
FISCAL IMPACT ANALYSIS: PHASE I OF CAROLINA NORTH

*University of North Carolina-Chapel Hill
Town of Chapel Hill, North Carolina
Town of Carrboro, North Carolina
Orange County, North Carolina*

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I. EXECUTIVE SUMMARY

OVERVIEW

TischlerBise has been retained by the University of North Carolina Chapel Hill (UNC) on behalf of the *Carolina North Fiscal Impact Monitoring Committee*, which consists of the Town of Chapel Hill, the Town of Carrboro, Orange County, and UNC, to conduct a Fiscal Impact Analysis of **Phase I of Carolina North**. The Monitoring Committee is overseeing the project and providing guidance where necessary on this assignment. The project also includes an economic and fiscal analysis of secondary impacts resulting from Carolina North.

Carolina North is anticipated to be a research and mixed-use academic campus planned for 250 acres two miles north of the main campus of UNC-Chapel Hill. The ultimate buildout of the site is anticipated to take approximately 50 years. The first phase of Carolina North is expected to occur over a 15-year period and includes university buildings, private office space, retail, and housing. **This fiscal analysis is based on the first 15 years of projected development**, herein referred to as Phase I of Carolina North.

A fiscal impact evaluation analyzes revenue generation and operating and capital costs to a jurisdiction associated with the provision of public services and facilities under a set of assumptions. A fiscal impact analysis shows direct revenues and costs from **new development only** and does not include revenues or costs generated from existing development.

This document, and the accompanying *Level of Service Document* issued as an Appendix to this study, provides the baseline fiscal impact analysis of Phase I of Carolina North. It is a snapshot of the current practices of the localities anticipated to be affected by Carolina North. It is intended as a point of departure for potential consideration and evaluation of any number of elements such as testing other development scenarios, changing policies and/or levels of service. Changes to the assumptions on which the analysis is based would affect the results; however, some elements are more sensitive to modifications than others. For this reason, part of the project's work scope involves providing the fiscal model to UNC to enable testing of alternatives.

Two development scenarios for Phase I of Carolina North were provided to TischlerBise by UNC to conduct the Fiscal Impact Analysis. The two development scenarios evaluated for the Phase I of Carolina North are represented by numerical projections of nonresidential building area, employment, housing units, and population. Two additional scenarios were evaluated that reflect the estimated *indirect impacts* from Phase I of Carolina North. The indirect growth projections were developed by a sub-consultant on this assignment (The Chesapeake Group) as part of an Economic Impact Analysis and are also represented by numerical projections of nonresidential building area, employment, housing units, and population. The numerical projections are inputs to the fiscal model.

This report, *Fiscal Impact Analysis of Phase I of Carolina North*, is really three fiscal studies—one for each of the jurisdictions (Town of Chapel Hill, Orange County, and Town of Carrboro) included in the study as well as the two school districts. For each jurisdiction, the fiscal analysis includes all General Fund activities. Fiscal results are presented for the direct impacts, indirect impacts, and combined impacts for each jurisdiction. The report concludes with detail on revenues and expenditures for each jurisdiction for each scenario evaluated.

SCENARIOS / DEMAND

Two development scenarios for Phase I of Carolina North are analyzed. Both scenarios include university development (some of which represents a shift from the main campus to Carolina North), corporate office space, retail, and housing. The scenarios differ in the timing of both housing and corporate office development as well as the mix of housing types.

- *Scenario 1: Phasing Balanced/Housing Early.* This development scenario assumes that housing is developed in the first ten years and corporate office space is phased over the 15 year projection period. The timing for the corporate office space is assumed later in Scenario 1 than Scenario 2. Housing is assumed as a mix of graduate housing and workforce housing, with more as graduate units in this scenario when compared to Scenario 2. Development of University space is assumed to occur over the 15-year period and is the same in Scenario 2.
- *Scenario 2: Faster Absorption/Less Graduate Student Housing/Later Housing.* This scenario assumes corporate office space is mostly developed over the first ten years, less of the housing square footage is built as graduate housing, and all housing occurs in the last ten of the fifteen years. The University construction program is the same in this scenario as Scenario 1.

A summary of demand assumptions are provided in the figures below. The “Direct” columns reflect the demand factors from 15-year development at Carolina North. “Indirect” reflects the

assumed spin-off development (outside of Carolina North) over the same 15-year time period as a result of Carolina North Phase I. Figure 1 summarizes the residential development assumptions and includes data for the projected net increases in housing units, population, and public school students in each scenario. Figure 2 provides summaries for the nonresidential (employment) portion of the development.

Figure 1. Scenario Comparisons: Projected Net Increases (15-Year Period) RESIDENTIAL

RESIDENTIAL	SCENARIO 1		SCENARIO 2	
	Direct	Indirect	Direct	Indirect
Housing Units				
Carolina North [1]				
University Housing (multifamily)	250		125	
Private Housing (multifamily)	167		250	
Total Units	417		375	
Estimated Indirect Housing Units by Jurisdiction [2]				
Chapel Hill		1,468		1,468
Carrboro		309		309
Other Orange County [3]		193		193
Orange County [4]		1,911		1,911
Population [5]				
Chapel Hill	751	3,024	675	3,024
Carrboro	0	743	0	743
Other Orange County	0	464		464
Orange County [4]	751	4,110	675	4,110
Public School Students [6]				
CHCCS	29	608	26	608
OCS	0	58	0	58

[1] UNC; located in Chapel Hill and Orange County

[2] The Chesapeake Group; distribution based on current patterns of residences of UNC employees as reported by UNC.

[3] Outside Towns of Chapel Hill and Carrboro

[4] For Indirect impact, 4 percent of total Chapel Hill population is assumed to be outside of Orange County.

[5] Based on average household size by type from Chapel Hill and U.S. Census; see Appendix

[6] Based on student generation rates by type of housing unit from Orange County and TischlerBise; see Appendix.

For example, for Carolina North Scenario 1, the formula is number of units (417 multifamily) x .07 students per multifamily unit = 29 students

Figure 2. Scenario Comparisons: Projected Net Increases (15-Year Period): NONRESIDENTIAL

NONRESIDENTIAL	SCENARIO 1		SCENARIO 2	
	Direct	Indirect	Direct	Indirect
Projected Total Jobs at Carolina North [1]				
University	2,725		2,725	
Corporate Office Jobs	2,100		2,100	
Retail Jobs	333		333	
TOTAL On-Site	5,158		5,158	
Existing UNC Jobs Anticipated to Move to CN	1,567		1,567	
Projected Direct New Jobs at Carolina North [2]	3,591		3,591	
Projected Indirect New Jobs (in Region) [3]		5,027		5,027
Estimated Jobs in Study Jurisdictions				
Chapel Hill		1,106		1,106
Carrboro		251		251
Other Orange County		251		251
Orange County [4]		1,564		1,564

[1] UNC; located in Chapel Hill and Orange County.

[2] Total on-site jobs (5,158) minus relocated jobs (1,567) = Net new jobs (3,591)

[3] The Chesapeake Group; distribution based on current development patterns

[4] For Indirect impact, 4 percent of total Chapel Hill employment is assumed to be outside of Orange County.

APPROACH AND MAJOR ASSUMPTIONS

A fiscal impact analysis determines whether revenues generated by new growth are sufficient to cover the resulting costs for service and facility demands placed on a jurisdiction. In this case, the new growth is development of Phase I of Carolina North and the indirect impacts that occur due to the development. This fiscal impact analysis primarily uses an average cost method to capture the incremental costs due to the development. Because the development itself may not be large enough to trigger the need for certain facilities and accompanying operating impacts, the analysis employs an average cost approach. There are exceptions to this, where a case study-marginal methodology is used, which takes site or geographic-specific information into consideration (for example, Chapel Hill Fire services).

Service level, revenue, and cost assumptions are based on TischlerBise's on-site interviews and follow-up discussions with staff, detailed analysis of Fiscal Year 2008 budgets, and other relevant documents. Additionally, our local fiscal experience with North Carolina jurisdictions as well as our national experience conducting over 600 fiscal impact analyses was beneficial. Assumptions are outlined in the *LOS Document* (issued as an Appendix under separate cover) and are utilized along with the development projections to calculate the fiscal impact on the jurisdictions over a 15-year projection period. Calculations are performed using a customized fiscal impact model designed specifically by TischlerBise for this assignment.

General Approach

For this analysis, all costs and revenues directly attributable to the new development—by type of development—are included. Personnel and other operating costs are projected, as are expenditures for capital improvements. For each jurisdiction, the General Fund is modeled—including both school districts in the County analysis—as well as capital funds. Enterprise funds (e.g., utilities) are not included in this analysis as they are assumed to be self-sufficient.

Some costs and revenues are not expected to be impacted by demographic changes, and are therefore considered “fixed” in this analysis. TischlerBise reviewed FY2008 budgets from each jurisdiction and available supporting documentation as well as interviewed staff to develop baseline assumptions for the analysis. Assumptions are documented in the *LOS Document* issued as an Appendix to this report.

Level of Service

The cost projections are based on a “snapshot approach” in which it is assumed the current levels of service, as funded in the respective jurisdictional budget and as provided in current capital facilities, will continue through the 15-year analysis period. The current demand base data was used to calculate unit costs and service level thresholds. Examples of demand base data include population, dwelling units, employment by type, vehicle trips, etc. In summary, the “snapshot” approach does not attempt to speculate about how levels of service, costs, revenues, policies, and other factors will change over time. Instead, it evaluates the fiscal impact of new growth to each of the jurisdictions as conducted under the current budgets used in this analysis. The *LOS Document* provides further detail on levels of service assumptions.

Revenue Structure

Revenues are projected assuming that the current revenue structures and rates for each jurisdiction, as defined in the respective FY2008 budgets, will not change during the analysis period.

Inflation Rate

The rate of inflation is assumed to be zero throughout the projection period, and cost and revenue projections are in constant 2008 dollars. This assumption is in accord with budget data and avoids the difficulty of speculating on inflation rates and their effect on cost and revenue categories. It also avoids the problem of interpreting results expressed in inflated dollars over an extended period of time. In general, including inflation is complicated and unpredictable.

This is particularly the case given that some costs, such as salaries, increase at different rates than other operating and capital costs such as contractual and building construction costs. And these costs, in turn, almost always increase in variation to the appreciation of real estate, thus affecting the revenue side of the equation. Using constant dollars avoids these issues.

Non-Fiscal Evaluations

It should be noted that while a fiscal impact analysis is an important consideration in planning and policy decisions, it is only one of several issues that should be considered. Environmental and social 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 future development.

SUMMARY OF FISCAL IMPACT ANALYSIS RESULTS

Annual net results are shown to summarize the net fiscal impacts of Phase I of Carolina North to each jurisdiction. Direct fiscal impacts are shown first, followed by fiscal results for the indirect growth, and then results for the combined impact.

On the charts below, **data points above the \$0 line represent annual net surpluses; points below the \$0 line represent annual net deficits.** Each year reflects total revenues generated minus total expenditures incurred in the same year. Both capital and operating costs are included. By showing the results annually, the magnitude, rate of change, and timeline of net deficits and/or net surpluses can be observed over time. The “bumpy” nature of the annual results during particular years represents the opening of capital facilities and/or major operating costs being incurred. Figures are shown in \$1,000s.

Direct Impacts

The fiscal impact analysis results for the direct impacts of Phase I of Carolina North are provided below for each jurisdiction in turn.

Figure 3. Annual Net Fiscal Results – Town of Chapel Hill Direct Fiscal Impacts (x\$1,000)

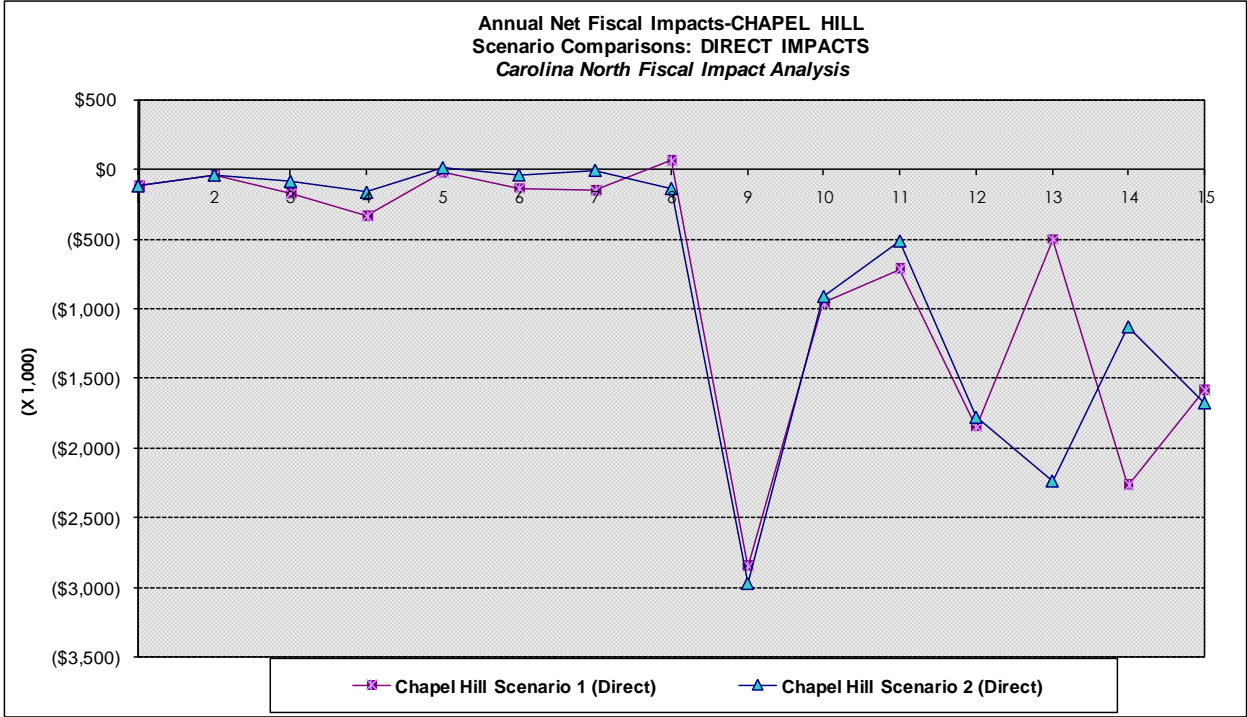


Figure 4. Annual Net Fiscal Results – Orange County Direct Fiscal Impacts (x\$1,000)

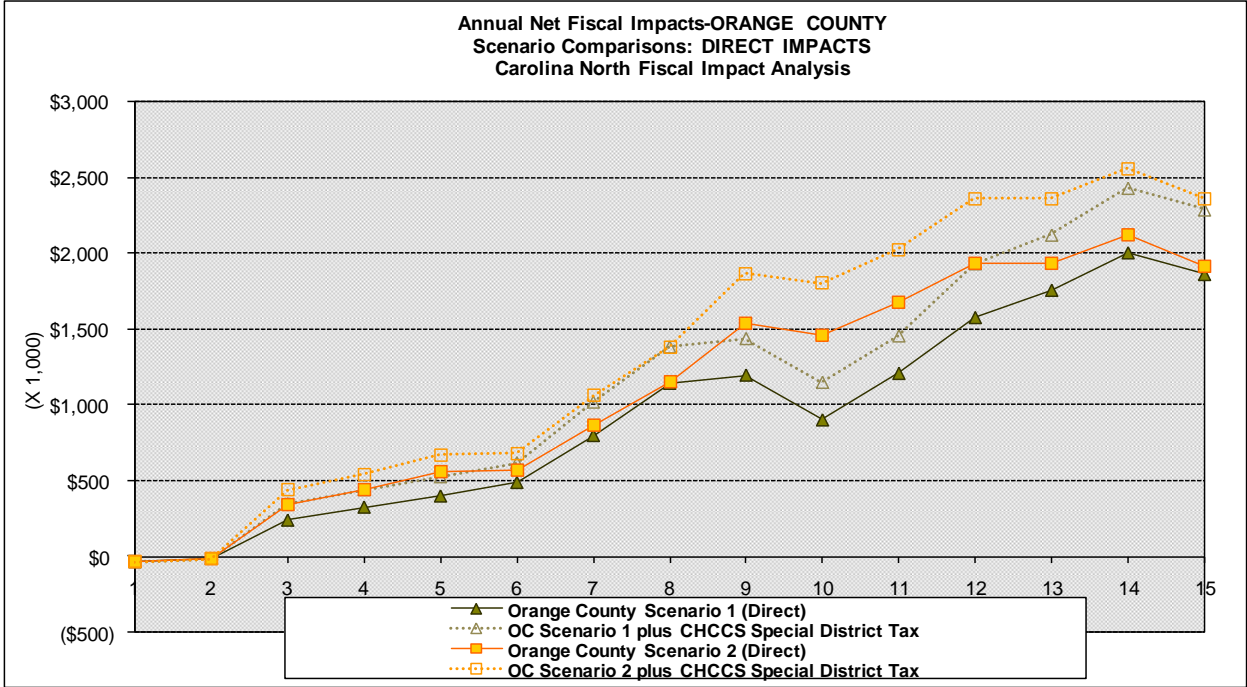
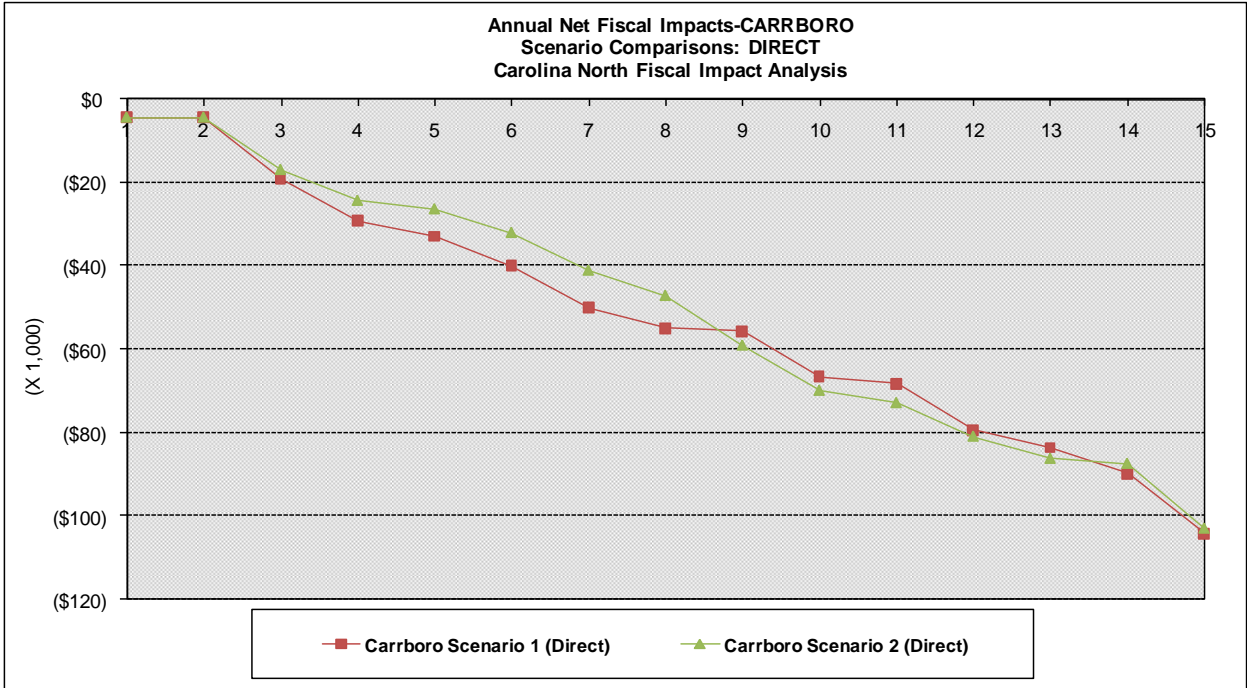


Figure 5. Annual Net Fiscal Results – Town of Carrboro Direct Fiscal Impacts (x\$1,000)



Indirect Impacts

The fiscal impact analysis results for the indirect impacts of Phase I of Carolina North are provided below for each jurisdiction in turn.

