fully funded and lack of full funding causes yet another formula to be applied that further penalizes the region's military families and communities.

Impact Fees

Impact fees are one-time fees paid by new development to offset the cost of new public capital projects—like new schools that are needed to serve growth. Impact fees are a way to ensure that adequate infrastructure is provided to maintain levels of service—without shifting the costs to all taxpayers in the County. This additional revenue then frees up tax dollars to support ongoing operating impacts from the growth. Unfortunately, in North Carolina only a few counties have the authority from the state to implement impact fees. For the counties in the Fort Bragg region to pursue impact fees, special State legislative authority would be needed. Given the magnitude of the growth due to forces

beyond the counties' control, impact fees could be a valuable tool to finance school construction in the region.

Revenue Sharing

Revenue sharing would entail interlocal agreements to pool revenues and distribute to participating jurisdictions according to an agreed-upon formula. Although revenue sharing is not common, there is a system in Minneapolis-St. Paul that has been in existence since the 1970s. The program was established by State Act (Minnesota Fiscal Disparities Act of 1971) and was an innovative attempt to address growing fiscal concerns within a seven-county region. Although the region is made up of 186 cities, villages and townships; 48 school districts; and 60 other taxing authorities, the region is viewed as one large, interconnected economy. The law requires all communities in the seven-county area to contribute 40 percent of the future growth in their commercial-industrial tax base to a regional pool. The idea was to reduce the disparities between the "haves" and the "have-nots"—communities with a lot of commercial-industrial property and those lacking in such development.

The objectives of the Program as stated in the original Act were as follows:

- To provide a way for local governments to share in the resources generated by the growth of the area, without removing any resources that local governments already have
- To increase the likelihood of orderly urban development by reducing the impact of fiscal considerations on the location of business and residential growth and of highways, transit facilities, and airports
- To establish incentives for all parts of the area to work for the growth of the area as a whole
- To provide a way whereby the area's resources can be made available within and through the existing system of local governments and local decision making
- To help communities in different stages of development by making resources increasingly available to communities at those early stages of development and redevelopment when financial pressures on them are the greatest
- To encourage protection of the environment by reducing the impact of fiscal considerations so that flood plains can be protected and land for parks and open space can be preserved

These objectives have been commonly reduced to two main goals:[23]

- Promoting more orderly regional development
- Improving equity in the distribution of fiscal resources

[23] Steve Hinze and Karen Baker, House Research Department, *Minnesota's Fiscal Disparities Programs,* January 2005.

The Minnesota program is now being evaluated in terms of the costs incurred by localities that receive the commercial and industrial development. That is, what is the net fiscal impact of those developments. Potentially, the formula could be modified to consider costs as well as revenues.

This type of approach in the Fort Bragg region may make sense when used in conjunction with a Transfer of Development Rights program (see below). In this type of program, County corporate limits would not be a limiting factor in redirecting growth and as part of the approach, the participating jurisdictions would develop a formula to share in revenues (and costs)—such as from retail development that generates net surpluses to counties. A detailed formula would have to be developed.

PLANNING AND REGULATORY TOOLS

A number of tools to mitigate incompatible land use are identified in the *Practical Guide to Compatible Civilian Development Near Military Installations* produced by the U.S. Department of Defense Office of Economic Adjustment. In addition, the Working Lands Plans being developed for the Fort Bragg counties also identify a number of strategies that seek to preserve farmland. We have highlighted several that are applicable to the Fort Bragg region:

Military Installation Overlay Zoning District

A Military Installation Overlay District is a zoning ordinance that provides more stringent land use regulations and requirements. It regulates land uses in a fixed area surrounding the installation, particularly within noise zones and in the case of runways, in the Clear Zone and Accident Potential Zones. The purpose is to protect health, safety, and welfare of the community while protecting the utility and capacity of the base. This would be implemented by the local government.

Transfer of Development Rights (TDR)

A TDR program identifies areas in a jurisdiction desirable for urban/suburban development and areas to preserve. A TDR program would direct development to those desirable areas by allowing development rights to be transferred from one area to another. The objective is to preserve areas (in this case agricultural lands adjacent to Fort Bragg that are now compatible) and redirect development to other areas while still responding to market demand, particularly due to growth at Fort Bragg due to BRAC. A TDR program identifies "sending" areas (agricultural lands) and "receiving" areas (urban/suburban locations) with adequate infrastructure. TDR sending and receiving areas do not need to be contiguous nor under the same ownership. In the case of Fort Bragg, one could argue that if the legal aspects can be worked out, perhaps sending and receiving areas do not have to be within the same jurisdiction. Further, a TDR program can work in conjunction with other efforts such as Voluntary Agricultural Districts (discussed below) or a revenue sharing program as discussed above.

Conservation Easements

An easement is a deed restriction on property that limits its use to certain purposes. A conservation easement allows for property to be preserved or protected from development. In many military communities, easements have been used widely to buffer or protect bases from incompatible land use. Anecdotal evidence has found that buffering efforts have maintained and even increased property values. The Rand Corporation's evaluation of the Department of Defense Readiness and Environmental Protection Initiative (REPI) program highlights the impacts around the urbanizing area of Fort Carson, Colorado, where "local land prices went up near Walker Ranch after the first conservation easement was announced on this property."[24] The Rand study noted that buffering activities around other installations had other positive economic effects beyond preserving each community's economic engine, for example[25]:

- Fort Carson, Colorado: "Landowner can keep land and get economic benefit from it beyond ranching; provides scenic open space."
- Marine Corps Air Station (MCAS) Beaufort, South Carolina: "Helps maintain property values; helps preserve agricultural lands and family farms; helps provide parkland and recreational access and facilities, such as for fishing and hiking; landowner can keep land and get economic benefit from it beyond farming."

The authors also admit that more research is needed on the land value question. There are a whole host of factors that contribute to property value, which would complicate any analysis of the effect of buffering or restrictions on land value.

Encourage Enrollment in the Present-Use Valuation

The Present-Use Value program is authorized by North Carolina statute that allows agricultural land to be taxed as its use as a farm or for other agricultural purposes as opposed to its "highest and best use" as more intense development. Enrolling land in the program provides a financial incentive for land owners to retain land in agricultural use.

Voluntary Agricultural District (VAD) Program and Enhanced VAD

Voluntary Agricultural Districts are authorized by the State and must to be adopted by local ordinance. VADs seek to maintain agricultural land uses by offering protection from nuisance lawsuits and other negative impacts. Development is prohibited on the land for ten years, the length of the agreement.

[24] Lachman, Beth E.; Anny Wong, and Susan A. Resetar, *The Thin Green Line: An Assessment of DoD's Readiness and Environmental Protection Initiative to Buffer Installation Encroachment,* Rand Corporation, 2007, p. 63.
[25] The below points are from Lachman, et al, pp. 129-199.

However, land owners can revoke the agreement through written notice. The Enhanced VAD program adds additional protections in return for maintaining the land in agricultural use in perpetuity.