Figure 6. Annual Net Fiscal Results – Town of Chapel Hill Indirect Fiscal Impacts (x\$1,000)

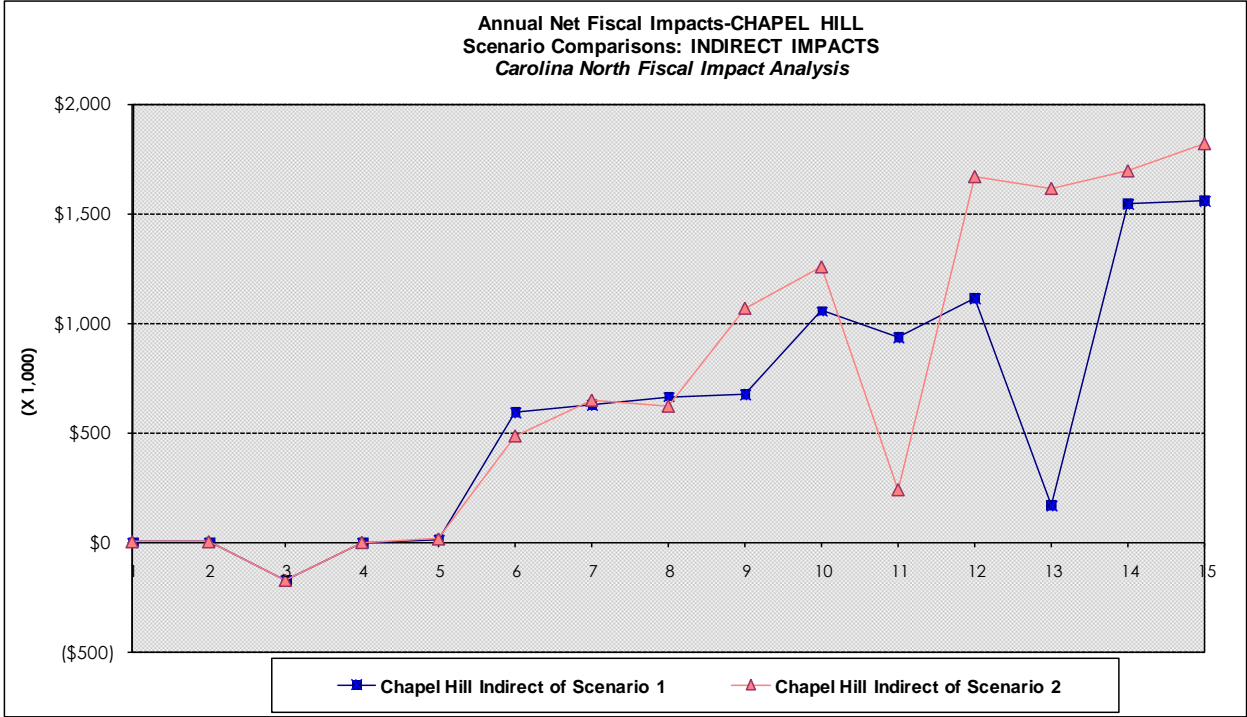


Figure 7. Annual Net Fiscal Results – Orange County Indirect Fiscal Impacts (x\$1,000)

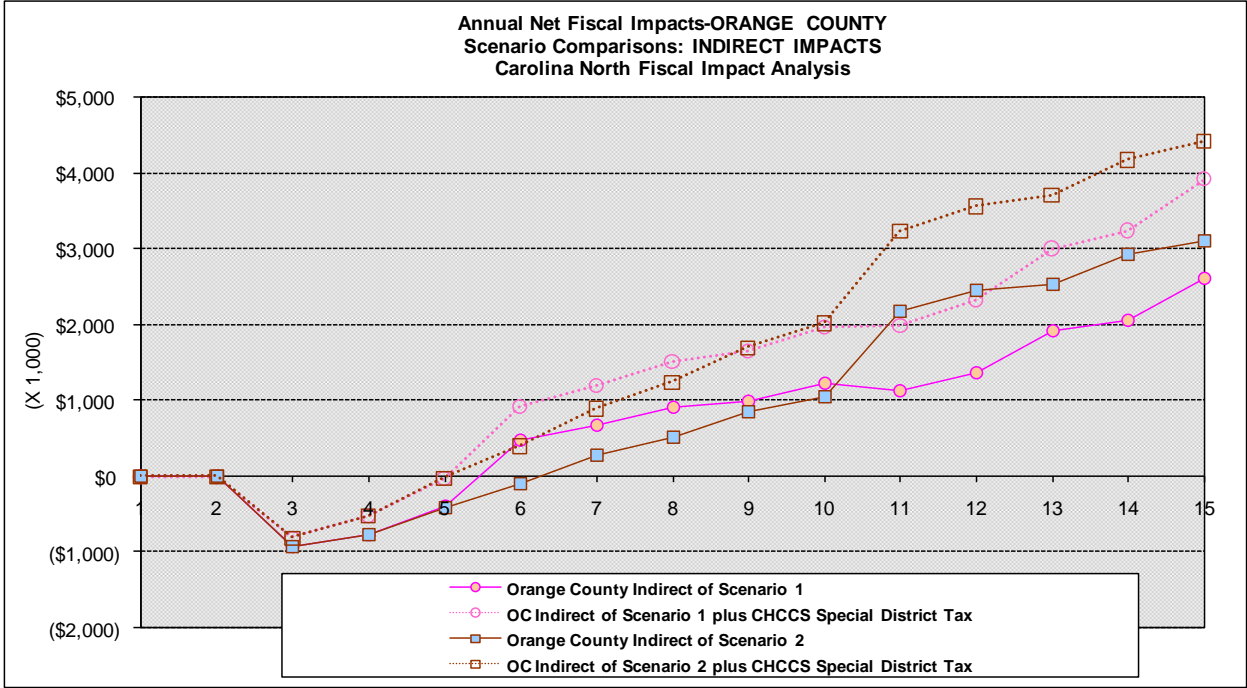
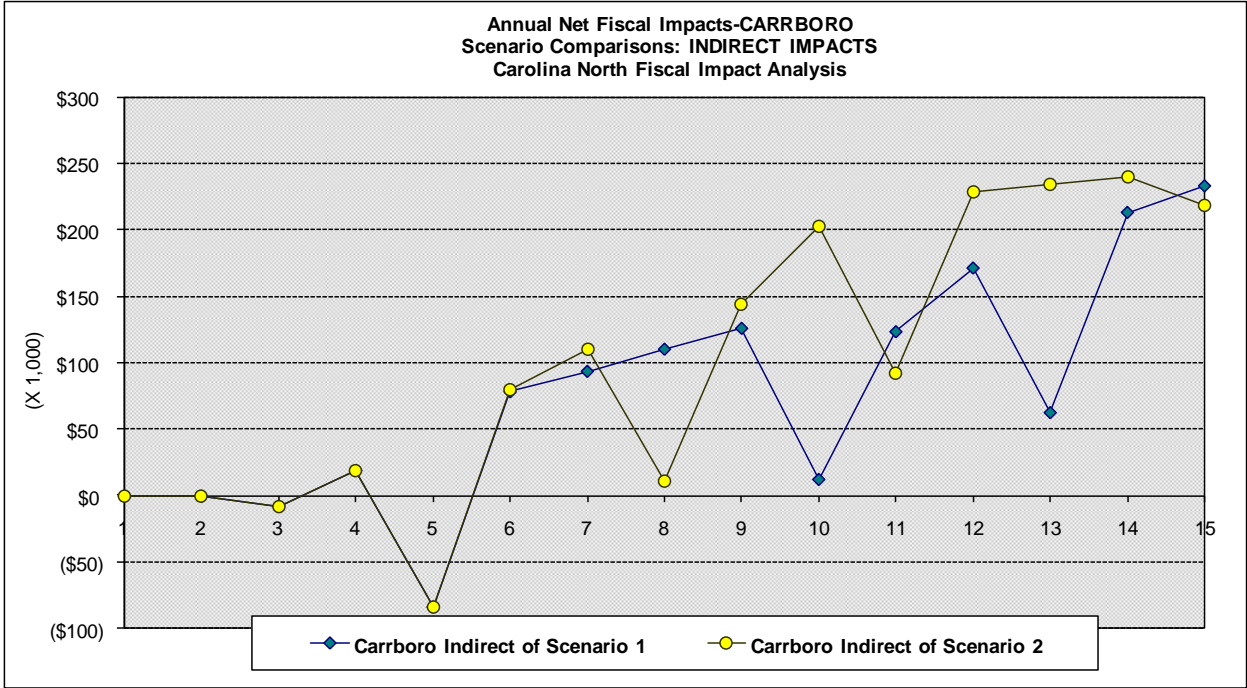


Figure 8. Annual Net Fiscal Results – Town of Carrboro Indirect Fiscal Impacts (x\$1,000)



Combined Impacts

The fiscal impact analysis results for combined impacts (direct plus indirect) of Phase I of Carolina North are provided below for each jurisdiction in turn. Results are shown as in the same manner as above—annual net fiscal results. Annual totals reflect direct plus the indirect results for each scenario.

Figure 9. Annual Net Fiscal Results – Town of Chapel Hill Combined Fiscal Impacts (x\$1,000)

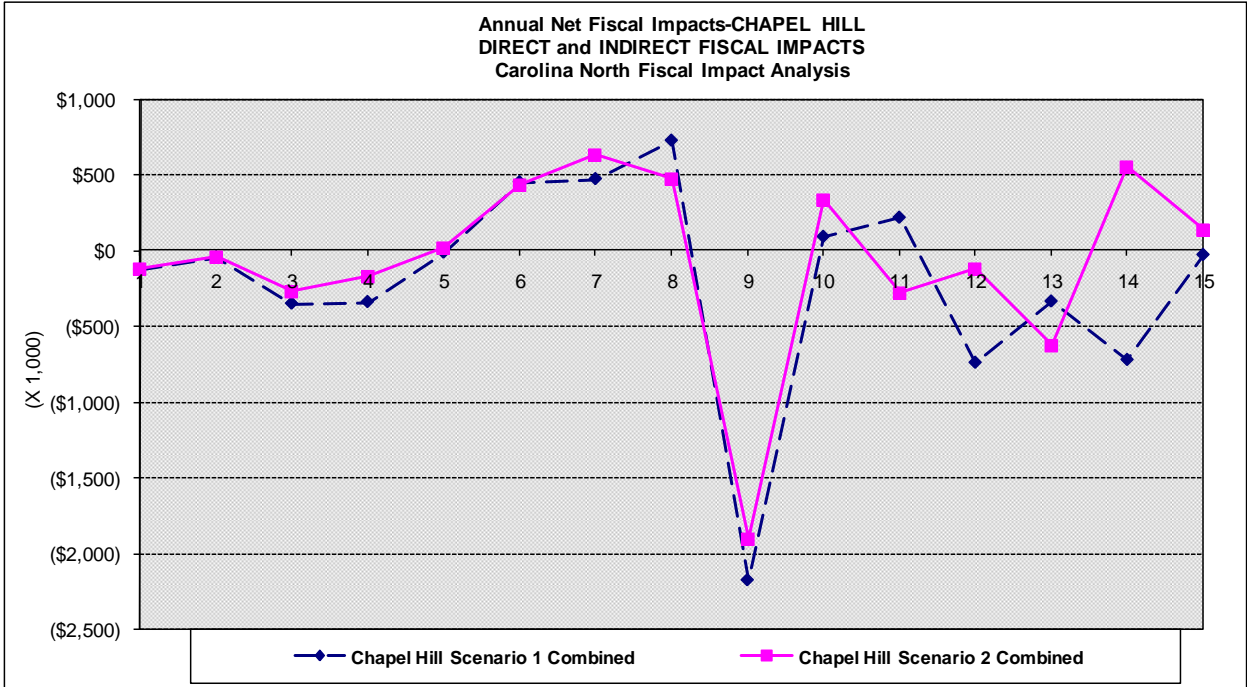


Figure 10. Annual Net Fiscal Results – Orange County Combined Fiscal Impacts (x\$1,000)

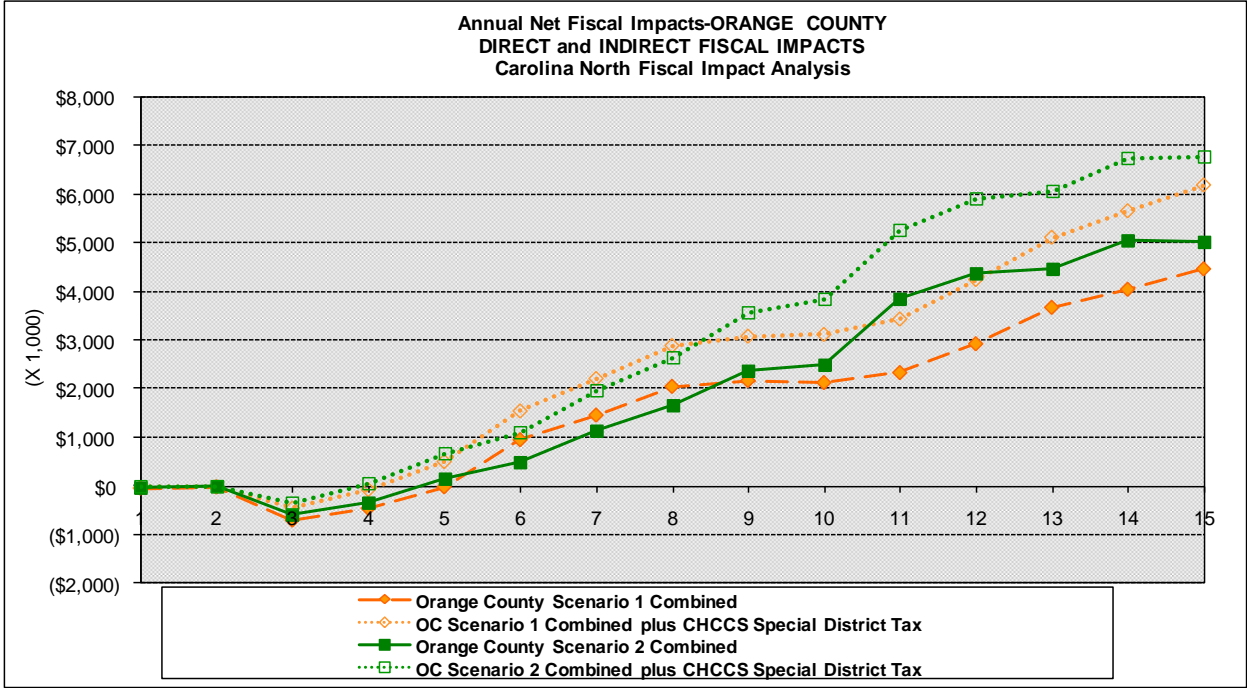
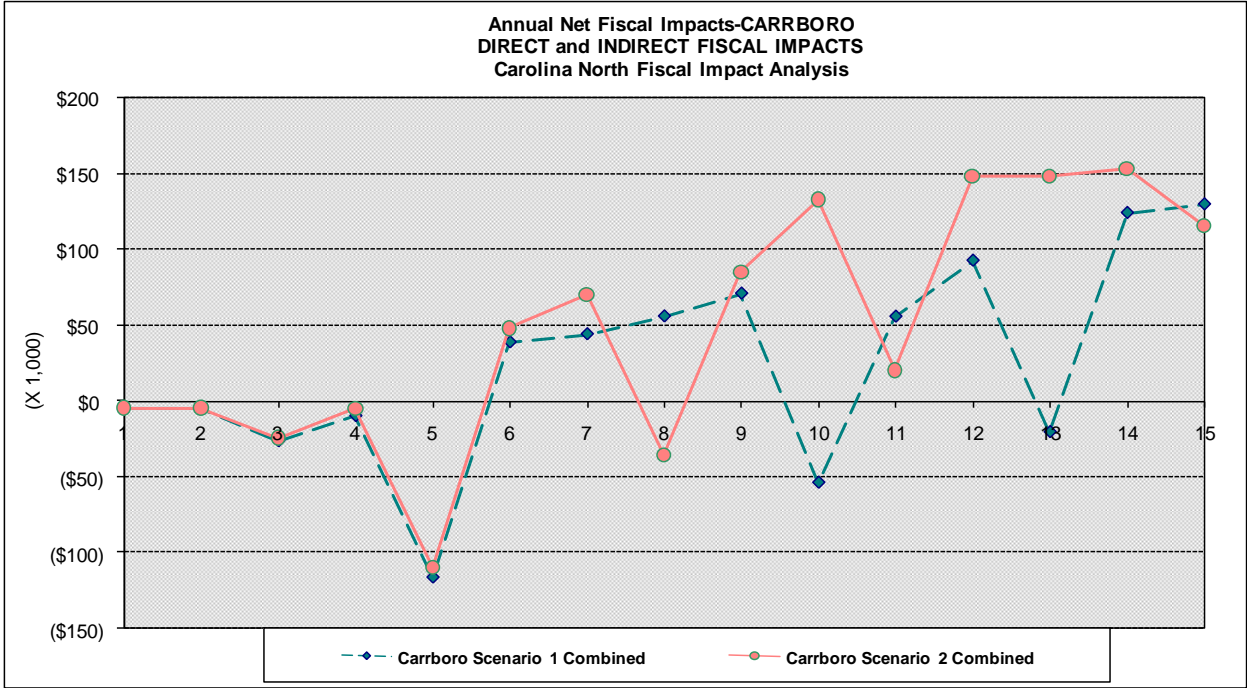