Summary

Several fiscal-related benefits can accrue from preservation of agricultural land and/or restricting development, in addition to preventing incompatible land uses:

- Preservation through a conservation easement provides the potential to use open space for recreational and/or passive uses. This enhances a jurisdiction's level of service without direct cost to the government of (1) buying land outright and (2) maintaining the property.
- By limiting development, government does not have to provide increased public services in that area.
- Viewsheds are maintained for citizens without the government having to purchase the land.
- It is likely that development in the restricted areas is more costly than development elsewhere in the jurisdiction—both for the private and public sectors. Development costs may be higher for noise mitigation, safety needs, insurance, and disclosure requirements. These requirements are likely to negatively affect market values.
- With agricultural easements, the property owner is allowed to continue to get economic benefit from the land and the locality can continue to collect taxes.

APPENDIX A: REVENUE AND COST RESULTS

Appendix A provides further detail on revenue and expenditure outputs for each of the prototype land uses within the study jurisdictions. Appendix B is issued under separate cover and provides further detail on demographic factors, projection methodologies, and prototype factors (revenues and costs per person, student, job, etc.). Each jurisdiction is shown in turn below with detail on revenues, taxes, and operating and capital costs per prototype land use.

HARNETT COUNTY

Figure 37. HARNETT COUNTY General Fund Revenues by Prototype: Per Residential Unit and Per 1,000 Square Feet of Nonresidential Floor Area

Revenue Category		FY 2011 Amount	Percent of Total	Residential: Per Unit					Nonresidential: Per 1,000 Square Feet		
				SFD High Value	SFD Average Value	SFD Low Value	Townhouse Unit	Multifamily Unit	Retail	Office	Industrial
Taxes	Ad Valorem - Current Tax	$49,518,848	47.89%	$2,180.08	$1,381.13	$944.68	$1,090.40	$726.45	$543.75	$616.25	$181.25
	Ad Valorem - Personal Prop Residents	*$5,500,000*		$125.99	$125.99	$125.99	$89.99	$89.99	$0.00	$0.00	$0.00
	Ad Valorem - Personal Prop Businesses	*$2,300,000*		$0.00	$0.00	$0.00	$0.00	$0.00	$261.68	$409.54	$187.73
	Ad Valorem - Prior Years Tax	$1,130,000	1.09%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	Collected/Other Counties	$0	0.00%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	Tax Penalties & Interest	$485,000	0.47%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	Charged Off Taxes	$0	0.00%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	Motor Vehicles	$25,000	0.02%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Other Taxes and Licenses	NC Sales Tax	$0	0.00%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	NC Sales Tax - Article 39	$6,274,649	6.07%	$0.00	$0.00	$0.00	$0.00	$0.00	$2,000.00	$0.00	$0.00
	NC Sales Tax - Article 40 (General Fund)	$3,761,313	3.64%	$86.16	$86.16	$86.16	$61.55	$61.55	$0.00	$0.00	$0.00
	NC Sales Tax - Article 40 (Education)	$1,611,992	1.56%	$36.93	$36.93	$36.93	$26.38	$26.38	$0.00	$0.00	$0.00
	NC Sales Tax - Article 42 (General Fund)	$1,035,238	1.00%	$0.00	$0.00	$0.00	$0.00	$0.00	$1,000.00	$0.00	$0.00
	NC Sales Tax - Article 42 (Education)	$3,223,989	3.12%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	NC Sales Tax - Article 44	$0	0.00%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	NC Sales Tax - Article 39 City Hold Harmless	($1,671,130)	-1.62%	-$38.28	-$38.28	-$38.28	-$27.34	-$27.34	$0.00	$0.00	$0.00
	NC Sales Tax - Article 39 School Hold Harml	($896,557)	-0.87%	-$20.54	-$20.54	-$20.54	-$14.67	-$14.67	$0.00	$0.00	$0.00
	Excise Stamp - Real Property	$500,000	0.48%	$30.07	$19.05	$13.03	$15.04	$10.02	$0.15	$0.34	$0.10
	Cable TV Franchise	$150,000	0.15%	$3.44	$3.44	$3.44	$2.45	$2.45	$0.00	$0.00	$0.00
	Occupancy Tax	$350,000	0.34%	$8.02	$8.02	$8.02	$5.73	$5.73	$0.00	$0.00	$0.00
UNRESTRICTED INTERGOVT	Unrestricted Intergovernmental Revenue	$31,500	0.03%	$0.72	$0.72	$0.72	$0.52	$0.52	$0.00	$0.00	$0.00
RESTRICTED INTERGOVT	Federal and State Grants	$18,463,964	17.86%	$422.97	$422.97	$422.97	$302.12	$302.12	$0.00	$0.00	$0.00
	Court Facilities Fees	$1,069,000	1.03%	$24.49	$24.49	$24.49	$17.49	$17.49	$0.00	$0.00	$0.00
Permits and Fees	Filing and registration fees	$42,500	0.04%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	ANIMAL CONTROL FEES	$30,000	0.03%	$0.69	$0.69	$0.69	$0.49	$0.49	$0.00	$0.00	$0.00
	Register of Deeds	$600,000	0.58%	$13.74	$13.74	$13.74	$9.82	$9.82	$0.00	$0.00	$0.00
	Inspection Fees	$1,421,437	1.37%	$29.62	$29.62	$29.62	$21.16	$21.16	$14.61	$22.87	$10.48
	Planning Fees	$132,994	0.13%	$2.77	$2.77	$2.77	$1.98	$1.98	$1.37	$2.14	$0.98
	Other Fees	$231,700	0.22%	$4.83	$4.83	$4.83	$3.45	$3.45	$2.38	$3.73	$1.71
Sales and Service	Rents and Concessions	$442,480	0.43%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	Court cost and fees	$175,000	0.17%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	Jail fees	$30,000	0.03%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	Ambulance fees	$3,602,431	3.48%	$82.52	$82.52	$82.52	$58.95	$58.95	$0.00	$0.00	$0.00
	Library fees	$26,677	0.03%	$0.61	$0.61	$0.61	$0.44	$0.44	$0.00	$0.00	$0.00
	Health fees	$3,696,022	3.57%	$84.67	$84.67	$84.67	$60.48	$60.48	$0.00	$0.00	$0.00
Investment Earnings	Interest on Investments	$35,413	0.03%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Other	Sale of assets	$3,800	0.00%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	Miscellaneous revenues	$1,324,826	1.28%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	donations	$13,906	0.01%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	Interfund Transfer - Capital Project (Boone	$683,081	0.66%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	Public Utilities	$400,000	0.39%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Fund Balance Appropriated	Fund Balance	$5,437,096	5.26%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	TOTAL	**$103,392,169**	**100.00%**	**$3,079.49**	**$2,269.52**	**$1,827.05**	**$1,726.40**	**$1,357.43**	**$3,823.95**	**$1,054.86**	**$382.25**

Highlighted items above are derived on a case-study marginal basis depending on the revenue formula and land use characteristics. Figure 38 provides further detail on General Fund property tax revenue per prototype in Harnett County.

Figure 38. HARNETT COUNTY General Fund Property Tax by Prototype

RESIDENTIAL PROTOTYPES

	Land Use Prototype	*Assessed Value Per Unit (rounded)*	*FY 2011 Tax Rate (per $100)*	*Ad Valorem Taxes per Unit*
	Single Family Detached (SFD)			
1	**SFD High Value**	$300,700	0.725	$2,180
2	**SFD Medium Value**	$190,500	0.725	$1,381
3	**SFD Low Value**	$130,300	0.725	$945
4	**Townhouse**	$150,400	0.725	$1,090
5	**Multifamily**	$100,200	0.725	$726

NONRESIDENTIAL PROTOTYPES

	Land Use Prototype	*Assessed Value Per 1,000 sf (rounded)*	*FY 2011 Tax Rate (per $100)*	*Ad Valorem Taxes per 1,000 sf*
1	**Commercial/Retail**	$75,000	0.725	$544
2	**Offices (Prof. and Bus. Srvcs)**	$85,000	0.725	$616
3	**Industrial**	$25,000	0.725	$181

Figure 39 provides further information on point of sale sales tax revenue for Retail land uses in Harnett County.

Figure 39. HARNETT COUNTY General Fund Point of Sale Sales Tax for Retail Land Use

Land Use Prototype	*Prototype Size (SF)*	*Estimated Sales Per SF*	*Estimated Sales Per Prototype*	*Estimated Sales Per 1,000 SF*	*Sales Tax Rate*	*Estd Sales Tax Per 1,000 SF*
Article 39 One Cent						
Commercial/Retail	100,000	$200	$20,000,000	$200,000	1%	$2,000
Article 42 Half Cent						
Commercial/Retail	100,000	$200	$20,000,000	$200,000	0.5%	$1,000

General Fund Expenditures

Figure 40. HARNETT COUNTY General Fund Expenditures by Prototype: Per Residential Unit and Per 1,000 Square Feet of Nonresidential Floor Area

	Expenditure Category	FY 2011 Amount	Percent of Total	Residential: Per Unit					Nonresidential: Per 1,000 Square Feet		
				SFD High Value	SFD Average Value	SFD Low Value	Townhouse Unit	Multifamily Unit	Retail	Office	Industrial
4100	Governing Body	$238,000	0.23%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
4150	Administration	$210,934	0.20%	$4.40	$4.40	$4.40	$3.14	$3.14	$2.17	$3.39	$1.56
4155	Legal Services	$143,114	0.14%	$2.98	$2.98	$2.98	$2.13	$2.13	$1.47	$2.30	$1.06
4250	Human Resources	$285,667	0.28%	$5.95	$5.95	$5.95	$4.25	$4.25	$2.94	$4.60	$2.11
4300	Board of Elections	$437,068	0.42%	$10.01	$10.01	$10.01	$7.15	$7.15	$0.00	$0.00	$0.00
4400	Finance	$706,189	0.68%	$14.72	$14.72	$14.72	$10.51	$10.51	$7.26	$11.36	$5.21
4401	Retirees	$0	0.00%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
4402	Clerk of Court - Facilities Fees	$72,235	0.07%	$1.65	$1.65	$1.65	$1.18	$1.18	$0.00	$0.00	$0.00
4500	Tax	$1,621,811	1.57%	$33.80	$33.80	$33.80	$24.14	$24.14	$16.67	$26.09	$11.96
4600	General Services	$482,891	0.47%	$10.06	$10.06	$10.06	$7.19	$7.19	$4.96	$7.77	$3.56
4650	Transportation	$1,300,036	1.26%	$29.78	$29.78	$29.78	$21.27	$21.27	$0.00	$0.00	$0.00
4700	Public Buildings	$2,988,227	2.89%	$62.27	$62.27	$62.27	$44.48	$44.48	$30.72	$48.08	$22.04
4800	Register of Deeds	$644,359	0.62%	$14.76	$14.76	$14.76	$10.54	$10.54	$0.00	$0.00	$0.00
4900	Information Technology	$1,263,442	1.22%	$26.33	$26.33	$26.33	$18.81	$18.81	$12.99	$20.33	$9.32
4910	GIS	$466,348	0.45%	$9.72	$9.72	$9.72	$6.94	$6.94	$4.79	$7.50	$3.44
5100	Sheriff	$8,160,914	7.89%	$170.06	$170.06	$170.06	$121.47	$121.47	$209.70	$73.22	$17.87
5101	Sheriff - Campbell Deputies	$448,426	0.43%	$9.34	$9.34	$9.34	$6.67	$6.67	$4.61	$7.21	$3.31
5102	Sheriff - Harnett Criminal Justice Partnership Program	$104,653	0.10%	$2.18	$2.18	$2.18	$1.56	$1.56	$1.08	$1.68	$0.77
5103	Sheriff - Sheriff's Department Grants	$0	0.00%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
5104	Sheriff - Child Support Enforcement	$70,386	0.07%	$1.61	$1.61	$1.61	$1.15	$1.15	$0.00	$0.00	$0.00
5110	Sheriff - Communications	$1,283,736	1.24%	$26.75	$26.75	$26.75	$19.11	$19.11	$32.99	$11.52	$2.81
5120	Sheriff - Jail	$4,186,875	4.05%	$95.91	$95.91	$95.91	$68.51	$68.51	$0.00	$0.00	$0.00
5300	Emergency Services	$737,966	0.71%	$16.91	$16.91	$16.91	$12.08	$12.08	$0.00	$0.00	$0.00
5302	Emergency Services Grant	$0	0.00%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
5400	Emergency Medical Service	$6,054,082	5.86%	$126.15	$126.15	$126.15	$90.11	$90.11	$155.56	$54.32	$13.26
5401	Emergency Medical Service Transport	$1,390,043	1.34%	$28.97	$28.97	$28.97	$20.69	$20.69	$35.72	$12.47	$3.04
5500	Animal Control	$457,279	0.44%	$9.53	$9.53	$9.53	$6.81	$6.81	$4.70	$7.36	$3.37
5700	Medical Examiner	$40,000	0.04%	$0.92	$0.92	$0.92	$0.65	$0.65	$0.00	$0.00	$0.00
5899	Public Safety Appropriations	$114,303	0.11%	$2.38	$2.38	$2.38	$1.70	$1.70	$2.94	$1.03	$0.25
5900	Emergency Telephone System	$280,967	0.27%	$5.85	$5.85	$5.85	$4.18	$4.18	$7.22	$2.52	$0.62
5901	Emergency Telephone System Radio System	$241,272	0.23%	$5.03	$5.03	$5.03	$3.59	$3.59	$6.20	$2.16	$0.53
6500	Harnett Regional Jetport	$150,288	0.15%	$3.13	$3.13	$3.13	$2.24	$2.24	$1.55	$2.42	$1.11
6700	Soil & Water	$172,810	0.17%	$3.60	$3.60	$3.60	$2.57	$2.57	$1.78	$2.78	$1.27
6999	Environmental Protection Appropriations	$4,000	0.00%	$0.08	$0.08	$0.08	$0.06	$0.06	$0.04	$0.06	$0.03
7050	Forestry Program	$107,721	0.10%	$2.24	$2.24	$2.24	$1.60	$1.60	$1.11	$1.73	$0.79
7099	Economic & Physical Development Appropriations	$1,380,000	1.33%	$31.61	$31.61	$31.61	$22.58	$22.58	$0.00	$0.00	$0.00
7100	Industrial Development	$1,738,729	1.68%	$36.23	$36.23	$36.23	$25.88	$25.88	$17.88	$27.97	$12.82
7200	Planning & Inspections	$1,532,400	1.48%	$31.93	$31.93	$31.93	$22.81	$22.81	$15.75	$24.66	$11.30
7300	Cooperative Extension	$438,298	0.42%	$10.04	$10.04	$10.04	$7.17	$7.17	$0.00	$0.00	$0.00
7301	Cooperative Extension - Child Care Resource & Referral	$12,500	0.01%	$0.29	$0.29	$0.29	$0.20	$0.20	$0.00	$0.00	$0.00
7306	After School Programs - Child Care Resource & Referral -	$2,000	0.00%	$0.05	$0.05	$0.05	$0.03	$0.03	$0.00	$0.00	$0.00
7309	After School Programs - Support Our Students	$0	0.00%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