Figure 11. Annual Net Fiscal Results – Town of Carrboro Combined Fiscal Impacts (x\$1,000)



FINDINGS AND DISCUSSION

Town of Chapel Hill

Direct Impacts

- Direct impacts of Phase I of Carolina North are projected to produce net deficits to the Town of Chapel Hill.
- The cumulative 15-year net deficit totals approximately \$11.7 million in Scenario 1 and \$11.9 million in Scenario 2.
- On an average annual basis, the net deficits are approximately \$780,000 and \$792,000 per year for Scenarios 1 and 2 respectively.
- It is assumed that the Town of Chapel Hill Fire Department will serve Carolina North. Existing Town fire stations do not provide the geographic proximity required for adequate service to the Carolina North site, therefore a new fire station and apparatus is projected and triggered when development at Carolina North Phase I is approximately 50 percent complete. Additionally, annual operating costs to staff the station are projected. The annual net deficits generated in the latter years of the 15-year projection period are due mainly to these Fire capital and operating costs.
- On a 15-year cumulative basis, the need for a new Fire station and accompanying annual operating costs represents 43 percent of total expenditures and approximately 85 percent of the projected \$12 million cumulative net deficit.
- Included in the Town of Chapel Hill results is the projected local cost for the Transit Fund for each scenario, which is currently supported in part by the Transit partner entities—Town of Chapel Hill, Town of Carrboro, and UNC. The Town of Carrboro's share of the projected cost (based on the current partner cost-sharing formula) is assumed as revenue into the Chapel Hill Transit Fund. The cost to Carrboro is reflected in the Town of Carrboro's results.
- The analysis assumes that the Town Police Department will not serve Carolina North but that the University's Public Safety Office will provide police services. However, it is assumed that Town of Chapel Hill Police will be impacted by development at Carolina North due to an increase in traffic. Projected costs for Town police services are included in the analysis.
- The analysis assumes that no new Town Roads are built as a result of the Carolina North development for which the Town will assume maintenance responsibility. However, incremental maintenance costs are projected due to an increase in vehicle trips on Town roads as a result of the Carolina North development.

Indirect Impacts

- The indirect impacts generally produce annual net surpluses to the Town in each year of the projection period with a few exceptions in the early years where net deficits or

fiscally neutral results are produced. The initial net deficits are due to growth assumed starting in year 3 with costs generated and insufficient revenues to cover those expenditures. Subsequent years are projected to generate sufficient revenues to cover the related costs.

- The cumulative net surplus for the indirect scenarios totals approximately \$8.8 million in Scenario 1 and \$10.9 million in Scenario 2.
- The average annual net surplus is approximately \$584,000 to \$728,000 per year depending on the scenario.
- Scenario 2 assumes earlier nonresidential development, which results in earlier indirect impacts that generate annual tax revenues as well as annual costs. Because these impacts occur earlier, all revenues and costs are higher in Scenario 2 than Scenario 1, as is the cumulative net surplus.

Combined Impacts

- Combined direct and indirect impacts generate cumulative net fiscal deficits to the Town of Chapel Hill in both scenarios. The combined cumulative net deficit is approximately \$2.9 million in Scenario 1 and \$967,000 in Scenario 2.
- Average annual net deficits are \$196,000 and \$64,000 for Scenarios 1 and 2 respectively.
- As noted above, direct impacts generate net deficits and indirect impacts generate net surpluses. However, the net surpluses are not sufficient to offset the projected direct costs, although Scenario 2 produces essentially fiscally neutral results.
- As noted above, the results include the Town of Carrboro's contribution to the Transit Fund.

Orange County

Direct Impacts

- Annual net surpluses are generated to Orange County for both direct impact scenarios in each year of the 15-year projection period except the first two years where minimal net deficits are generated.
- Cumulative net fiscal surpluses are generated to Orange County in both direct scenarios. The cumulative net surplus totals approximately \$13.8 million in Scenario 1 and \$16.4 million in Scenario 2.
- The Chapel Hill-Carrboro City Schools (CHCCS) Special District Tax is an ad valorem tax that goes directly to CHCCS and is reported outside the Orange County General Fund. Therefore, the net fiscal results are shown both with the additional revenue and without it. When the CHCCS Special District tax is added in, the cumulative net surplus increases to \$17.1 million and \$20.1 million for Scenario 1 and 2 respectively.
- On an average annual basis, net surpluses of approximately \$921,000 to \$1.1 million per year are generated depending on the scenario. With the CHCCS Special District Tax, the

average annual net surpluses increase to \$1.1 million for Scenario 1 and \$1.3 million for Scenario 2.

- Results are due to the revenue structure of the County where the main revenue sources from property and sales taxes aggregate over time. The results are also due in part to the type of development assumed—more nonresidential than residential, which results in relatively low school costs.
- The relatively low school costs are due to the assumption of multifamily units at Carolina North, which have lower student generation rates than other type of residential development particularly in the Chapel Hill-Carrboro School District.
- There is a notable difference in projected expenditures between Scenario 1 and 2. This is due primarily to fewer housing units assumed in Scenario 2, which results in fewer projected public school students and therefore lower school operating and capital costs. Differences are also due to assumptions on the timing of development. Scenario 2 assumes that housing is developed later than Scenario 1 during the 15-year period, therefore cumulative school operating costs are lower for Scenario 2. An earlier occurrence of school expenditures increases the cumulative costs to the County.
- Cumulative CHCCS special district tax is projected at \$3.2 million for Scenario 1 and \$3.6 million for Scenario 2.

Indirect Impacts

- Indirect impact scenarios produce net surpluses starting around year 6 of the 15-year projection period. The initial years generate net deficits due to the demand for services, in particular schools operating and capital, without commensurate revenues. In the later years, revenues from property and sales taxes accrue and are sufficient to cover the projected costs.
- Cumulative net fiscal surpluses are generated to Orange County in both indirect scenarios of approximately \$11.3 million in Scenario 1 and \$13.7 million in Scenario 2. When the CHCCS Special District Tax is added in, the cumulative net surplus is \$20.4 million and \$24.1 million for Scenario 1 and 2 respectively.
- Average annual surpluses are approximately \$751,000 to \$916,000 depending on scenario. With CHCCS Special District Tax revenue, the average annual net surpluses increase to \$1.4 million for Scenario 1 and \$1.6 million for Scenario 2.
- As noted above, the County reports CHCCS special district tax revenue separately therefore results are shown separately as well. Projected cumulative (15-year) revenue from this ad valorem tax from indirect growth is \$9.2 million for Scenario 1 and \$10.3 million for Scenario 2.

Combined Impacts

- For the combined impacts, cumulative net fiscal surpluses are generated to Orange County. The combined cumulative net surplus is projected at approximately \$25.1 million in Scenario 1 and \$30.2 million in Scenario 2. When the CHCCS Special District

Tax is added in, the cumulative net surplus increases to \$37.5 million and \$44.1 million for Scenario 1 and 2 respectively.

- Average annual figures are \$1.7 and \$2 million for Scenarios 1 and 2 respectively. With CHCCS Special District Tax revenue, the average annual figures increase to \$2.5 million for Scenario 1 and \$2.9 million for Scenario 3.
- As noted, CHCCS special district tax revenue is projected separately. Combined totals are \$12.4 million for Scenario 1 and almost \$14 million for Scenario 2.
- Schools operating and capital costs for both districts account for approximately 75 percent of the combined expenditures. The analysis includes the incremental cost to serve projected new students generated from the Carolina North development and the indirect spin-off development. The analysis includes these costs on a *per seat/student basis*, rather than waiting for a certain threshold to be reached such as the need for a new school or an expansion. In reality, the County would not build one seat at a time; however, to truly reflect the cost of growth, the incremental capital costs are included.
- Other capital costs are treated in the same manner with incremental costs being incurred as growth occurs as opposed to waiting for certain thresholds to be met.

Town of Carrboro

Direct Impacts

- Annual net deficits are generated to the Town of Carrboro due to the Town's contribution for Transit expenditures. The fiscal analysis projects additional Transit costs due to development at Carolina North. These projected expenditures reflect the local partners' share of the cost and Carrboro's share is based on the current cost-sharing formula and approach. Deficits are created since there are no direct revenues generated in the Town of Carrboro from development at Carolina North.
- The cumulative 15-year net deficit totals approximately \$782,000 in Scenario 1 and \$755,000 in Scenario 2.
- On an average annual basis, the net deficits are approximately \$52,000 and \$50,000 per year for Scenarios 1 and 2 respectively.

Indirect Impacts

- The indirect scenarios generally produce annual net surpluses to the Town of Carrboro over the projection period in each year with a few exceptions. In the early years, results are essentially fiscally neutral. In year 5, a net deficit is generated due to capital expenditures for recreation and parks. Starting in year 6, development is projected to generate sufficient revenues to cover related costs.
- Cumulative net fiscal surpluses are generated to the Town of Carrboro from indirect impacts in both scenarios. The cumulative net surplus totals approximately \$1.2 million in Scenario 1 and \$1.5 million in Scenario 2.

- Average annual net surpluses are approximately \$77,000 to \$100,000 depending on scenario.
- As noted in the Town of Chapel Hill discussions, projected Transit expenditures are included in the Town of Carrboro's results. Carrboro's share of this future cost to serve development due to indirect impacts as part of the current partnership agreement with Town of Chapel Hill and UNC is projected at a cumulative 15-year cost of approximately \$625,000 to \$692,000 depending on the scenario.
- Scenario 2 produces slightly better results for Carrboro. Surpluses are generated due to the aggregating nature of property and sales taxes, with Scenario 2 assuming earlier nonresidential development and therefore earlier spin-off impacts that are generating annual tax revenues sufficient to cover the costs generated.

Combined Impacts

- Cumulative net fiscal deficits are generated in the direct scenarios due to the Town of Carrboro's contribution for Transit expenditures as a result of Carolina North and cumulative net surpluses are generated to the Town from indirect impacts in both scenarios. Combined, the cumulative net surplus totals approximately \$377,000 in Scenario 1 and \$743,000 in Scenario 2.
- Average annual net surpluses are approximately \$25,000 and \$50,000 depending on scenario.
- On a cumulative basis, revenues are sufficient to cover the costs generated by the impacts under the assumptions for these two scenarios with the second scenario producing slightly better results. Surpluses are generated due to the aggregating nature of property and sales taxes, with Scenario 2 assuming earlier nonresidential development and therefore earlier spin-off impacts that are generating annual tax revenues.

General Discussion

- With the exception of the Town of Chapel Hill direct impacts, the results indicate that the overall revenue structure, with major annual revenue sources from property and sales taxes, is sufficient to cover the costs to serve the projected development in each scenario per the assumptions in the analysis. Revenue from property and sales taxes combined are the primary revenue sources for all three jurisdictions. For all jurisdictions in the study, these sources represent around 90 percent of total revenues generated by the scenarios. (For the Town of Chapel Hill, the split is approximately 70 percent property taxes and 20 percent sales taxes. For Orange County and the Town of Carrboro, approximately 80 percent of revenues are from property taxes with approximately 10 percent from sales taxes.)

- With property taxes accounting for the largest share of total projected revenue, the property values for new development assumed in this analysis are a main determinant of the results. To the extent property values decline or shifts are made to different types of housing (with resulting lower assessed values), the findings will be affected. The fiscal model that will be provided as part of this work effort will allow testing of potential changed assumptions as market conditions change.
- Sales tax revenue is volatile and fluctuates with the economy and is anticipated to be flat in the short-term in light of the current economic downturn. However, this is a long-term analysis with the first year of development anticipated in 2011. The approach taken for sales tax revenues projected on a per capita methodology is such that it is assumed that sales tax revenues will recover to the per capita amounts used in this analysis. For those sales taxes generated on point of sale or delivery, an average sales per square foot figure is used. To the extent that sales tax generation does not recover in the future to the level assumed in this analysis, revenues and overall findings will be affected. Again, the fiscal model that will be provided as part of this work effort will allow sensitivity analyses to test changing market conditions.
- The results shown reflect all local variable revenues and for the most part do not include State funds (with the exception of sales tax distributions and other County human services funding). To the extent non-local funds remain flat or decrease, local financial obligations to maintain levels of service will increase and will affect the overall results. Alternatively, levels of service will decrease.
- Results include both operating and capital expenditures from new development over the 15-year period. Capital expenditures reflect the incremental costs to serve the projected development in each scenario rather than waiting for the need for an entirely new facility. This approach provides a realistic picture of the direct and indirect capital impacts and resulting costs to serve Carolina North. Furthermore, the capital expenditures assumed in this analysis are based on maintaining current levels of service for all government services, as opposed to including only those costs approved in *Capital Improvements Programs*, master plans, or other facility plans. This approach is representative of the costs of growth because it does not include costs to remedy existing deficiencies (which would result in a higher level of service for future residents), nor is it fiscally constrained.
- As discussed throughout this report and as detailed in the *LOS Document*, the approach of the Fiscal Impact Analysis to project future capital needs is to base those needs on *current levels of service*. No judgment is made as to whether the levels of service are

adequate, inadequate, or better than adequate, nor are any assumptions made regarding future changes in levels of service.

- Additionally, it should be noted that a fiscal impact analysis, while projecting specific capital facilities, is different from a facility plan. Particularly, the results shown and discussed below reflect needs due to *new growth only* and are projected based on current levels of service. This may be different from a facility plan where needs may be due to existing deficiencies, different policies, demographic shifts, technological changes, etc.
- As noted above, the fiscal model developed for this assignment will be provided to UNC. As other studies and analyses related to Carolina North are completed (e.g., traffic impact analysis), those results (i.e., outputs) can be directly entered into the fiscal model (i.e., as inputs) where appropriate. This will allow for further refinement as more detailed information becomes available over time.
- The indirect scenarios rely on the assumption that future development patterns will mirror current conditions. Obviously, this may not be the case. For example, if housing is not available in the Town of Chapel Hill at price points or type desired by new employees based at Carolina North and/or travel behavior and options change substantially, a larger share of these employees may choose to live in unincorporated Orange County—or outside of the study jurisdictions entirely. Again, these changed assumptions can be tested using the fiscal model provided to UNC.
- It is important to acknowledge that fiscal issues are one way to evaluate development and growth trends. Environmental, land use, housing, jobs/housing balance, transportation, and other issues should also be taken into consideration.

Further detail on the results and findings are in the remainder of this report.

II. BACKGROUND

TischlerBise has been retained by the University of North Carolina Chapel Hill (UNC) on behalf of the *Carolina North Fiscal Impact Monitoring Committee*, which consists of the Town of Chapel Hill, the Town of Carrboro, Orange County, and UNC, to conduct a Fiscal Impact Analysis of **Phase I of Carolina North**. The Monitoring Committee is overseeing the project and providing guidance where necessary on this assignment. The project also includes an economic and fiscal analysis of secondary impacts resulting from Carolina North. In addition, two other elements are part of the work scope—an investigation and analysis of potential financing options available to the two Towns and County and the implementation of the fiscal model at UNC.

Carolina North is anticipated to be a research and mixed-use academic campus planned for 250 acres two miles north of the main campus of UNC-Chapel Hill. The ultimate buildout of the site is anticipated to take approximately 50 years. The first phase of Carolina North is expected to occur over a 15-year period and includes university buildings, private office space, retail, and housing. **This fiscal analysis is based on the first 15 years of projected development**, herein referred to as Phase I of Carolina North.

A fiscal impact evaluation analyzes revenue generation and operating and capital costs to a jurisdiction associated with the provision of public services and facilities under a set of assumptions. A fiscal impact analysis shows direct revenues and costs from **new development only** and does not include revenues or costs generated from existing development. A fiscal analysis relies on a set of assumptions. Changes to any of these assumptions may affect the results; however, some elements are more sensitive to modifications than others.

This document, and the accompanying *Level of Service Document* issued as an Appendix to this study, provides the baseline fiscal impact analysis of Phase I of Carolina North. It is a snapshot of the current practices of the localities anticipated to be affected by Carolina North. It is intended as a point of departure for potential consideration and evaluation of any number of elements such as testing other development scenarios, changing policies and/or levels of service. For this reason, part of the project's work scope involves providing the fiscal model to UNC to enable testing of alternatives.

Two development scenarios for Phase I of Carolina North were provided to TischlerBise by UNC to conduct the Fiscal Impact Analysis. The two development scenarios evaluated for the Phase I of Carolina North are represented by numerical projections of nonresidential building area, employment, housing units, and population. Two additional scenarios were evaluated that reflect the estimated *indirect impacts* from Phase I of Carolina North. These impacts were

provided by a sub-consultant on this assignment (The Chesapeake Group) as part of an Economic Impact Analysis and are also represented by numerical projections of nonresidential building area, employment, housing units, and population. These projections are inputs to the fiscal model. Summaries of development/land use assumptions are provided in the body of this document. All discussions and analysis in this document reflect the first phase (15 years) of development at Carolina North only (as reflected in the scenario land use assumptions) and do not include any subsequent phases of development.

After scenarios are identified, the next major step of the fiscal impact analysis is to determine current service levels and capacities and associated revenues and costs. This was done through on-site interviews and follow-up discussions with local staff and a review of applicable budgets and other relevant documents. Additionally, our local fiscal experience with North Carolina jurisdictions as well as our national experience conducting over 600 fiscal impact analyses was beneficial. The results of the level of service/capacity analysis were used to develop a fiscal impact model incorporating all three jurisdictions and the two school districts to assess the fiscal impact of Phase I of Carolina North. The assumptions are based on information provided by staff through interviews, follow-up discussions, and written correspondence. The results of this step are issued as an Appendix to this report (under separate cover) in a document entitled, *Level of Service / Cost and Revenue Assumptions (LOS Document): Appendix to the Fiscal Impact Analysis of Phase I of Carolina North*.