	Expenditure Category	FY 2011 Amount	Percent of Total	Residential: Per Unit SFD High Value	SFD Average Value	SFD Low Value	Townhouse Unit	Multifamily Unit	Nonresidential: Per 1,000 Square Feet Retail	Office	Industrial
7310	Cooperative Extension - Parents as Teachers	$65,824	0.06%	$1.51	$1.51	$1.51	$1.08	$1.08	$0.00	$0.00	$0.00
7313	Cooperative Extension - Teens as Parents	$31,875	0.03%	$0.73	$0.73	$0.73	$0.52	$0.52	$0.00	$0.00	$0.00
7319	Cooperative Extension - Adolescent Parenting	$15,000	0.01%	$0.34	$0.34	$0.34	$0.25	$0.25	$0.00	$0.00	$0.00
7321	Cooperative Extension - Raising A Reader	$11,951	0.01%	$0.27	$0.27	$0.27	$0.20	$0.20	$0.00	$0.00	$0.00
7322	Cooperative Extension - Quality Enhancement	$64,084	0.06%	$1.47	$1.47	$1.47	$1.05	$1.05	$0.00	$0.00	$0.00
7404	Job Link -Workforce Investment Act-One Stop	$0	0.00%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
7500	Aging	$176,029	0.17%	$4.03	$4.03	$4.03	$2.88	$2.88	$0.00	$0.00	$0.00
7501	Family Caregiver Support	$64,796	0.06%	$1.48	$1.48	$1.48	$1.06	$1.06	$0.00	$0.00	$0.00
7510	Aging - Retired Seniors Volunteer Program	$101,477	0.10%	$2.32	$2.32	$2.32	$1.66	$1.66	$0.00	$0.00	$0.00
7550	Aging - Community Alternatives Program	$346,036	0.33%	$7.93	$7.93	$7.93	$5.66	$5.66	$0.00	$0.00	$0.00
7551	Aging - Volunteer Center	$36,007	0.03%	$0.82	$0.82	$0.82	$0.59	$0.59	$0.00	$0.00	$0.00
7552	Aging - Nutrition For Elderly	$410,195	0.40%	$9.40	$9.40	$9.40	$6.71	$6.71	$0.00	$0.00	$0.00
7600	Health	$7,162,107	6.93%	$164.07	$164.07	$164.07	$117.19	$117.19	$0.00	$0.00	$0.00
7690	Mental Health	$205,679	0.20%	$4.71	$4.71	$4.71	$3.37	$3.37	$0.00	$0.00	$0.00
7700	Social Services	$9,634,711	9.32%	$220.71	$220.71	$220.71	$157.65	$157.65	$0.00	$0.00	$0.00
7710	Social Services - Public Assistance	$8,267,869	8.00%	$189.40	$189.40	$189.40	$135.28	$135.28	$0.00	$0.00	$0.00
7800	Veterans Services	$169,183	0.16%	$3.88	$3.88	$3.88	$2.77	$2.77	$0.00	$0.00	$0.00
7930	Youth Services - Restitution	$111,535	0.11%	$2.56	$2.56	$2.56	$1.83	$1.83	$0.00	$0.00	$0.00
7999	Human Services Appropriations	$172,000	0.17%	$3.94	$3.94	$3.94	$2.81	$2.81	$0.00	$0.00	$0.00
8100	Library	$1,083,892	1.05%	$24.83	$24.83	$24.83	$17.74	$17.74	$0.00	$0.00	$0.00
8199	Cultural & Recreational Appropriations	$232,000	0.22%	$5.31	$5.31	$5.31	$3.80	$3.80	$0.00	$0.00	$0.00
8200	Parks & Recreation	$413,665	0.40%	$9.48	$9.48	$9.48	$6.77	$6.77	$0.00	$0.00	$0.00
8600	Education-Current Expense	$20,288,004	19.62%	$412.55	$412.55	$412.55	$316.40	$316.40	$0.00	$0.00	$0.00
	Education-Capital Outlay	$965,181	0.93%	$19.63	$19.63	$19.63	$15.05	$15.05	$0.00	$0.00	$0.00
	Central Carolina Comm Coll	$725,726	0.70%	$16.62	$16.62	$16.62	$11.87	$11.87	$0.00	$0.00	$0.00
8701	Interfund Transfers	$16,667	0.02%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
8702	Debt Service-Schools	$9,381,561	9.07%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	Debt Service-Other	$2,989,146	2.89%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
8703	Capital Reserve	$0	0.00%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
8800	Contingency	$280,000	0.27%	$5.83	$5.83	$5.83	$4.17	$4.17	$2.88	$4.50	$2.07
	Total General Fund Expenditures	**$103,392,169**	**100.00%**	**$1,961.05**	**$1,961.05**	**$1,961.05**	**$1,423.50**	**$1,423.50**	**$585.66**	**$369.05**	**$135.47**

Debt service expenditures are calculated separately below. We estimated annual capital expenditures for schools and other general government purposes using debt service information from the County budget and Comprehensive Annual Financial Reports.

Figure 41. HARNETT COUNTY General Fund Capital Expenditures by Prototype: Per Residential Unit and Per 1,000 Square Feet of Nonresidential Floor Area

		Residential: Per Unit SFD High Value	SFD Average Value	SFD Low Value	Townhouse Unit	Multifamily Unit	Nonresidential: Per 1,000 Square Feet Retail	Office	Industrial
Capital Cost Education (Debt Service)	$9,381,561	$190.77	$190.77	$190.77	$146.31	$146.31	$0.00	$0.00	$0.00
Capital Cost Gen Govt Facilities (Debt Service)	$2,989,146	$62.29	$62.29	$62.29	$44.49	$44.49	$76.81	$26.82	$6.55
Total Capital	**$12,370,707**	**$253.06**	**$253.06**	**$253.06**	**$190.80**	**$190.80**	**$76.81**	**$26.82**	**$6.55**

HOKE COUNTY

Figure 42. HOKE COUNTY General Fund Revenues by Prototype: Per Residential Unit and Per 1,000 Square Feet of Nonresidential Floor Area

Revenue Category		FY 2011 Amount	Percent of Total	Residential: Per Unit					Nonresidential: Per 1,000 Square Feet		
				SFD High Value	*SFD Average Value*	*SFD Low Value*	*Townhouse Unit*	*Multifamily Unit*	*Retail*	*Office*	*Industrial*
Taxes	Ad Valorem Taxes-Current and Prior Yea	$16,587,874	46.75%	$1,941.80	$1,164.80	$841.40	$711.90	$647.50	$322.00	$518.00	$161.00
	Ad Valorem - Personal Prop Residents	$1,900,000		$124.04	$124.04	$124.04	$109.19	$109.19	$0.00	$0.00	$0.00
	Ad Valorem - Personal Prop Businesses	$800,000		$0.00	$0.00	$0.00	$0.00	$0.00	$245.25	$383.81	$175.93
Sales Tax	NC Sales Tax-Total	$3,811,410									
	NC Sales Tax - Article 39	$1,325,760	3.74%	$0.00	$0.00	$0.00	$0.00	$0.00	$2,000.00	$0.00	$0.00
	NC Sales Tax - Article 40	$1,871,094	5.27%	$122.15	$122.15	$122.15	$107.53	$107.53	$0.00	$0.00	$0.00
	NC Sales Tax - Article 42	$817,704	2.30%	$0.00	$0.00	$0.00	$0.00	$0.00	$1,000.00	$0.00	$0.00
	NC Sales Tax - Article 44	$3,317	0.01%	$0.22	$0.22	$0.22	$0.19	$0.19	$0.00	$0.00	$0.00
	NC Sales Tax - Hold Harmless	($206,465)	-0.58%	-$13.48	-$13.48	-$13.48	-$11.86	-$11.86	$0.00	$0.00	$0.00
Other Revenues	Licenses and Franchise Fees	$272,500	0.77%	$16.12	$16.12	$16.12	$14.19	$14.19	$7.83	$12.26	$5.62
	Other Services	$885,820	2.50%	$52.41	$52.41	$52.41	$46.13	$46.13	$25.46	$39.84	$18.26
	Library	$9,050	0.03%	$0.59	$0.59	$0.59	$0.52	$0.52	$0.00	$0.00	$0.00
	State and Federal Grants	$7,635,528	21.52%	$498.47	$498.47	$498.47	$438.79	$438.79	$0.00	$0.00	$0.00
	Court Facility Fees	$89,000	0.25%	$5.81	$5.81	$5.81	$5.11	$5.11	$0.00	$0.00	$0.00
	Building Permits and Inspection Fees	$1,480,000	4.17%	$87.56	$87.56	$87.56	$77.08	$77.08	$42.53	$66.56	$30.51
	Register of Deeds Fees	$452,000	1.27%	$29.51	$29.51	$29.51	$25.97	$25.97	$0.00	$0.00	$0.00
	Sheriff/Jail Fees	$1,290,564	3.64%	$84.25	$84.25	$84.25	$74.16	$74.16	$0.00	$0.00	$0.00
	Recreational and Concession Fees	$135,700	0.38%	$8.86	$8.86	$8.86	$7.80	$7.80	$0.00	$0.00	$0.00
	Transfers In	$2,599,376	7.33%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	Investment Earnings	$230,295	0.65%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	TOTAL	**$35,479,117**	**100.00%**	**$2,958.32**	**$2,181.32**	**$1,857.92**	**$1,606.70**	**$1,542.30**	**$3,643.07**	**$1,020.47**	**$391.32**

For further detail, the following figure shows General Fund property tax revenue per prototype in Hoke County.

Figure 43. HOKE COUNTY General Fund Property Tax by Prototype

RESIDENTIAL PROTOTYPES

	Land Use Prototype	*Assessed Value Per Unit (rounded) [2]*	*FY 2011 Tax Rate (per $100)*	*Ad Valorem Taxes*
	Single Family Detached (SFD)			
1	**SFD High Value**	$277,400	$0.70	$1,942
2	**SFD Medium Value**	$166,400	$0.70	$1,165
3	**SFD Low Value**	$120,200	$0.70	$841
4	**Townhouse**	$101,700	$0.70	$712
5	**Multifamily**	$92,500	$0.70	$648

NONRESIDENTIAL PROTOTYPES

	Land Use Prototype [1]	*Assessed Value Per 1,000 sf (rounded) [2]*	*FY 2011 Tax Rate (per $100)*	*Ad Valorem Taxes per 1,000 sf*
1	**Commercial/Retail**	$46,000	$0.70	$322
2	**Offices (Prof. and Bus. Srvcs)**	$74,000	$0.70	$518
3	**Industrial**	$23,000	$0.70	$161

Figure 44 provides further information on point of sale sales tax revenue for Retail land uses in Hoke County.

Figure 44. HOKE COUNTY General Fund Point of Sale Sales Tax for Retail Land Use

Land Use Prototype	*Prototype Size (SF)*	*Estimated Sales Per SF*	*Estimated Sales Per Prototype*	*Estimated Sales Per 1,000 SF*	*Sales Tax Rate*	*Estd Sales Tax Per 1,000 SF*
Article 39 One Cent						
Commercial/Retail	100,000	$200	$20,000,000	$200,000	1%	$2,000
Article 42 Half Cent						
Commercial/Retail	100,000	$200	$20,000,000	$200,000	0.5%	$1,000

General Fund Expenditures

Figure 45. HOKE COUNTY General Fund Expenditures by Prototype: Per Residential Unit and Per 1,000 Square Feet of Nonresidential Floor Area

			Residential: Per Unit					Nonresidential: Per 1,000 Square Feet		
Expenditure Category	FY 2011 Amount	Percent of Total	SFD High Value	SFD Average Value	SFD Low Value	Townhouse Unit	Multifamily Unit	Retail	Office	Industrial
General Government	$4,112,918	11.59%	$243.34	$243.34	$243.34	$214.20	$214.20	$118.19	$184.97	$84.79
Public Safety	$8,448,841	23.81%	$499.87	$499.87	$499.87	$440.01	$440.01	$893.10	$311.84	$76.12
Environmental and Physical Develop	$454,538	1.28%	$26.89	$26.89	$26.89	$23.67	$23.67	$13.06	$20.44	$9.37
Human Services	$11,417,331	32.18%	$745.36	$745.36	$745.36	$656.11	$656.11	$0.00	$0.00	$0.00
Cultural and Recreational	$926,662	2.61%	$60.50	$60.50	$60.50	$53.25	$53.25	$0.00	$0.00	$0.00
Education-Current Expense	$4,923,247	13.88%	$261.44	$261.44	$261.44	$164.75	$164.75	$0.00	$0.00	$0.00
Education-Capital Outlay	$1,021,314	2.88%	$54.24	$54.24	$54.24	$34.18	$34.18	$0.00	$0.00	$0.00
Non Departmental	$735,954	2.07%	$43.54	$43.54	$43.54	$38.33	$38.33	$21.15	$33.10	$15.17
Special Appropriations	$3,438,393	9.69%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Total General Fund Expenditures	**$35,479,198**	**100.00%**	**$1,935.17**	**$1,935.17**	**$1,935.17**	**$1,624.50**	**$1,624.50**	**$1,045.50**	**$550.36**	**$185.45**

"Special Appropriations" is primarily debt service. We estimated annual capital expenditures for schools and other general government purposes using debt service information data from the County budget and Comprehensive Annual Financial Reports. Results are provided below.