The *Fiscal Impact Analysis of Phase I of Carolina North* is really three fiscal studies—one for each of the jurisdictions (Town of Chapel Hill, Orange County, and Town of Carrboro) included in the study as well as the two school districts. For each jurisdiction, the fiscal analysis includes all General Fund activities for each of the two development scenarios being evaluated. In addition, the estimates of secondary or indirect impacts (e.g., new housing and employment created as a result of development at Carolina North) are used to determine the indirect fiscal impacts on each jurisdiction.

As noted above, a fiscal impact analysis determines whether revenues generated by development are sufficient to cover the resulting costs from that development for service and facility demands placed on the localities under current levels of service. It should not be viewed as a budget-forecasting document. A fiscal analysis essentially looks at revenues and expenditures separately. It does not project expenditures based on revenues available—unlike the annual budget process where a budget is balanced with the resources available.

It should also be noted that the level of capital expenditures assumed in the analysis and the resulting costs are projected independent of certain policy-making decision points such as capital improvement plans, debt capacity guidelines, or expectations for levels of service. Rather, the costs projected in this analysis *reflect the costs to serve development (direct and indirect), regardless of whether the resources are available to cover the costs*.

III. SUMMARY OF SCENARIOS / DEMAND

Two development scenarios for Phase I of Carolina North are analyzed. Both scenarios include university development (some of which represents a shift from the main campus to Carolina North), corporate office space, retail, and housing. The scenarios differ in the timing of both housing and corporate office development as well as the mix of housing types.

- *Scenario 1: Phasing Balanced/Housing Early.* This development scenario assumes that housing is developed in the first ten years and corporate office space is phased over the 15 year projection period. The timing for the corporate office space is assumed later in Scenario 1 than Scenario 2. Housing is assumed as a mix of graduate housing and workforce housing, with more as graduate units in this scenario when compared to Scenario 2. Development of University space is assumed to occur over the 15-year period and is the same in Scenario 2.
- *Scenario 2: Faster Absorption/Less Graduate Student Housing/Later Housing.* This scenario assumes corporate office space is mostly developed over the first ten years, less of the housing square footage is built as graduate housing, and all housing occurs in the last ten of the fifteen years. The University construction program is the same in this scenario as Scenario 1.

A summary of demand assumptions are provided in the figures below. The “Direct” columns reflect the demand factors from 15-year development at Carolina North. “Indirect” reflects the assumed spin-off development over the same 15-year time period as a result of Carolina North Phase I. Figure 12 summarizes the residential development assumptions and includes data for the projected net increases in housing units, population, and public school students in each scenario. Figure 13 provides summaries for the nonresidential (employment) portion of the development. The data show total estimated new jobs as well as net new jobs. **Net new nonresidential demand (i.e., net new jobs) is used in most cases to determine the fiscal impact of Carolina North.** Given that some jobs will be moving from the main campus to Carolina North, the impact is due to the net increase in demand. Further detail is provided in the *LOS Document*. These projections are inputs to the fiscal model.

It should be noted that for the indirect impacts, “Other Orange County” reflects development in Orange County outside the Towns of Chapel Hill and Carrboro, and the total impact on Orange County is the sum of Other Orange County, a portion of Chapel Hill (96 percent; 4 percent is assumed located in Durham County), and all of Carrboro.

Figure 12. Scenario Comparisons: Projected Net Increases (15-Year Period) RESIDENTIAL

RESIDENTIAL	SCENARIO 1		SCENARIO 2	
	Direct	Indirect	Direct	Indirect
Housing Units				
Carolina North [1]				
University Housing (multifamily)	250		125	
Private Housing (multifamily)	167		250	
Total Units	417		375	
Estimated Indirect Housing Units by Jurisdiction [2]				
Chapel Hill		1,468		1,468
Carrboro		309		309
Other Orange County [3]		193		193
Orange County [4]		1,911		1,911
Population [5]				
Chapel Hill	751	3,024	675	3,024
Carrboro	0	743	0	743
Other Orange County	0	464		464
Orange County [4]	751	4,110	675	4,110
Public School Students [6]				
CHCCS	29	608	26	608
OCS	0	58	0	58

[1] UNC; located in Chapel Hill and Orange County

[2] The Chesapeake Group; distribution based on current patterns of residences of UNC employees as reported by UNC.

[3] Outside Towns of Chapel Hill and Carrboro

[4] For Indirect impact, 4 percent of total Chapel Hill population is assumed to be outside of Orange County.

[5] Based on average household size by type from Chapel Hill and U.S. Census; see Appendix

[6] Based on student generation rates by type of housing unit from Orange County and TischlerBise; see Appendix.

For example, for Carolina North Scenario 1, the formula is number of units (417 multifamily) x .07 students per multifamily unit = 29 students

Figure 13. Scenario Comparisons: Projected Net Increases (15-Year Period): NONRESIDENTIAL

NONRESIDENTIAL	SCENARIO 1		SCENARIO 2	
	Direct	Indirect	Direct	Indirect
Projected Total Jobs at Carolina North [1]				
University	2,725		2,725	
Corporate Office Jobs	2,100		2,100	
Retail Jobs	333		333	
TOTAL On-Site	5,158		5,158	
Existing UNC Jobs Anticipated to Move to CN	1,567		1,567	
Projected Direct New Jobs at Carolina North [2]	3,591		3,591	
Projected Indirect New Jobs (in Region) [3]		5,027		5,027
Estimated Jobs in Study Jurisdictions				
Chapel Hill		1,106		1,106
Carrboro		251		251
Other Orange County		251		251
Orange County [4]		1,564		1,564

[1] UNC; located in Chapel Hill and Orange County.

[2] Total on-site jobs (5,158) minus relocated jobs (1,567) = Net new jobs (3,591)

[3] The Chesapeake Group; distribution based on current development patterns

[4] For Indirect impact, 4 percent of total Chapel Hill employment is assumed to be outside of Orange County.

Further detail on each scenario is provided in the *LOS Document*.

The two development programs for the direct impact scenarios were provided by UNC. TischlerBise developed projections of demand factors such as population and student enrollment. Assumptions for indirect development were provided as part of the Economic Impact Analysis conducted by The Chesapeake Group. The Economic Impact provided estimates of regionwide indirect impacts that include jurisdictions beyond the scope of this study. Assumptions about future impacts on the study jurisdictions are based on current distributions of impacts from UNC, as currently reported by UNC.

It is noted that the indirect portion of the analysis relies on the assumption that future conditions will mirror current conditions. Obviously, this may not be the case. For example, if housing is not available in the Town of Chapel Hill at price points or type desired by new employees based at Carolina North and/or travel behavior and options change substantially, a larger share of these employees may choose to live in unincorporated Orange County—or outside of the study jurisdictions entirely. These changed assumptions can be tested in subsequent analyses by UNC using the Fiscal Impact Model provided to UNC as part of this assignment. These “what if” scenarios can be examined with the model developed by TischlerBise for this project.

IV. APPROACH AND MAJOR ASSUMPTIONS

A fiscal impact analysis determines whether revenues generated by new growth are sufficient to cover the resulting costs for service and facility demands placed on a jurisdiction. In this case, the new growth is development of Phase I of Carolina North and the indirect impacts that occur due to the development. This fiscal impact analysis primarily uses an average cost method to capture the incremental costs due to the development. Because the development itself may not be large enough to trigger the need for certain facilities and accompanying operating impacts, the analysis employs an average cost approach. There are exceptions to this, where a case study-marginal methodology is used, which takes site or geographic-specific information into consideration (for example, Chapel Hill Fire services).

Service level, revenue, and cost assumptions are based on TischlerBise's on-site interviews and follow-up discussions with staff, detailed analysis of Fiscal Year 2008 budgets, and other relevant documents. Additionally, our local fiscal experience with North Carolina jurisdictions as well as our national experience conducting over 600 fiscal impact analyses was beneficial.

The assumptions outlined in the *LOS Document* (issued as an Appendix under separate cover) are utilized along with the development projections to calculate the fiscal impact on the jurisdictions over a 15-year projection period. Calculations are performed using the customized fiscal impact model designed specifically by TischlerBise for this assignment.¹

Major assumptions regarding the fiscal impact methodology are noted below. (See the *Level of Service (LOS) Document*, issued under separate cover, for further detail.)

GENERAL APPROACH

For this analysis, all costs and revenues directly attributable to the new development—by type of development—are included. Personnel and other operating costs are projected, as are expenditures for capital improvements. For each jurisdiction, the General Fund is modeled—including both school districts in the County analysis—as well as capital funds. Enterprise funds (e.g., utilities) are not included in this analysis as they are assumed to be self-sufficient. This type of analysis is done for all three jurisdictions.

¹ A general note on rounding: Calculations throughout this report are based on an analysis conducted using Excel software. Results are discussed in the report using one-and two-digit places (in most cases), which represent rounded figures. However, in some cases the analysis itself uses figures carried to their ultimate decimal places; therefore the sums and products generated in the analysis may not equal the sum or product if the reader replicates the calculation with the factors shown in the report (due to rounding).

Some costs and revenues are not expected to be impacted by demographic changes, and are therefore considered “fixed” in this analysis. To determine those costs and revenues that should be considered fixed, TischlerBise reviewed FY2008 budgets and available supporting documentation as well as interviewed staff. Based on this review and follow-up review by the jurisdictions, assumptions were developed and are documented in the *LOS Document* issued as an appendix to this report.

For services and facilities affected by nonresidential development, the impacts of Phase I Carolina North are projected based on **net new** nonresidential demand in most cases. Given that some jobs will be moving from the main UNC campus to Carolina North, the impacts—and resulting costs—are due to the net increase in demand. Exceptions to this, such as services that are directly related to development activity, are based on total onsite employment and are noted in the *LOS Document* where appropriate.

All **capital** costs included in the analysis are shown as Pay-Go. By showing Pay-Go funding for all capital improvements, the true costs of capital impacts are depicted. If bond financed were assumed, debt service would continue beyond the last projection year and therefore would not adequately be captured in this analysis.

LEVEL OF SERVICE

The cost projections are based on a “snapshot approach” in which it is assumed the current levels of service, as funded in the respective jurisdictional budget and as provided in current capital facilities, will continue through the 15-year analysis period. The current demand base data was used to calculate unit costs and service level thresholds. Examples of demand base data include population, dwelling units, employment by type, vehicle trips, etc. In summary, the “snapshot” approach does not attempt to speculate about how levels of service, costs, revenues, policies, and other factors will change over time. Instead, it evaluates the fiscal impact of new growth to each of the jurisdictions as conducted under the current budgets used in this analysis. The *LOS Document* provides further detail on levels of service assumptions.

REVENUE STRUCTURE

Revenues are projected assuming that the current revenue structures and rates for each jurisdiction, as defined in the respective FY2008 budgets, will not change during the analysis period.

INFLATION RATE

The rate of inflation is assumed to be zero throughout the projection period, and cost and revenue projections are in constant 2008 dollars. This assumption is in accord with budget data and avoids the difficulty of speculating on inflation rates and their effect on cost and revenue categories. It also avoids the problem of interpreting results expressed in inflated dollars over an extended period of time. In general, including inflation is complicated and unpredictable. This is particularly the case given that some costs, such as salaries, increase at different rates than other operating and capital costs such as contractual and building construction costs. And these costs, in turn, almost always increase in variation to the appreciation of real estate, thus affecting the revenue side of the equation. Using constant dollars avoids these issues.

NON-FISCAL EVALUATIONS

It should be noted that while a fiscal impact analysis is an important consideration in planning and policy decisions, it is only one of several issues that should be considered. Environmental and social 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 future development.

ORGANIZATION OF THE REPORT

Fiscal impact analysis results are presented for the **direct** impacts due to Phase I of Carolina North for each jurisdiction in turn. Then the fiscal impact results of the **indirect** impacts are presented for each jurisdiction. Finally, the direct and indirect results are **combined** and presented for each jurisdiction. The report concludes with detail on projected revenues and expenditures for each jurisdiction for all scenarios evaluated.

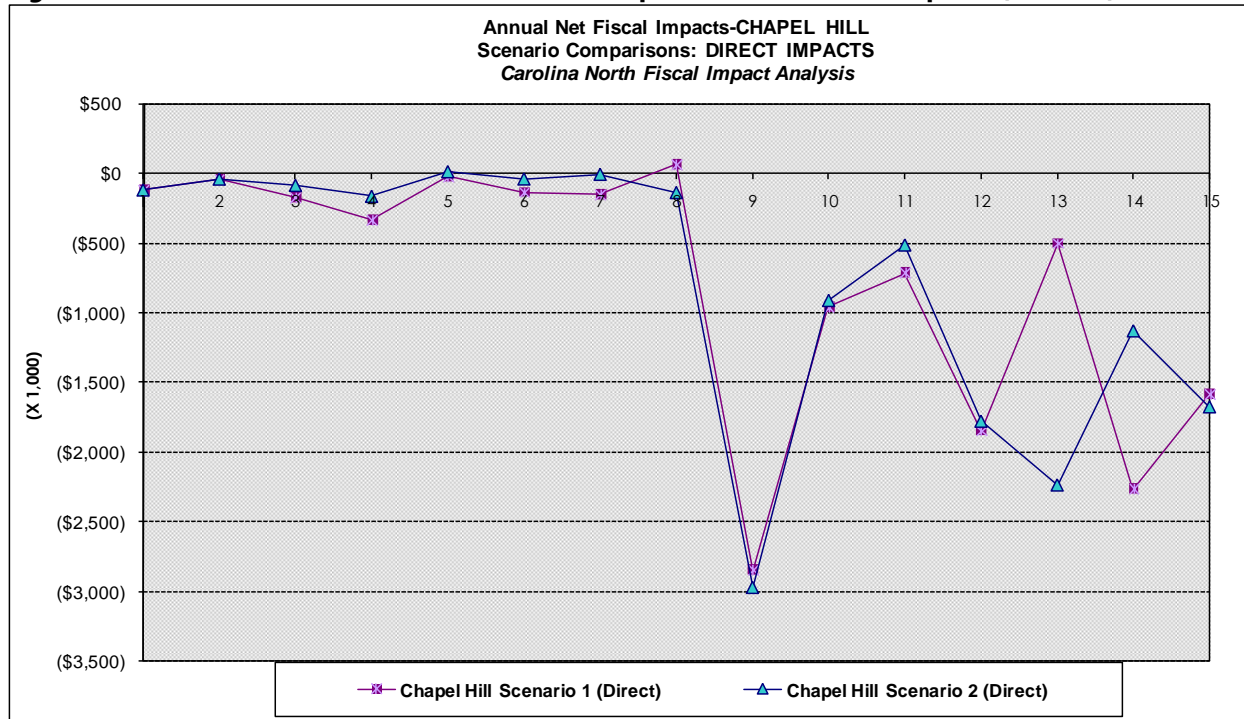
V. FISCAL IMPACT ANALYSIS RESULTS: DIRECT IMPACTS

Fiscal impact results for the **direct** impact scenarios are provided in this chapter for each jurisdiction. (The results for the indirect scenarios are shown in chapter 6 and the results for the combined impact are provided in chapter 7.) As noted elsewhere, the direct scenarios are based on the development assumptions outlined in chapter 3 and further described in the *LOS Document*. The fiscal impact results are presented in two ways. First, **annual** net results are discussed and show the fiscal impacts from one year to the next. Then, **cumulative** results are shown reflecting total revenues, expenditures, and net fiscal results over the 15-year development timeframe.

TOWN OF CHAPEL HILL

Annual Net Results: Direct Impacts

The **annual** (year to year) net results to the Town of Chapel Hill for each scenario over the study time horizon are shown in Figure 14. Each year reflects total revenues generated minus total expenditures incurred in the same year. Both capital and operating costs are included for all General Fund expenditures as well as expenditures for the Transit Fund. By showing the results annually, the magnitude, rate of change, and timeline of net deficits and/or net surpluses can be observed over time. The “bumpy” nature of the annual results during particular years represents the opening of capital facilities and/or major operating costs being incurred. Data points above the \$0 line represent annual surpluses; points below the \$0 line represent annual deficits. Figures are shown in \$1,000s.

Figure 14. Annual Net Fiscal Results – Town of Chapel Hill Direct Fiscal Impacts (x\$1,000)

As shown in Figure 14, both direct scenarios produce annual net deficits to the Town over the projection period in each year with a few exceptions in the early years where results are essentially fiscally neutral. The costs required for operations and capital infrastructure to serve the new development after year 9 in each scenario, assuming current levels of service, are not adequately funded with revenues generated by the development.

It is assumed that the Town of Chapel Hill Fire Department will serve Carolina North. The annual net deficits in the later years, starting with the large net deficit in year 9, are due mainly to construction and staffing of a new Fire station to serve Carolina North. A new Fire station and engine company is assumed at 50 percent buildout of Phase I of Carolina North and an aerial truck and staffing is assumed at 75 percent buildout. This accounts for the net deficits in the latter half on the projection period.