Figure 46. HOKE COUNTY General Fund Capital Expenditures by Prototype: Per Residential Unit and Per 1,000 Square Feet of Nonresidential Floor Area

		Residential: Per Unit					Nonresidential: Per 1,000 Square Feet		
		SFD High Value	SFD Average Value	SFD Low Value	Townhouse Unit	Multifamily Unit	Retail	Office	Industrial
Capital Cost Education (Debt Service)	$2,898,179	$153.90	$153.90	$153.90	$96.98	$96.98	$0.00	$0.00	$0.00
Capital Cost Gen Govt Facilities (Debt S	$511,443	$30.26	$30.26	$30.26	$26.64	$26.64	$14.70	$23.00	$10.54
	$3,409,623	**$184.16**	**$184.16**	**$184.16**	**$123.62**	**$123.62**	**$14.70**	**$23.00**	**$10.54**

MOORE COUNTY

Figure 47. MOORE COUNTY General Fund Revenues by Prototype: Per Residential Unit and Per 1,000 Square Feet of Nonresidential Floor Area

Revenue Category		FY 2011 Amount	Percent of Total	Residential: Per Unit					Nonresidential: Per 1,000 Square Feet		
				SFD High Value	SFD Average Value	SFD Low Value	Townhouse Unit	Multifamily Unit	Retail	Office	Industrial
Property taxes	Property Tax	$50,423,000	59.31%	$2,244.09	$1,346.64	$807.71	$1,122.05	$673.32	$516.15	$674.25	$134.85
	Discounts	($570,740)	-0.67%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	Prior Year Tax	$240,000	0.28%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	Vehicle Tax	$3,000,000	3.53%	$87.26	$87.26	$87.26	$64.51	$64.51	$0.00	$0.00	$0.00
	Personal Property-Biz	$1,000,000		$0.00	$0.00	$0.00	$0.00	$0.00	$82.14	$128.54	$58.92
	Tax Penalties/Interest	$237,000	0.28%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	Privilege License	$12,000	0.01%	$0.30	$0.30	$0.30	$0.22	$0.22	$0.13	$0.21	$0.10
	Rental Vehicle Tax	$42,000	0.05%	$1.06	$1.06	$1.06	$0.78	$0.78	$0.47	$0.73	$0.33
Sales Tax	NC Sales Tax - Article 39	$6,200,000	7.29%	$0.00	$0.00	$0.00	$0.00	$0.00	$2,000.00	$0.00	$0.00
	NC Sales Tax - Article 40 (General Fun	$2,400,000	2.82%	$69.81	$69.81	$69.81	$51.61	$51.61	$0.00	$0.00	$0.00
	NC Sales Tax - Article 40 (Education)	$1,000,000	1.18%	$29.09	$29.09	$29.09	$21.50	$21.50	$0.00	$0.00	$0.00
	NC Sales Tax - Article 42 (General Fun	$1,400,000	1.65%	$0.00	$0.00	$0.00	$0.00	$0.00	$1,000.00	$0.00	$0.00
	NC Sales Tax - Article 42 (Education)	$2,000,000	2.35%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	NC Sales Tax - Article 44	$0	0.00%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	NC Sales Tax - Hold Harmless	$0	0.00%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Other Taxes	ABC Taxes	$493,000	0.58%	$14.34	$14.34	$14.34	$10.60	$10.60	$0.00	$0.00	$0.00
	Video Taxes	$25,000	0.03%	$0.73	$0.73	$0.73	$0.54	$0.54	$0.00	$0.00	$0.00
General Revenues	Interest Earnings	$130,000	0.15%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	Departmental Revenues and Fees	$3,886,759	4.57%	$97.78	$97.78	$97.78	$72.29	$72.29	$43.14	$67.51	$30.95
Human Services	Social Services	$6,922,343	8.14%	$201.35	$201.35	$201.35	$148.86	$148.86	$0.00	$0.00	$0.00
	Health	$1,626,195	1.91%	$47.30	$47.30	$47.30	$34.97	$34.97	$0.00	$0.00	$0.00
	Child Support Enforcement	$645,669	0.76%	$18.78	$18.78	$18.78	$13.88	$13.88	$0.00	$0.00	$0.00
	Other Grants	$874,662	1.03%	$25.44	$25.44	$25.44	$18.81	$18.81	$0.00	$0.00	$0.00
	Aging	$891,939	1.05%	$25.94	$25.94	$25.94	$19.18	$19.18	$0.00	$0.00	$0.00
Fund Balance	Appropriated Fund Balance	$487,000	0.57%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Transfers In	Transfers In	$2,646,595	3.11%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	TOTAL	**$85,012,422**	**100.00%**	**$2,863.26**	**$1,965.81**	**$1,426.87**	**$1,579.79**	**$1,131.07**	**$3,642.03**	**$871.25**	**$225.15**

For further detail, Figure 48 shows General Fund property tax revenue per prototype in Moore County.

Figure 48. MOORE COUNTY General Fund Property Tax by Prototype

RESIDENTIAL PROTOTYPES

	Land Use Prototype	*Assessed Value Per Unit (rounded) [2]*	*FY 2011 Tax Rate (per $100)*	*Ad Valorem Taxes*
	Single Family Detached (SFD)			
1	**SFD High Value**	$482,600	$0.465	$2,244
2	**SFD Medium Value**	$289,600	$0.465	$1,347
3	**SFD Low Value**	$173,700	$0.465	$808
4	**Townhouse**	$241,300	$0.465	$1,122
5	**Multifamily**	$144,800	$0.465	$673

NONRESIDENTIAL PROTOTYPES

	Land Use Prototype [1]	*Assessed Value Per 1,000 sf (rounded) [2]*	*FY 2011 Tax Rate (per $100)*	*Ad Valorem Taxes per 1,000 sf*
1	**Commercial/Retail**	$111,000	$0.465	$516
2	**Offices (Prof. and Bus. Srvcs)**	$145,000	$0.465	$674
3	**Industrial**	$29,000	$0.465	$135

Figure 49 provides further information on point of sale sales tax revenue for Retail land uses in Moore County.

Figure 49. MOORE COUNTY General Fund Point of Sale Sales Tax for Retail Land Use

Land Use Prototype	*Prototype Size (SF)*	*Estimated Sales Per SF*	*Estimated Sales Per Prototype*	*Estimated Sales Per 1,000 SF*	*Sales Tax Rate*	*Estd Sales Tax Per 1,000 SF*
Article 39 One Cent						
Commercial/Retail	100,000	$200	$20,000,000	$200,000	1%	$2,000
Article 42 Half Cent						
Commercial/Retail	100,000	$200	$20,000,000	$200,000	0.5%	$1,000

General Fund Expenditures

Figure 50. MOORE COUNTY General Fund Expenditures by Prototype: Per Residential Unit and Per 1,000 Square Feet of Nonresidential Floor Area

Expenditure Category		FY 2011 Amount	Percent of Total	Residential: Per Unit					Nonresidential: Per 1,000 Square Feet		
				SFD High Value	*SFD Average Value*	*SFD Low Value*	*Townhouse Unit*	*Multifamily Unit*	*Retail*	*Office*	*Industrial*
General Government	Governing Body	$212,172	0.25%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	Administration	$518,228	0.61%	$13.04	$13.04	$13.04	$9.64	$9.64	$5.75	$9.00	$4.13
	Human Resources	$280,684	0.33%	$7.06	$7.06	$7.06	$5.22	$5.22	$3.12	$4.88	$2.23
	Financial Services	$685,856	0.81%	$19.95	$19.95	$19.95	$14.75	$14.75	$0.00	$0.00	$0.00
	Budget Dept	$0	0.00%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	County Attorney	$599,743	0.71%	$15.09	$15.09	$15.09	$11.15	$11.15	$6.66	$10.42	$4.78
	Tax and Revaluation	$1,989,269	2.34%	$50.04	$50.04	$50.04	$37.00	$37.00	$22.08	$34.55	$15.84
	Elections	$438,847	0.52%	$12.76	$12.76	$12.76	$9.44	$9.44	$0.00	$0.00	$0.00
	Register of Deeds	$1,297,471	1.53%	$37.74	$37.74	$37.74	$27.90	$27.90	$0.00	$0.00	$0.00
Public Safety	Sheriff	$5,939,482	6.99%	$149.41	$149.41	$149.41	$110.46	$110.46	$143.29	$50.03	$12.21
	Detention Center	$2,959,951	3.48%	$86.09	$86.09	$86.09	$63.65	$63.65	$0.00	$0.00	$0.00
	Day Report Center	$100,560	0.12%	$2.53	$2.53	$2.53	$1.87	$1.87	$2.43	$0.85	$0.21
	District Atty - GCC Grant	$0	0.00%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	Public Safety and E911	$1,326,773	1.56%	$33.38	$33.38	$33.38	$24.68	$24.68	$32.01	$11.18	$2.73
Enviroment and Comm. Dev	Solid Waste	$2,259,232	2.66%	$65.71	$65.71	$65.71	$48.58	$48.58	$0.00	$0.00	$0.00
	Planning/Comm Development	$1,243,829	1.46%	$31.29	$31.29	$31.29	$23.13	$23.13	$13.81	$21.61	$9.90
	GIS	$405,467	0.48%	$10.20	$10.20	$10.20	$7.54	$7.54	$4.50	$7.04	$3.23
	Cooperative Extension	$382,433	0.45%	$11.12	$11.12	$11.12	$8.22	$8.22	$0.00	$0.00	$0.00
	Soil and Water Conservation	$263,522	0.31%	$6.63	$6.63	$6.63	$4.90	$4.90	$2.92	$4.58	$2.10
Human Services	Social Services	$11,382,587	13.39%	$331.08	$331.08	$331.08	$244.77	$244.77	$0.00	$0.00	$0.00
	Health	$4,793,773	5.64%	$139.43	$139.43	$139.43	$103.08	$103.08	$0.00	$0.00	$0.00
	Child Support Enforcement	$625,159	0.74%	$18.18	$18.18	$18.18	$13.44	$13.44	$0.00	$0.00	$0.00
	Youth Services	$135,006	0.16%	$3.93	$3.93	$3.93	$2.90	$2.90	$0.00	$0.00	$0.00
	Veteran's Service	$195,687	0.23%	$5.69	$5.69	$5.69	$4.21	$4.21	$0.00	$0.00	$0.00
	Aging/RSVP	$1,617,232	1.90%	$47.04	$47.04	$47.04	$34.78	$34.78	$0.00	$0.00	$0.00
Cultural Development	Library	$534,695	0.63%	$15.55	$15.55	$15.55	$11.50	$11.50	$0.00	$0.00	$0.00
	Recreation	$690,127	0.81%	$20.07	$20.07	$20.07	$14.84	$14.84	$0.00	$0.00	$0.00
Education	College Current Expense	$4,011,475	4.72%	$116.68	$116.68	$116.68	$86.26	$86.26	$0.00	$0.00	$0.00
	College Capital Outlay	$0	0.00%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	Education-Current Expense	$25,540,140	30.04%	$606.60	$606.60	$606.60	$372.99	$372.99	$0.00	$0.00	$0.00
	Education-Capital Outlay	$711,932	0.84%	$16.91	$16.91	$16.91	$10.40	$10.40	$0.00	$0.00	$0.00
Debt	Debt Service - Principal	$6,137,209	7.22%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	Debt Service - Interest	$6,083,227	7.16%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Grants/Court Facility	Grants/Court Facility	$1,500,161	1.76%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Transfers	Social Service Operations Fund	$0	0.00%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	Health operation fund	$0	0.00%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	Airport Enterprise Fund	$150,493	0.18%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	Capital Reserve Fund	$0	0.00%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	Total General Fund Expenditures	**$85,012,422**	**100.00%**	**$1,873.23**	**$1,873.23**	**$1,873.23**	**$1,307.30**	**$1,307.30**	**$236.56**	**$154.13**	**$57.35**

Debt service expenditures are calculated separately below. We estimated annual capital expenditures for schools and other general government purposes using debt service information from the County budget and Comprehensive Annual Financial Reports.

Figure 51. MOORE COUNTY General Fund Capital Expenditures by Prototype: Per Residential Unit and Per 1,000 Square Feet of Nonresidential Floor Area

			Residential: Per Unit					*Nonresidential: Per 1,000 Square Feet*		
	FY 2011 Amount	Percent of Total	*SFD High Value*	*SFD Average Value*	*SFD Low Value*	*Townhouse Unit*	*Multifamily Unit*	*Retail*	*Office*	*Industrial*
Capital Cost Education (Debt Service)	$4,888,174	40%	$116.10	$116.10	$116.10	$71.39	$71.39	$0.00	$0.00	$0.00
Capital Cost Gen Govt Facilities (Debt Service)	$7,332,262	60%	$202.61	$202.61	$202.61	$149.79	$149.79	$30.11	$47.13	$21.60
	$12,220,436	100%	**$318.71**	**$318.71**	**$318.71**	**$221.17**	**$221.17**	**$30.11**	**$47.13**	**$21.60**

TOWN OF ABERDEEN

Figure 52. TOWN OF ABERDEEN General Fund Revenues by Prototype: Per Residential Unit and Per 1,000 Square Feet of Nonresidential Floor Area