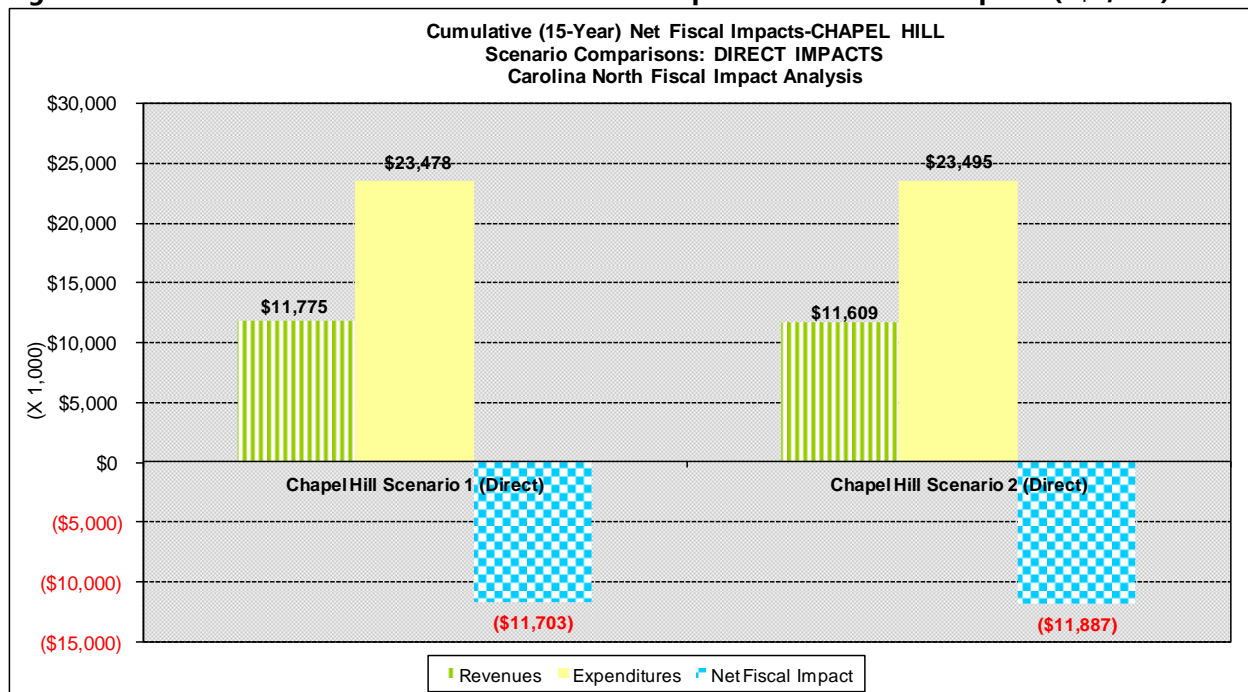
Other major Town expenditures such as Police and Roads are not assumed to be significantly affected by the development of Carolina North. It is assumed that University of North Carolina Public Safety will provide police services at Carolina North and no new Town Roads will be built and maintained by the Town at Carolina North. However, additional costs are projected for Town Police and Road maintenance as a result of increased traffic on Town roads due to Carolina North, thus impacting Town Police traffic patrol and Town road maintenance on existing streets.

Also included in the results is the projected cost for Transit. The overall results for Chapel Hill reflect revenue from the Town of Carrboro per the current cost sharing agreement. The results do not include anticipated contributions from UNC.

Cumulative Net Results: Direct Impacts

Cumulative figures reflect total revenues generated minus operating and capital expenditures over the 15-year development timeframe. Cumulative revenues, expenditures and net results are shown in Figure 15. Figures are shown in \$1,000s.

Figure 15. Cumulative Net Fiscal Results – Town of Chapel Hill Direct Fiscal Impacts (x\$1,000)



Cumulative net fiscal deficits are generated to the Town of Chapel Hill in both direct scenarios with both scenarios generating similar results. The cumulative net deficit totals approximately \$11.7 million in Scenario 1 and \$11.9 million in Scenario 2. On an average annual basis, the net deficits are approximately \$780,000 and \$792,000 per year for Scenarios 1 and 2 respectively.

Over the 15-year period, Phase I of the Carolina North development as reflected in the two scenarios is projected to generate approximately \$11.8 million revenues compared to \$23.5 million in costs. Thus, cumulative revenues are insufficient to cover the costs under these two

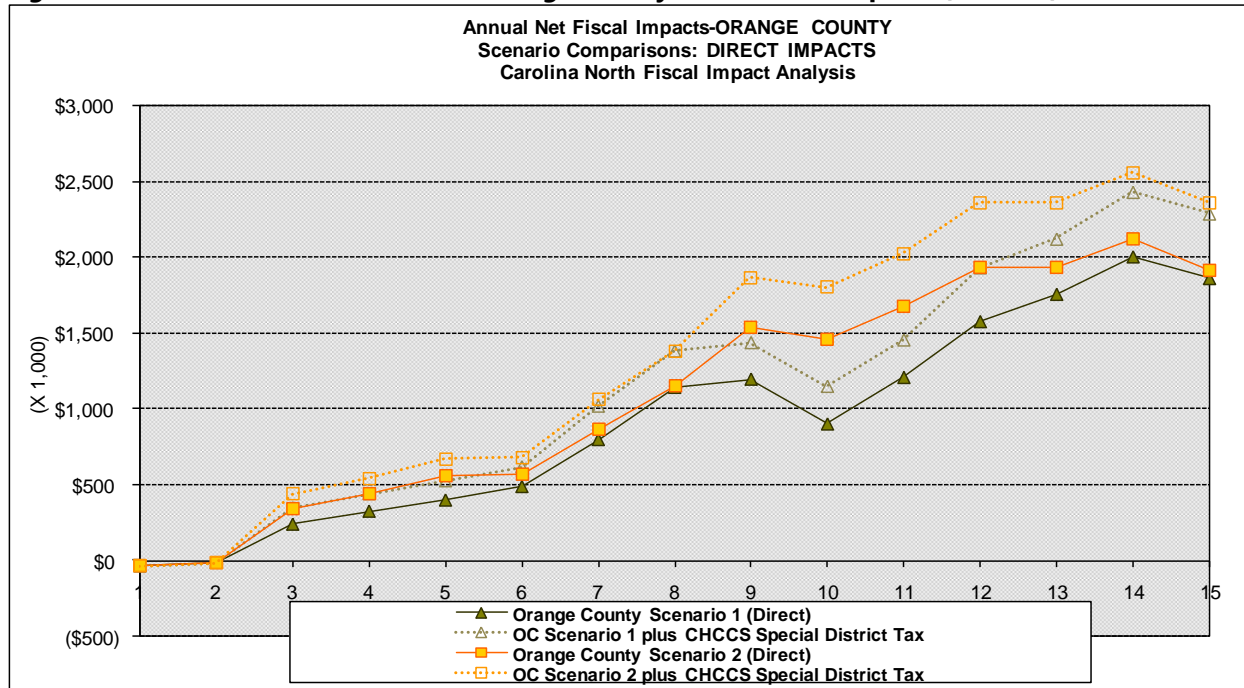
scenarios. This is due mainly to the need for a new Fire station and accompanying operating costs, which represents over 85 percent of the \$11.72 million cumulative net deficit. Also, the results include the full projected cost to the Transit Fund as a result of Carolina North with offsetting revenue assumed from the Town of Carrboro per the current cost sharing formula but does not include anticipated revenue from UNC.

ORANGE COUNTY

Annual Net Results: Direct Impacts

As was done for the Town of Chapel Hill, *annual* (year to year) net results to the County for each scenario over the study time horizon are provided and shown in Figure 16. Each year reflects total revenues generated minus total expenditures incurred in the same year. Both capital and operating costs are included for all General Fund expenditures—including the two School Districts (Orange County Schools and Chapel Hill-Carrboro City Schools). Because the County reports the Chapel Hill-Carrboro City Schools (CHCCS) special district (ad valorem) tax separately from the General Fund, it is shown separately on the figures in this section.

By showing the results annually, the magnitude, rate of change, and timeline of net deficits and/or net surpluses can be observed over time. The “bumpy” nature of the annual results during particular years represents the opening of capital facilities and/or major operating costs being incurred. Data points above the \$0 line represent annual surpluses; points below the \$0 line represent annual deficits. Figures are shown in \$1,000s.

Figure 16. Annual Net Fiscal Results – Orange County Direct Fiscal Impacts (x\$1,000)

As shown, both direct impact scenarios produce net surpluses to Orange County in each year of the 15-year projection period except the first two years where minimal net deficits are generated. This is due to the revenue structure of the County where the main revenue sources from property and sales taxes aggregate from one year to the next. Projected operating and capital expenditures to serve the assumed development programs reflected in Scenarios 1 and 2 are less than the projected revenue. This is due in part to the type of development assumed—more nonresidential than residential. And the residential development assumed at Carolina North is multifamily units, which have lower student generation rates than other types of residential, particularly in the Chapel Hill-Carrboro School District. This results in relatively low school costs and by extension less overall County costs given that schools' expenditures comprise approximately 50 percent of the County's FY08 General Fund budget.

Cumulative Net Results: Direct Impacts

Cumulative figures reflect total revenues generated minus operating and capital expenditures over the 15-year development timeframe to the County. Cumulative revenues, expenditures and net results are shown in Figure 17. Figure 18 provides cumulative results with the Chapel Hill-Carrboro City Schools (CHCCS) Special District Tax included. Figures are shown in \$1,000s.

Figure 17. Cumulative Net Fiscal Results – Orange County Direct Fiscal Impacts (x\$1,000)

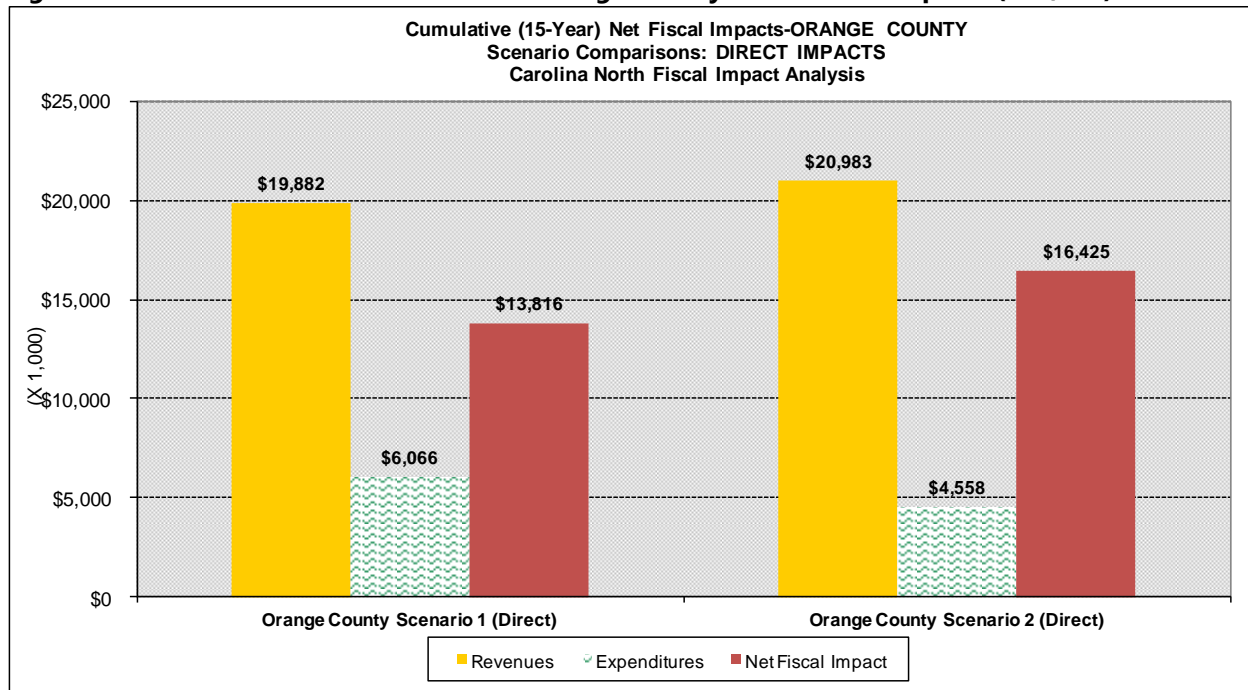
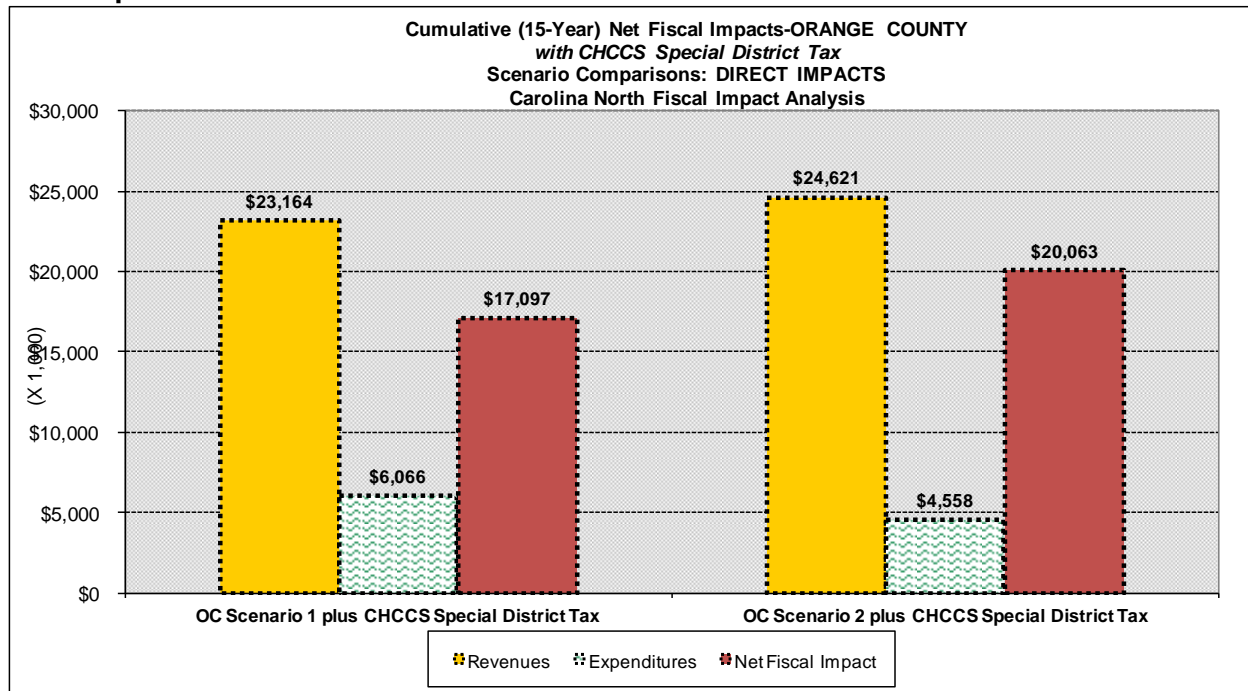


Figure 18. Cumulative Net Fiscal Results – Orange County Direct Fiscal Impacts (x\$1,000) with CHCCS Special District Tax



Cumulative net fiscal surpluses are generated to Orange County in both direct scenarios. The cumulative net surplus totals approximately \$13.8 million in Scenario 1 and \$16.4 million in Scenario 2. On an average annual basis, net surpluses of approximately \$921,000 to \$1.1 million per year are generated depending on the scenario. When the CHCCS Special District Tax is added in, the cumulative net surpluses increase to \$17 million (average annual \$1.1 million) for Scenario 1 and \$20.1 million (average annual \$1.3 million) for Scenario 2.

Over the 15-year period, Phase I of the Carolina North development (as reflected in the two scenarios) is projected to generate approximately \$20 to \$21 million in revenues (and \$23 to \$24 million with the Special District Tax) compared to \$6.1 and \$4.6 million in costs in Scenario 1 and 2 respectively. Thus, cumulative revenues are sufficient to cover the costs under each of these two scenarios. Overall, this is due to the main revenue sources—property and sales taxes—that are aggregating in nature and relatively low school costs.

There is a notable difference in projected expenditures between Scenario 1 and 2. This is due primarily to fewer housing units assumed in Scenario 2, which results in fewer projected public school students and therefore lower school operating and capital costs. Fewer housing units also means fewer people projected overall and therefore lower costs for those services that are driven in part by population growth (e.g., Sheriff). Also, differences are due to assumptions on the timing of development. Scenario 2 assumes that housing is developed later than Scenario 1

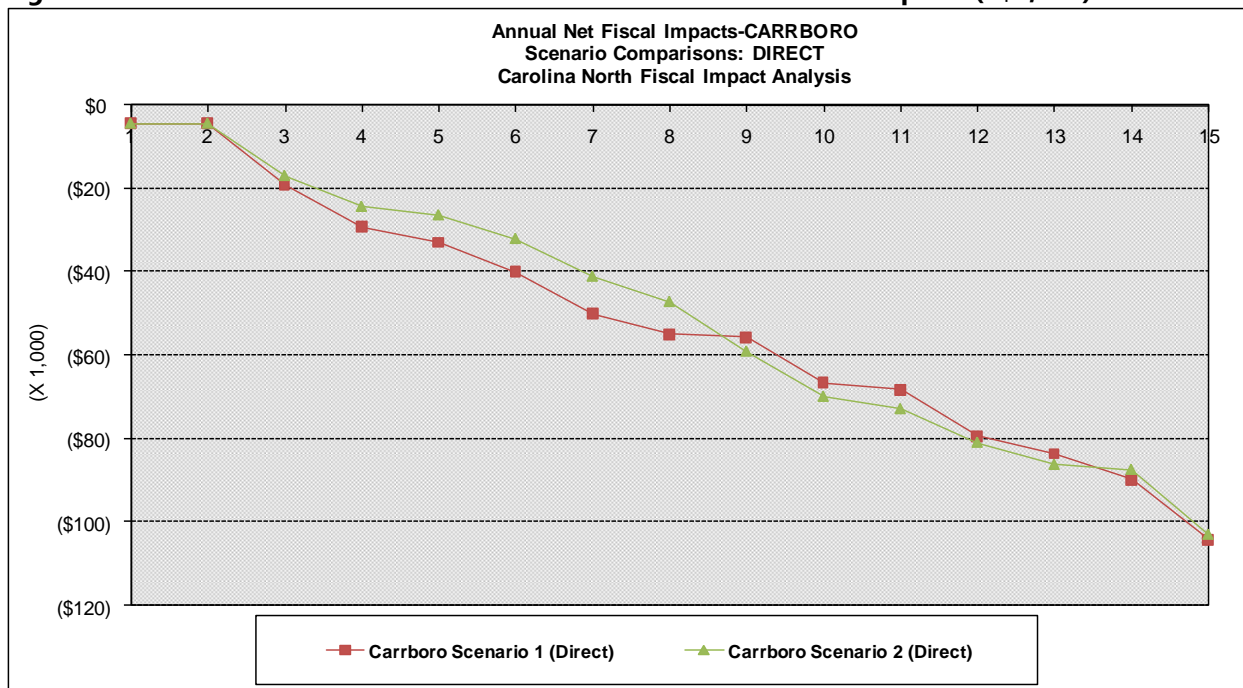
during the 15-year period, therefore cumulative school operating costs are lower for Scenario 2. School operating costs are annual costs and begin accruing from the first year students are projected. Therefore an earlier occurrence of school expenditures increases the cumulative costs to the County.

As noted above, the County reports Chapel Hill-Carrboro City Schools (CHCCS) special district tax revenue separately and is shown delineated from General Fund results above. This revenue source, an ad valorem tax assessed on all taxable property within the CHCCS district to be used for CHCCS school purposes, is projected at \$3.2 million for Scenario 1 and \$3.6 million for Scenario 2.

TOWN OF CARRBORO

Annual (year to year) net results to the Town of Carrboro for each scenario over the study time horizon are provided and shown in Figure 19. Each year reflects total revenues generated minus total expenditures incurred in the same year. By showing the results annually, the magnitude, rate of change, and timeline of net deficits and/or net surpluses can be observed over time. The “bumpy” nature of the annual results during particular years represents the opening of capital facilities and/or major operating costs being incurred. Data points above the \$0 line represent annual surpluses; points below the \$0 line represent annual deficits. Figures are shown in \$1,000s.

Figure 19. Annual Net Fiscal Results – Town of Carrboro Direct Fiscal Impacts (x\$1,000)

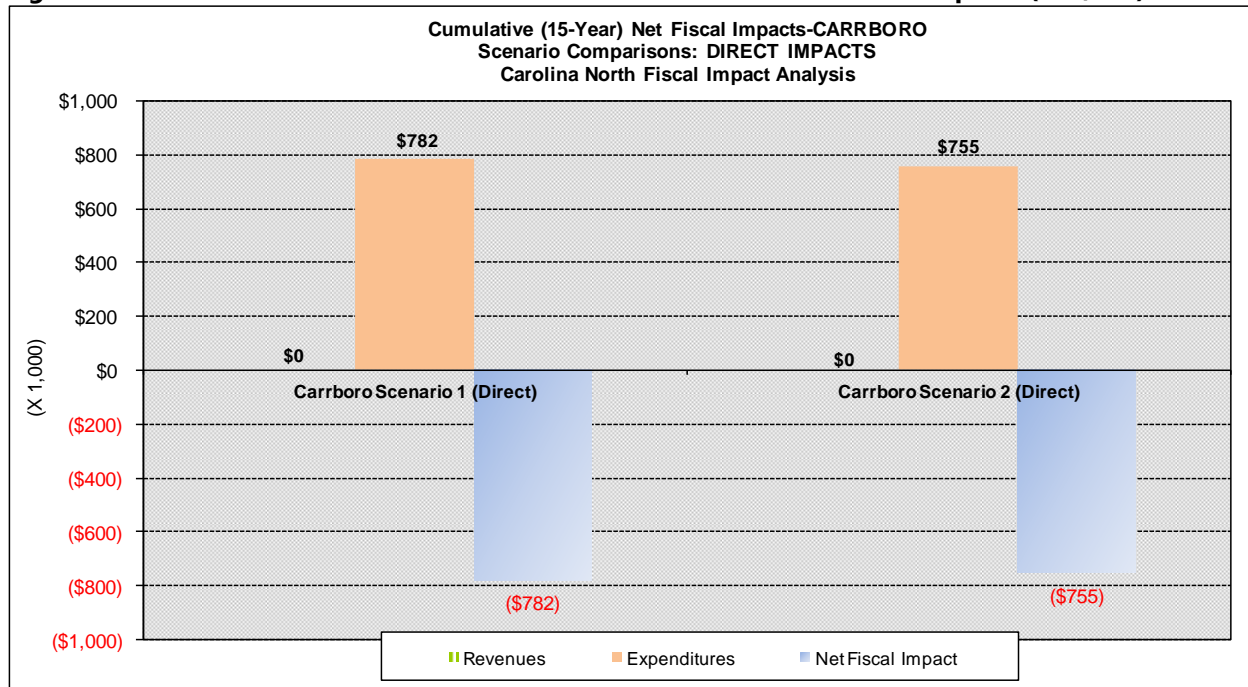


As shown, both direct impact scenarios produce net deficits to the Town of Carrboro in each year of the 15-year projection period. No direct revenues are generated in Carrboro from Carolina North but Transit costs are incurred due to the partner agreement among the Towns of Chapel Hill and Carrboro and UNC. The Town of Carrboro's share of the costs is 15.84 percent, based on FY07-08 partner cost sharing formula.

Cumulative Net Results: Direct Impacts

Cumulative figures reflect total revenues generated minus operating and capital expenditures over the 15-year development timeframe to the Town of Carrboro. Cumulative revenues, expenditures and net results are shown in Figure 20. Figures are shown in \$1,000s.

Figure 20. Cumulative Net Fiscal Results – Town of Carrboro Direct Fiscal Impacts (x\$1,000)



As shown, cumulative net deficits to the Town of Carrboro are \$782,000 for Scenario 1 and \$755,000 for Scenario 2. Again, this is due to direct Transit costs with no direct commensurate revenues from Carolina North in the Town of Carrboro.

VI. FISCAL IMPACT ANALYSIS RESULTS: INDIRECT IMPACTS

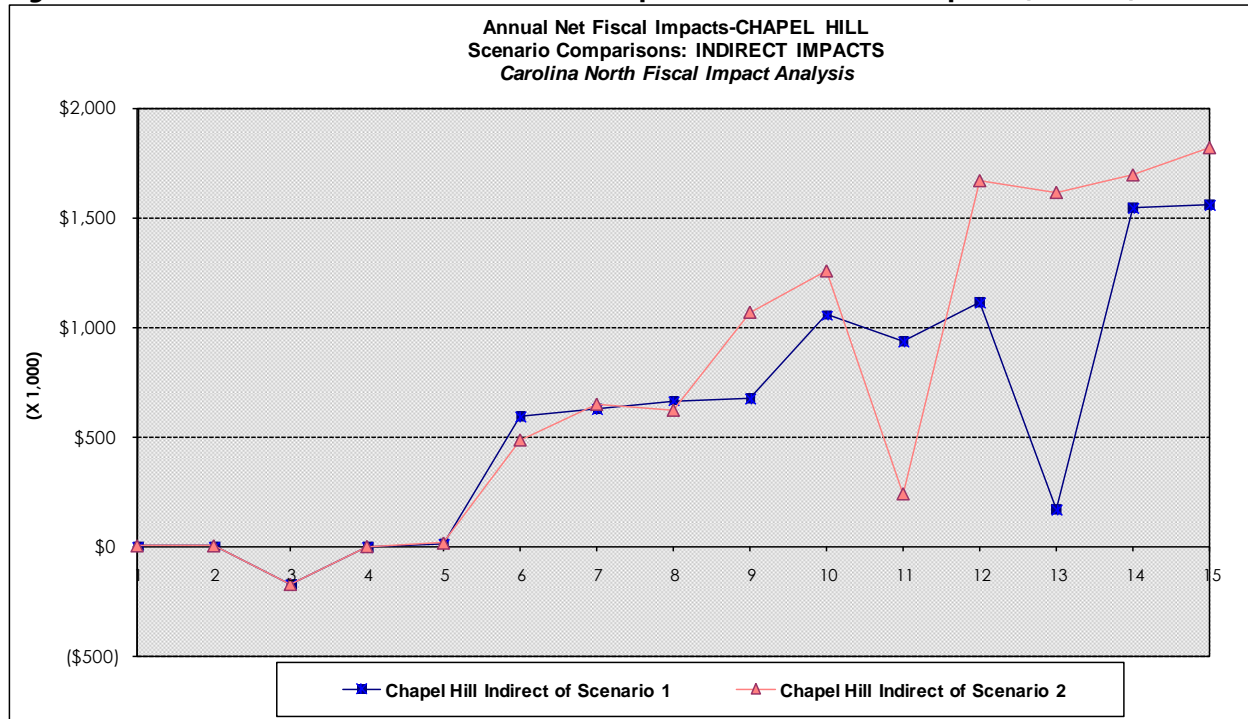
This chapter presents fiscal impact results for the **indirect** impact scenarios for each jurisdiction—Town of Chapel Hill, Orange County, and Town of Carrboro. As noted elsewhere, the indirect impacts are based on the land use assumptions as summarized in chapter 4 and detailed in the *LOS Document*. Fiscal impacts of the projected indirect growth were modeled for each of the direct scenarios discussed above. They are labeled as “Indirect of Scenario 1,” for example.² The results are presented in two ways. First, *annual* net results are discussed and show the fiscal impacts from one year to the next. Then, *cumulative* results are shown reflecting total revenues, expenditures, and net fiscal results over the 15-year development timeframe.

TOWN OF CHAPEL HILL

Annual Net Results: Indirect Impacts

The *annual* (year to year) net results of indirect impacts to the Town for each scenario over the study time horizon are shown in Figure 21. Each year reflects total revenues generated minus total expenditures incurred in the same year. As is done for the direct impacts, both capital and operating costs are included for all General Fund expenditures as well as expenditures for the Transit Fund. By showing the results annually, the magnitude, rate of change, and timeline of net deficits and/or net surpluses can be observed over time. The “bumpy” nature of the annual results during particular years represents the opening of capital facilities and/or major operating costs being incurred. Data points above the \$0 line represent annual surpluses; points below the \$0 line represent annual deficits. Figures are shown in \$1,000s.

²In the fiscal impact model, the indirect scenarios are identified as Scenario 3 and 4.

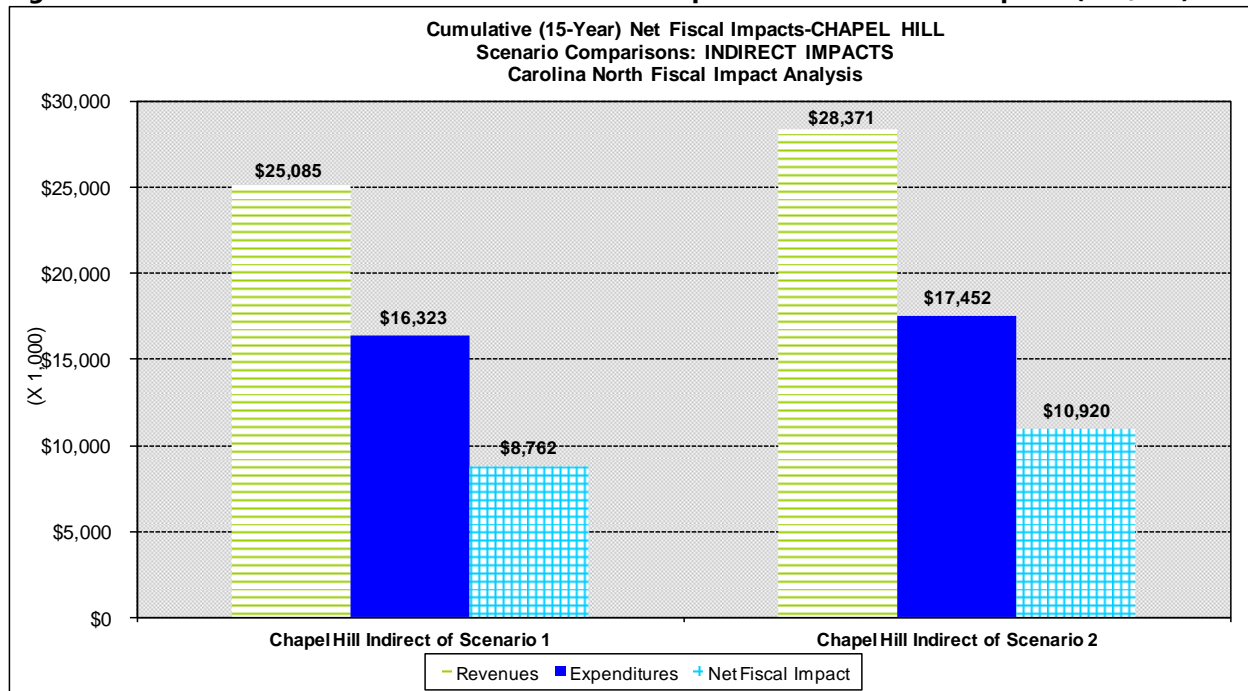
Figure 21. Annual Net Fiscal Results – Town of Chapel Hill Indirect Fiscal Impacts (x\$1,000)

As shown in Figure 21, indirect impacts generally produce annual net surpluses to the Town over the projection period in each year with a few exceptions in the early years where net deficits or fiscally neutral results are produced. The initial results are due to the spin-off development assumed to start in year 3 with costs generated and insufficient revenues to cover those expenditures. Subsequent years are projected to generate sufficient revenues to cover the related costs. The noticeable decreases in net surpluses in years 11 and 13 are due to projected capital expenditures for parks. Consistent with the approach taken for the direct scenarios, included in the results is the projected cost for the Transit Fund of which a portion is supported by the Town of Carrboro per the current cost sharing formula.

Cumulative Net Results: Indirect Impacts

Cumulative figures reflect total revenues generated minus operating and capital expenditures to the Town of Chapel Hill over the 15-year development timeframe. Cumulative revenues, expenditures and net results are shown in Figure 22. Figures are shown in \$1,000s.

Figure 22. Cumulative Net Fiscal Results – Town of Chapel Hill Indirect Fiscal Impacts (x\$1,000)



Cumulative net fiscal surpluses are generated to the Town of Chapel Hill from indirect impacts of both scenarios. The cumulative net surplus totals approximately \$8.7 million in Scenario 1 and \$10.9 million in Scenario 2. The average annual net surplus is approximately \$584,000 to \$728,000 per year depending on the scenario. On a cumulative basis, revenues are sufficient to cover the costs generated by indirect impacts under the assumptions for these two scenarios with the second scenario producing slightly better results.

Scenario 2 assumes earlier nonresidential development and therefore earlier indirect impacts that are generating annual tax revenues as well as annual costs. Because these impacts occur earlier, all revenues and costs are higher in Scenario 2 than Scenario 1. As with the direct scenarios, the results include the projected cost to the Transit Fund with offsetting contributions assumed from Carrboro per the current cost sharing formula. No revenue is assumed from UNC.

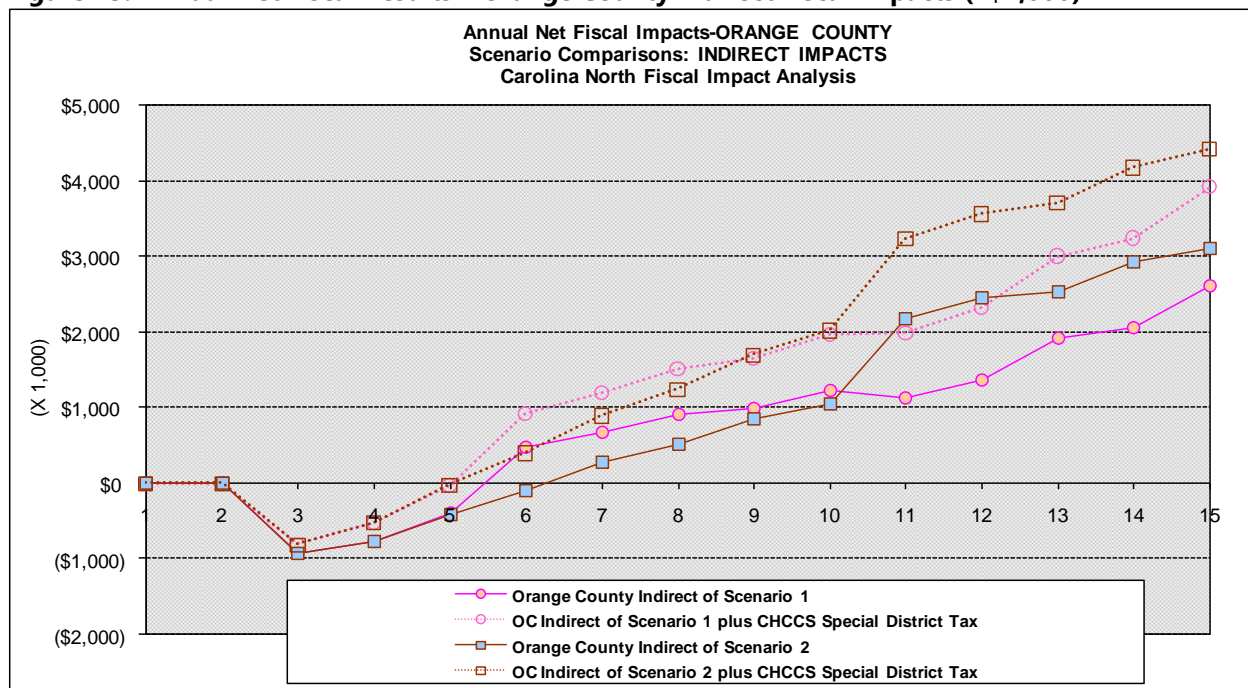
ORANGE COUNTY

Annual Net Results: Indirect Impacts

As was done for the Town of Chapel Hill, *annual* (year to year) net results of indirect impacts to Orange County for each scenario over the study time horizon are provided and shown in Figure 23. Each year reflects total revenues generated minus total expenditures incurred in the same year. Both capital and operating costs are included for all General Fund expenditures—including the two School Districts. As noted above, because the County reports the Chapel Hill-Carrboro City Schools (CHCCS) special district (ad valorem) tax separately from the General Fund, it is shown separately on the figures in this section.

By showing the results annually, the magnitude, rate of change, and timeline of net deficits and/or net surpluses can be observed over time. The “bumpy” nature of the annual results during particular years represents the opening of capital facilities and/or major operating costs being incurred. Data points above the \$0 line represent annual surpluses; points below the \$0 line represent annual deficits. Figures are shown in \$1,000s.

Figure 23. Annual Net Fiscal Results – Orange County Indirect Fiscal Impacts (x\$1,000)



As shown, both indirect impact scenarios produce net surpluses starting around year 6 of the 15-year projection period. The initial years generate net deficits due to the demand for services, in particular schools operating and capital, without commensurate revenues. In the later years, revenues from property and sales taxes accrue annually and are sufficient to cover the projected costs. Results are better for the indirect impacts of Scenario 2 due to the earlier timing of spin-off development, which allows for aggregation of property and sales tax revenues.

Cumulative Net Results: Indirect Impacts

Cumulative figures for indirect impacts to Orange County reflect total revenues generated minus operating and capital expenditures over the 15-year development timeframe. Cumulative revenues, expenditures and net results are shown in Figure 24 and 25 (with CHCCS Special District Tax). Figures are shown in \$1,000s.