Revenue Category		FY 2011 Amount	Percent of Total	Residential: Per Unit					Nonresidential: Per 1,000 Square Feet		
				SFD High Value	*SFD Average Value*	*SFD Low Value*	*Townhouse Unit*	*Multifamily Unit*	*Retail*	*Office*	*Industrial*
Property taxes	Ad Valorem Taxes	$2,955,435	48.82%	$1,867.49	$912.89	$622.64	$622.64	$414.95	$498.80	$623.50	$167.70
	Ad Valorem-Personal (Reside	$291,740		$125.48	$125.48	$125.48	$75.29	$75.29	$0.00	$0.00	$0.00
	Ad Valorem-Personal (Busine	$128,913		$0.00	$0.00	$0.00	$0.00	$0.00	$99.69	$156.01	$71.51
Intergovernmental	Intergovtl-State	$1,945,958	32.14%	$836.97	$836.97	$836.97	$502.18	$502.18	$0.00	$0.00	$0.00
	Powell Bill (population)	$136,374	2.25%	$58.66	$58.66	$58.66	$35.19	$35.19	$0.00	$0.00	$0.00
	Powell Bill (lane miles)	$45,458	0.75%	$7.43	$7.43	$7.43	$4.51	$5.17	$34.82	$12.16	$2.97
	Intergovtl-Local	$95,000	1.57%	$40.86	$40.86	$40.86	$24.52	$24.52	$0.00	$0.00	$0.00
Fees & Other Revenues	License & Permit Fees	$157,500	2.60%	$42.61	$42.61	$42.61	$25.56	$25.56	$45.19	$70.72	$32.42
	Service Fees	$310,700	5.13%	$84.05	$84.05	$84.05	$50.43	$50.43	$89.14	$139.51	$63.95
	Investments	$15,000	0.25%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	Rents/Leases	$212,812	3.52%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	Franchise Fees	$11,000	0.18%	$2.98	$2.98	$2.98	$1.79	$1.79	$3.16	$4.94	$2.26
	Contributions	$0	0.00%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	Recreation Fees	$33,500	0.55%	$14.41	$14.41	$14.41	$8.65	$8.65	$0.00	$0.00	$0.00
	Miscellaneous Revenues	$135,000	2.23%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
	TOTAL General Fund Revenues	**$6,053,737**	**100.00%**	**$3,080.94**	**$2,126.34**	**$1,836.09**	**$1,350.76**	**$1,143.72**	**$770.79**	**$1,006.83**	**$340.81**

For further detail, the figure below shows General Fund property tax revenue per prototype in the Town of Aberdeen.

Figure 53. TOWN OF ABERDEEN General Fund Property Tax by Prototype

RESIDENTIAL PROTOTYPES

	Land Use Prototype	*Assessed Value Per Unit (rounded) [2]*	*FY 2011 Tax Rate (per $100)*	*Ad Valorem Taxes*
	Single Family Detached (SFD)			
1	**SFD High Value**	$434,300	$0.430	$1,867
2	**SFD Medium Value**	$212,300	$0.430	$913
3	**SFD Low Value**	$144,800	$0.430	$623
4	**Townhouse**	$144,800	$0.430	$623
5	**Multifamily**	$96,500	$0.430	$415

NONRESIDENTIAL PROTOTYPES

	Land Use Prototype [1]	*Assessed Value Per 1,000 sf (rounded) [2]*	*FY 2011 Tax Rate (per $100)*	*Ad Valorem Taxes per 1,000 sf*
1	**Commercial/Retail**	$116,000	$0.430	$499
2	**Offices (Prof. and Bus. Srvcs)**	$145,000	$0.430	$624
3	**Industrial**	$39,000	$0.430	$168

General Fund Expenditures

Figure 54. TOWN OF ABERDEEN General Fund Expenditures by Prototype: Per Residential Unit and Per 1,000 Square Feet of Nonresidential Floor Area

Expenditure Category	FY 2011 Amount	Percent of Total	Residential: Per Unit					Nonresidential: Per 1,000 Square Feet		
			SFD High Value	*SFD Average Value*	*SFD Low Value*	*Townhouse Unit*	*Multifamily Unit*	*Retail*	*Office*	*Industrial*
Administration	$143,135	2.36%	$38.72	$38.72	$38.72	$23.23	$23.23	$41.07	$64.27	$29.46
Special Appropriations	$28,427	0.47%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Governing Body	$20,006	0.33%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Finance	$257,855	4.26%	$69.76	$69.76	$69.76	$41.85	$41.85	$73.98	$115.78	$53.07
Buildings and Grounds	$162,053	2.68%	$43.84	$43.84	$43.84	$26.30	$26.30	$46.49	$72.76	$33.35
Contingency	$0	0.00%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Law Enforcement	$2,055,810	33.96%	$556.15	$556.15	$556.15	$333.69	$333.69	$1,081.28	$377.55	$92.16
Fire Department	$1,040,414	17.19%	$281.46	$281.46	$281.46	$168.88	$168.88	$547.22	$191.07	$46.64
Planning	$418,945	6.92%	$113.34	$113.34	$113.34	$68.00	$68.00	$120.20	$188.11	$86.23
Parks and Recreation	$352,430	5.82%	$151.58	$151.58	$151.58	$90.95	$90.95	$0.00	$0.00	$0.00
Streets	$437,551	7.23%	$71.56	$71.56	$71.56	$43.44	$49.72	$335.13	$117.02	$28.56
Powell Bill	$181,832	3.00%	$29.74	$29.74	$29.74	$18.05	$20.66	$139.27	$48.63	$11.87
Beautification	$86,903	1.44%	$23.51	$23.51	$23.51	$14.11	$14.11	$24.93	$39.02	$17.89
Sanitation	$415,744	6.87%	$178.81	$178.81	$178.81	$107.29	$107.29	$0.00	$0.00	$0.00
Debt Service	$452,632	7.48%	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Total General Fund Expenditures	**$6,053,737**	**100.00%**	**$1,558.47**	**$1,558.47**	**$1,558.47**	**$935.80**	**$944.69**	**$2,409.57**	**$1,214.21**	**$399.22**

We estimated annual capital expenditures using debt service information data from the Town budget as well as information on the planned fire station.

Figure 55.TOWN OF ABERDEEN General Fund Capital Expenditures by Prototype: Per Residential Unit and Per 1,000 Square Feet of Nonresidential Floor Area

		Residential: Per Unit					Nonresidential: Per 1,000 Square Feet		
		SFD High Value	*SFD Average Value*	*SFD Low Value*	*Townhouse Unit*	*Multifamily Unit*	*Retail*	*Office*	*Industrial*
Capital Costs (Debt Service)	$452,632	$122.45	$122.45	$122.45	$73.47	$73.47	$129.86	$203.23	$93.16
Planned Fire Station (Estd Debt Servi	$160,000	$86.30	$86.30	$86.30	$52.39	$59.97	$84.15	$29.38	$7.17
	$612,632	**$208.75**	**$208.75**	**$208.75**	**$125.86**	**$133.44**	**$214.02**	**$232.62**	**$100.33**