Figure 24. Cumulative Net Fiscal Results – Orange County Indirect Fiscal Impacts (x\$1,000)

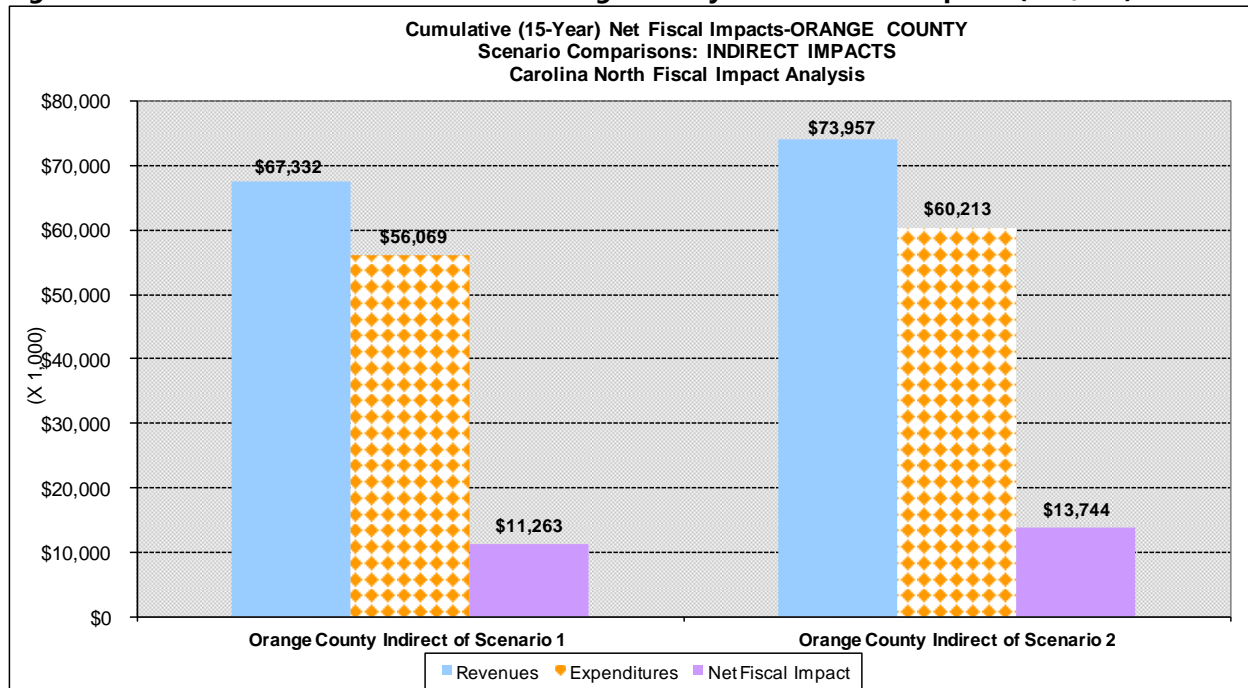
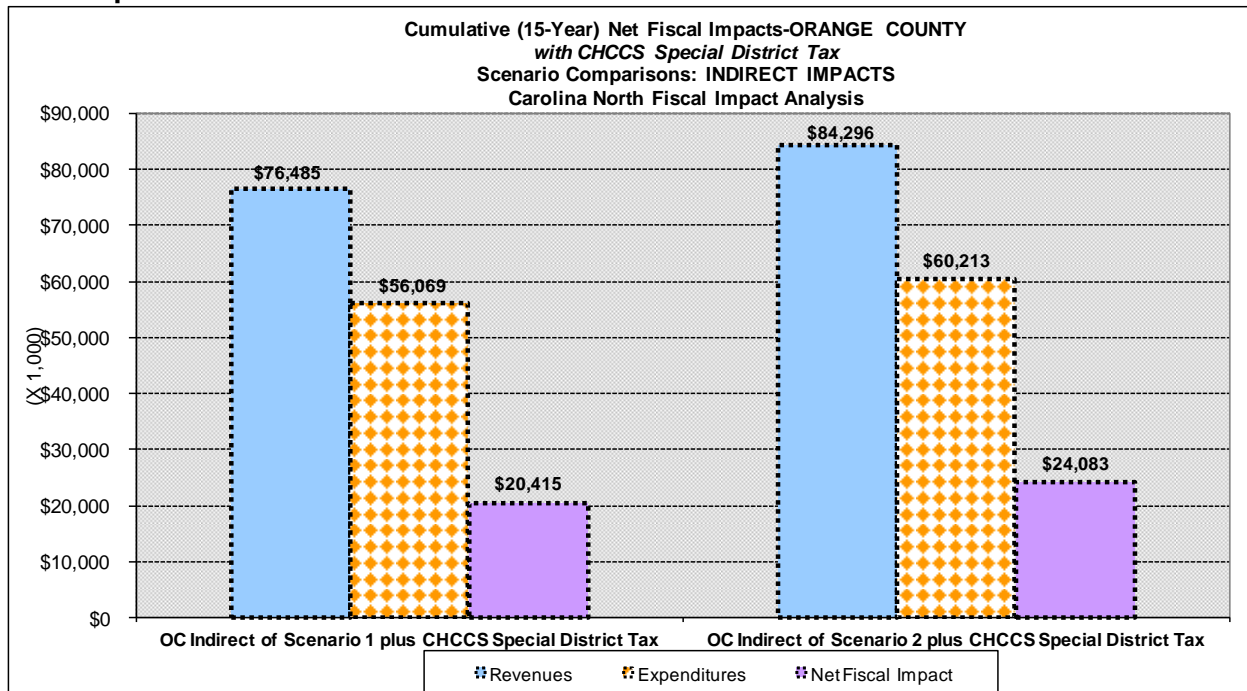


Figure 25. Cumulative Net Fiscal Results – Orange County Indirect Fiscal Impacts (x\$1,000) with CHCCS Special District Tax



Cumulative net fiscal surpluses are generated to Orange County in both indirect scenarios. The cumulative net surplus totals approximately \$11.3 million in Scenario 1 and \$13.7 million in Scenario 2. Average annual surpluses are approximately \$751,000 to \$916,000 depending on scenario. With the CHCCS Special District Tax added in, the net surpluses increase to \$20.4 million (\$1.4 million average annual) for Scenario 1 and \$24.1 million (\$1.6 million average annual) for Scenario 2. As shown, cumulative revenues are sufficient to cover the costs to serve the projected indirect impacts under the assumptions of each scenario.

Overall, this is due to the main revenue sources—property and sales taxes—that are aggregating in nature. Revenues and expenditures are higher overall in Scenario 2. This is primarily because of a faster absorption of nonresidential development assumed in Scenario 2, which results in earlier indirect growth that in turn triggers annual operating costs and annual revenues earlier than Scenario 1. This results in larger cumulative figures in Scenario 2.

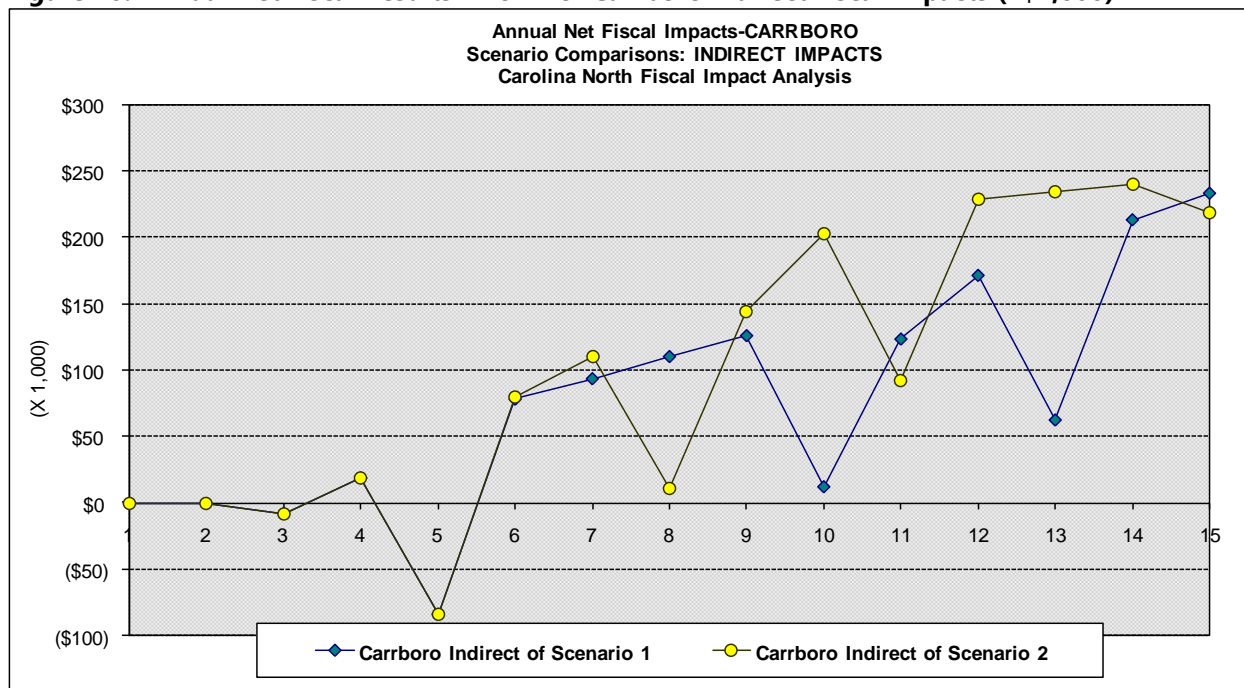
As noted above, the County reports CHCCS special district tax revenue separately and is shown delineated from General Fund results above. Projected cumulative revenues from this ad valorem tax assessed on all taxable property within the CHCCS district to be used for CHCCS school purposes, are \$9.2 million for Scenario 1 and \$10.3 million for Scenario 2.

TOWN OF CARRBORO

Annual Net Results: Indirect Impacts

The *annual* (year to year) net results of indirect impacts to the Town of Carrboro for each scenario over the study time horizon are shown in Figure 26. Each year reflects total revenues generated minus total expenditures incurred in the same year. Both capital and operating costs are included for all General Fund expenditures. By showing the results annually, the magnitude, rate of change, and timeline of net deficits and/or net surpluses can be observed over time. The “bumpy” nature of the annual results during particular years represents the opening of capital facilities and/or major operating costs being incurred. Data points above the \$0 line represent annual surpluses; points below the \$0 line represent annual deficits. Figures are shown in \$1,000s.

Figure 26. Annual Net Fiscal Results – Town of Carrboro Indirect Fiscal Impacts (x\$1,000)



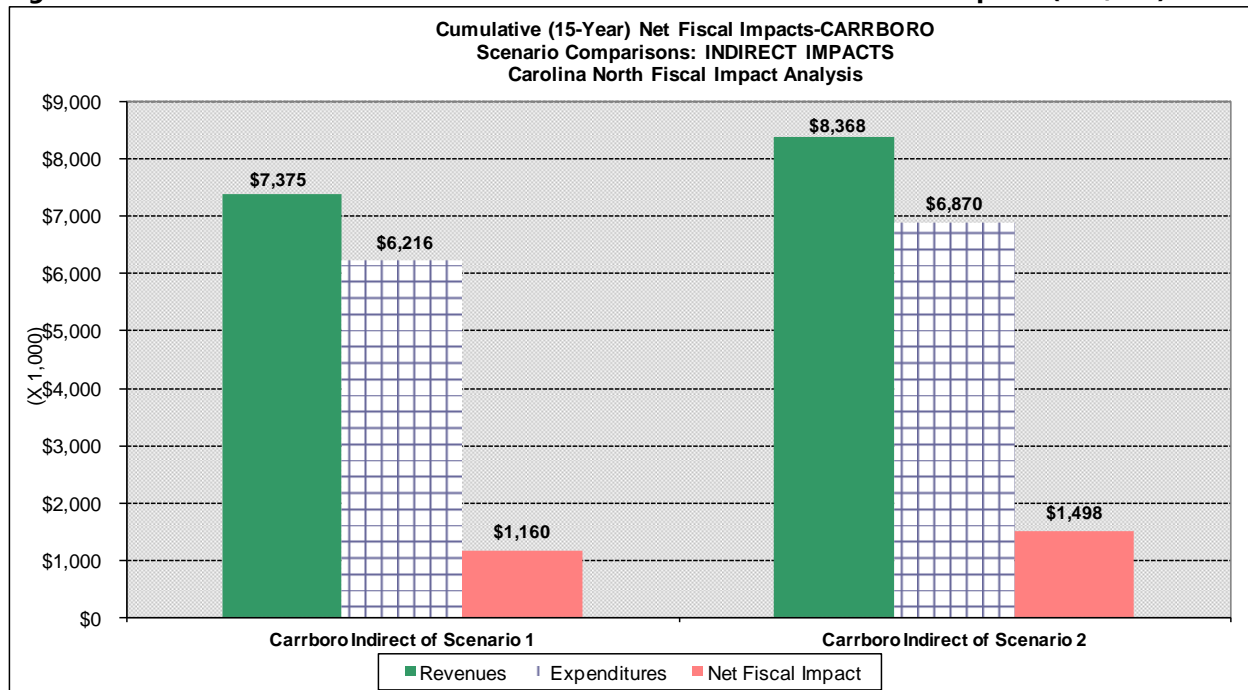
As shown in Figure 26, indirect scenarios generally produce annual net surpluses to the Town over the projection period in each year with a few exceptions. In the early years, results are essentially fiscally neutral. In year 5, a net deficit is generated due to capital expenditures for recreation and parks. Starting in year 6, development is projected to generate sufficient revenues to cover related costs. The decreases in net surpluses in subsequent years for both scenarios are due to projected capital expenditures for parks.

As noted in the Town of Chapel Hill discussions, total Transit expenditures are projected in the Town of Chapel Hill's results with the Town of Carrboro's cost (reflected in the Carrboro results) assumed as revenue to the Town of Chapel Hill.

Cumulative Net Results: Indirect Impacts

Cumulative figures for the Town of Carrboro indirect impacts reflect total revenues generated minus operating and capital expenditures over the 15-year development timeframe. Cumulative revenues, expenditures and net results are shown in Figure 27. Figures are shown in \$1,000s.

Figure 27. Cumulative Net Fiscal Results – Town of Carrboro Indirect Fiscal Impacts (x\$1,000)



Cumulative net fiscal surpluses are generated to the Town of Carrboro from indirect impacts in both scenarios. The cumulative net surplus totals approximately \$1.2 million in Scenario 1 and \$1.5 million in Scenario 2. Average annual net surpluses are approximately \$77,000 to \$100,000 depending on scenario. On a cumulative basis, revenues are sufficient to cover the costs generated by indirect impacts under the assumptions for these two scenarios with the second scenario producing slightly better results. Surpluses are generated due to the aggregating nature of property and sales taxes, with Scenario 2 assuming earlier nonresidential development and therefore earlier spin-off impacts that are generating annual tax revenues that are sufficient to cover the costs generated.

As noted above and in the Town of Chapel Hill discussions, projected Transit expenditures are included in the Town of Carrboro's results. Carrboro's share of this cost as part of the current partnership agreement with Town of Chapel Hill and UNC is approximately \$650,000 (cumulative over 15 years).

VII. FISCAL IMPACT RESULTS: COMBINED DIRECT AND INDIRECT RESULTS

This section provides the **combined** net fiscal results for direct and indirect impacts for each jurisdiction in turn. Cumulative results only are shown, which provides the overall results when combining direct and indirect impacts. Both scenarios are shown for each jurisdiction.

TOWN OF CHAPEL HILL

Cumulative Net Results: Combined Impacts

Cumulative figures reflect total revenues generated minus operating and capital expenditures over the 15-year development timeframe. Cumulative revenues, expenditures and net results are shown in Figure 28 (Scenario 1) and Figure 29 (Scenario 2). Results from the direct scenarios are shown on the left and results from indirect impacts are shown in the middle. The combined results are shown on the right side of the figure. Figures are shown in \$1,000s.

Figure 28. Cumulative Net Fiscal Results – Town of Chapel Hill Combined Fiscal Impacts: SCENARIO 1 (x\$1,000)

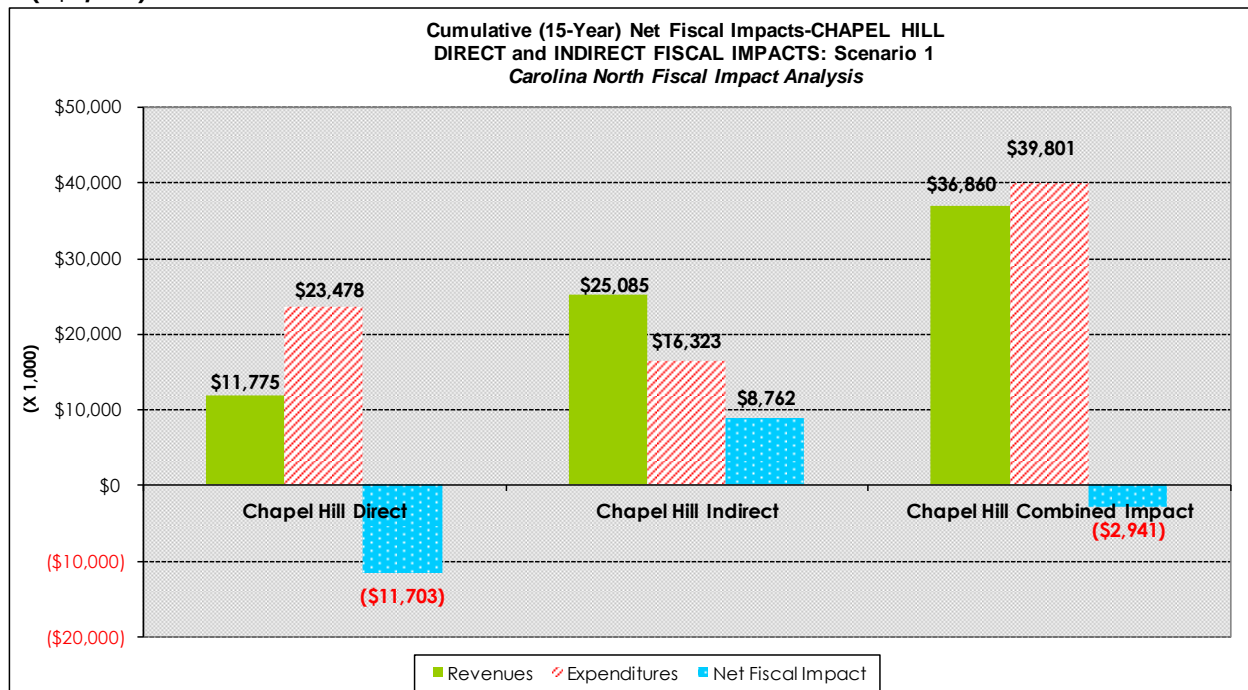


Figure 29. Cumulative Net Fiscal Results – Town of Chapel Hill Combined Fiscal Impacts: SCENARIO 2 (x\$1,000)

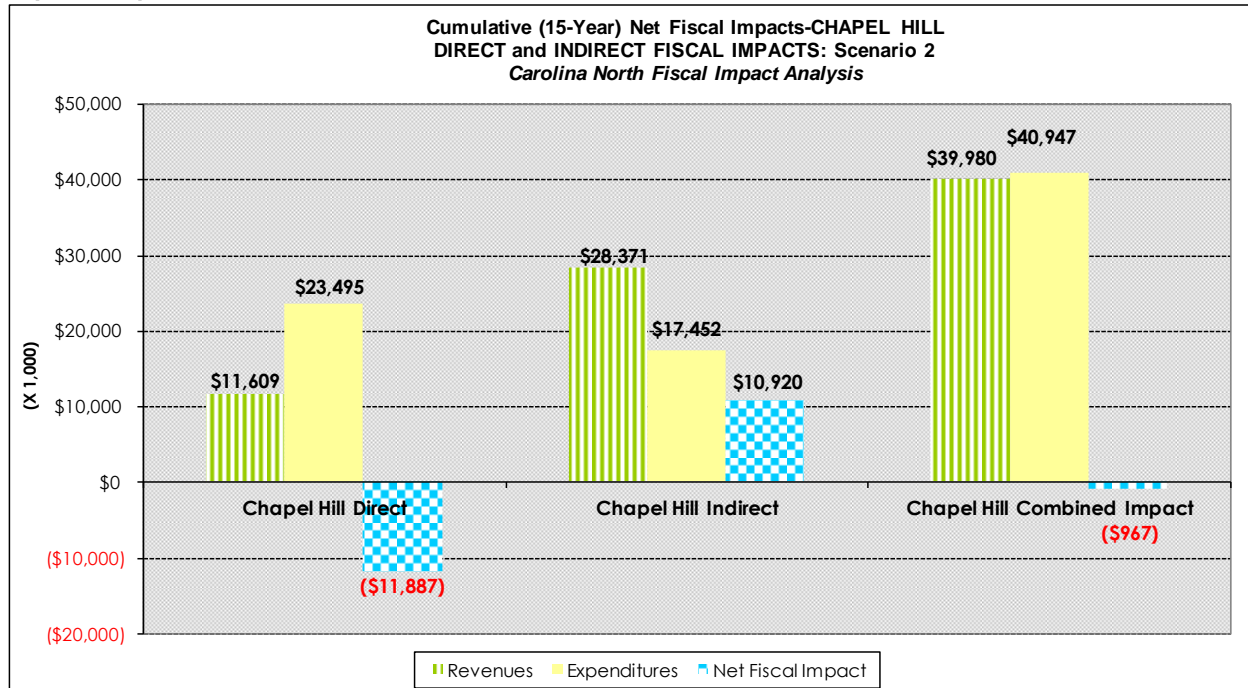


Figure 30. Cumulative Net Fiscal Results Detail – Town of Chapel Hill Combined Fiscal Impacts (x\$1,000)

Cumulative Net Fiscal Results - Scenario Comparisons (x\$1,000)

CHAPEL HILL

Carolina North Fiscal Impact Analysis

Category	DIRECT SCENARIOS		INDIRECT SCENARIOS		TOTAL DIRECT AND INDIRECT	
	Scenario 1.	Scenario 2.	Indirect of Scenario 1	Indirect of Scenario 2	Scenario 1	Scenario 2
TOTAL REVENUES	\$11,775	\$11,609	\$25,085	\$28,371	\$36,860	\$39,980
Operating Expenditures	\$16,118	\$16,224	\$9,837	\$10,927	\$25,955	\$27,151
Capital Expenditures	\$7,360	\$7,271	\$6,487	\$6,525	\$13,846	\$13,796
TOTAL EXPENDITURES	\$23,478	\$23,495	\$16,323	\$17,452	\$39,801	\$40,947
NET FISCAL IMPACT	(\$11,703)	(\$11,887)	\$8,762	\$10,920	(\$2,941)	(\$967)
Average Annual	(\$780)	(\$792)	\$584	\$728	(\$196)	(\$64)

Combined cumulative net fiscal deficits are generated to the Town of Chapel Hill in both scenarios. The combined cumulative net deficit is approximately \$3 million in Scenario 1 and \$1 million in Scenario 2. Average annual net deficits are \$196,000 and \$64,000 for Scenarios 1 and 2 respectively.

As shown above, the direct impacts generate net deficits and indirect impacts generate net surpluses. The net deficits from the direct impact are due to the construction and staffing of a new Fire station. However, the net surpluses projected from indirect growth are not sufficient to offset the projected direct costs. Again, as noted previously, the results include contributions from the Town of Carrboro for Transit expenditures. Contributions from UNC are not assumed in this analysis.

ORANGE COUNTY

Cumulative Net Results: Combined Impacts

Cumulative figures reflect total revenues generated minus operating and capital expenditures over the 15-year development timeframe. Cumulative revenues, expenditures and net results are shown in Figure 31 and 32 (Scenario 1) and Figure 33 and 34 (Scenario 2). Results from the direct scenarios are shown on the left and results from indirect impacts are shown in the middle. The combined results are shown on the right side of the figure. Figures are shown in \$1,000s.

Figure 31. Cumulative Net Fiscal Results – Orange County Combined Fiscal Impacts: SCENARIO 1 (x\$1,000)

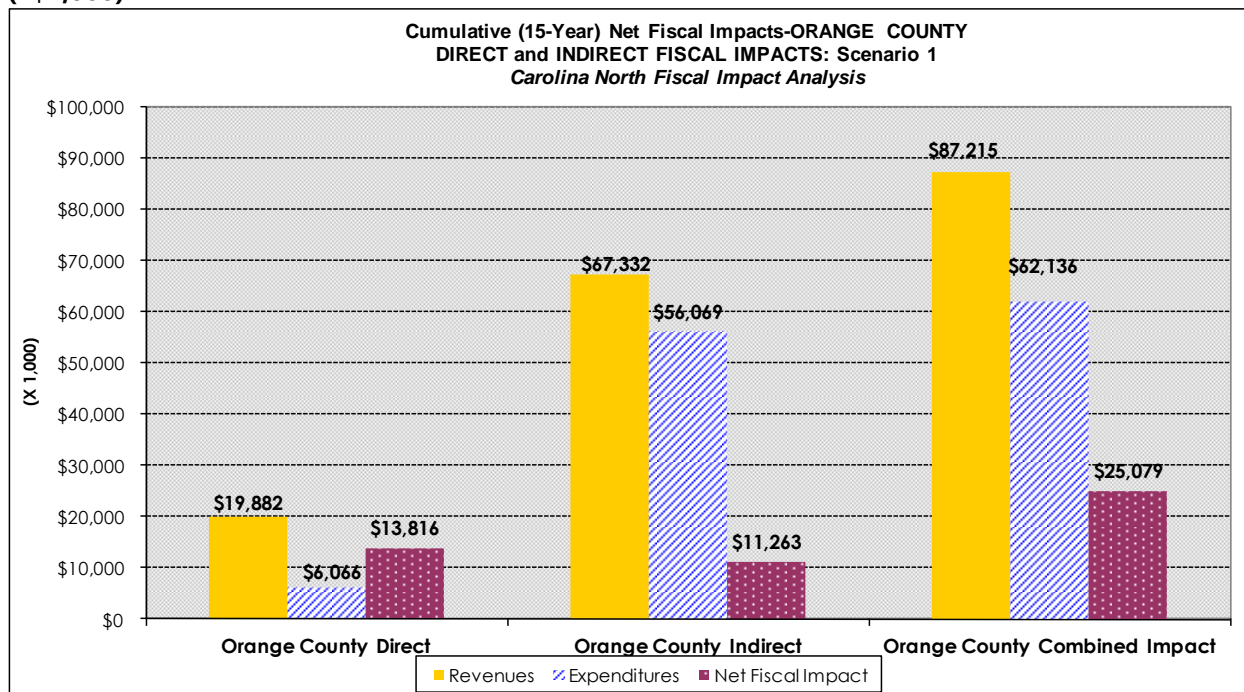


Figure 32. Cumulative Net Fiscal Results – Orange County Combined Fiscal Impacts with CHCCS Special District Tax: SCENARIO 1 (x\$1,000)

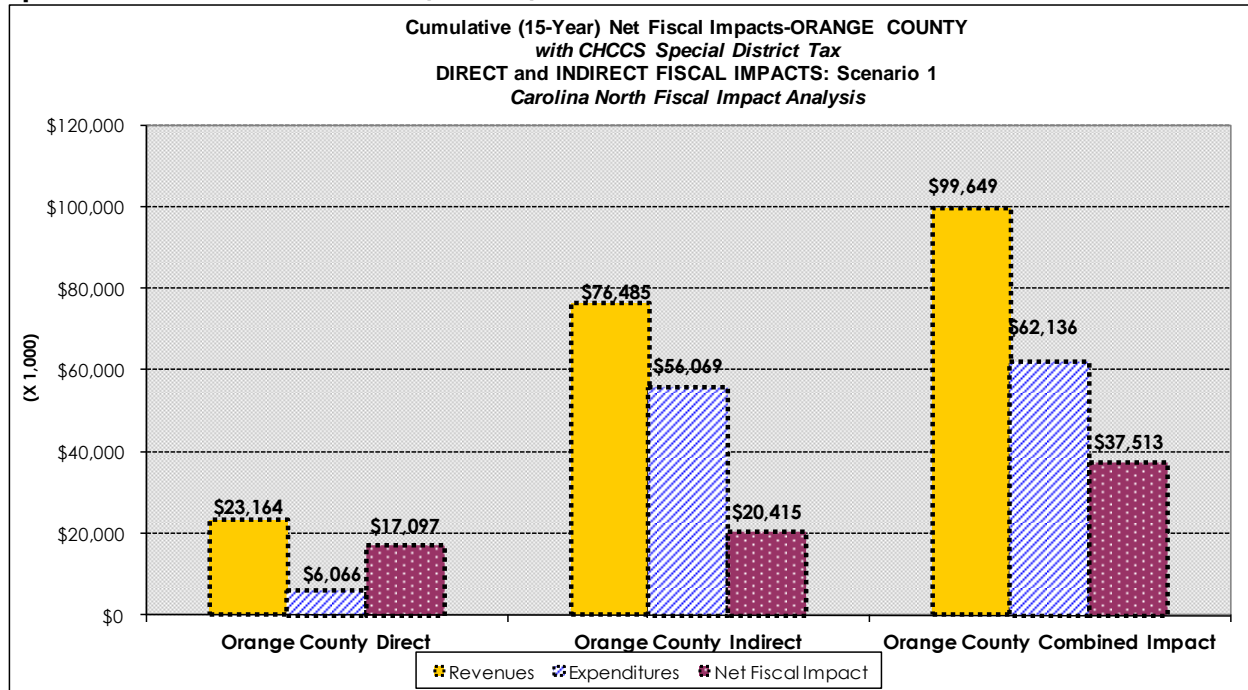


Figure 33. Cumulative Net Fiscal Results – Orange County Combined Fiscal Impacts: SCENARIO 2 (x\$1,000)

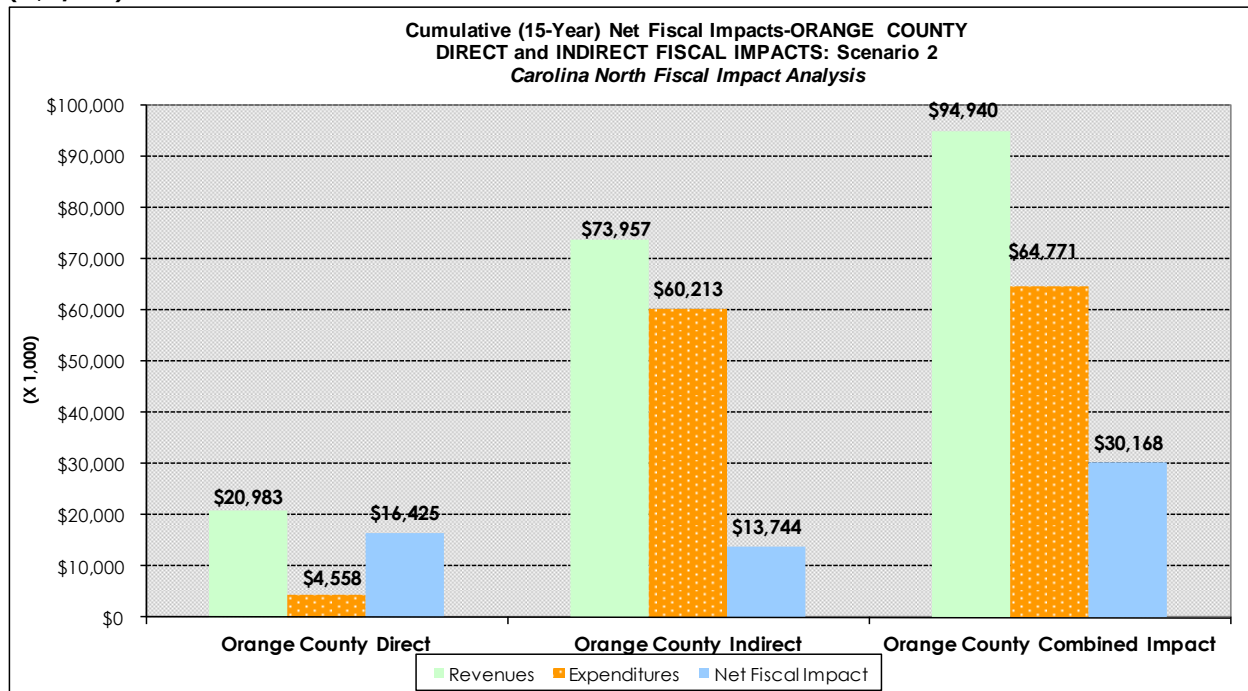


Figure 34. Cumulative Net Fiscal Results – Orange County Combined Fiscal Impacts with CHCCS Special District Tax: SCENARIO 2 (x\$1,000)

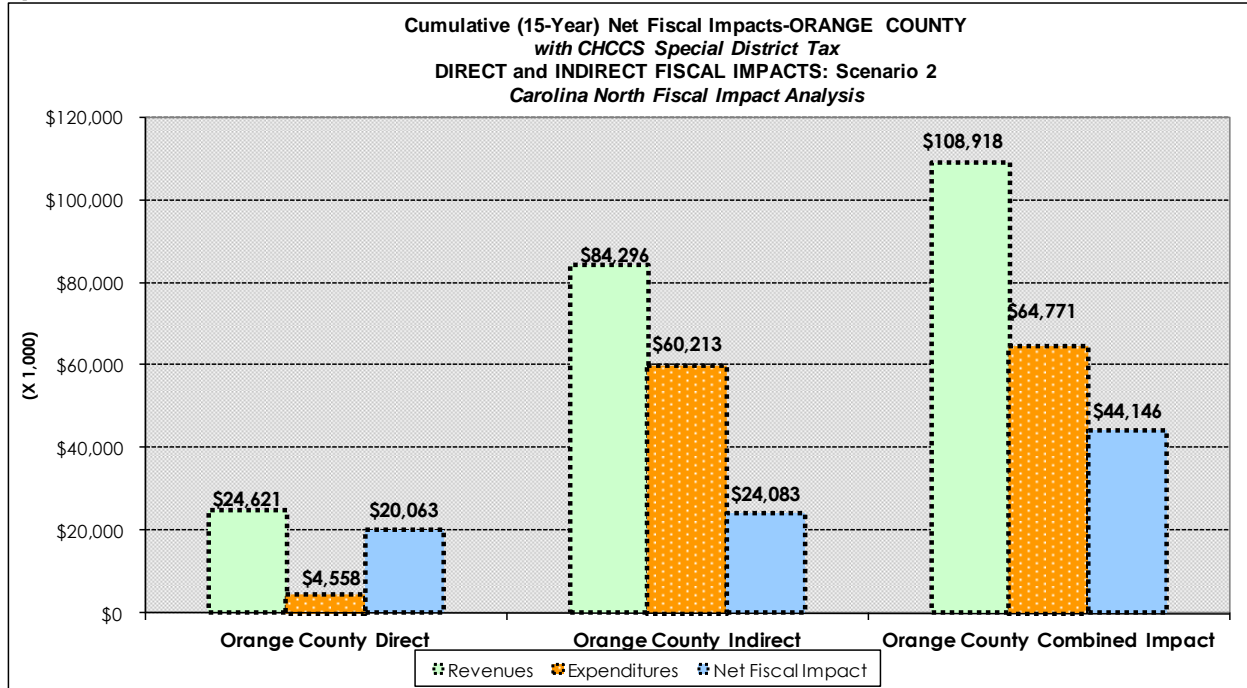


Figure 35. Cumulative Net Fiscal Results Detail – Orange County Combined Fiscal Impacts (x\$1,000)

Cumulative Net Fiscal Results - Scenario Comparisons (x\$1,000)

ORANGE COUNTY

Carolina North Fiscal Impact Analysis

Category	DIRECT SCENARIOS		INDIRECT SCENARIOS		TOTAL DIRECT AND INDIRECT	
	Scenario 1.	Scenario 2.	Indirect of Scenario 1	Indirect of Scenario 2	Scenario 1	Scenario 2
Operating Revenues	\$19,346	\$20,501	\$55,006	\$61,631	\$74,352	\$82,132
Capital Revenues	\$536	\$482	\$12,326	\$12,326	\$12,862	\$12,808
TOTAL REVENUES	\$19,882	\$20,983	\$67,332	\$73,957	\$87,215	\$94,940
Operating Expenditures	\$3,963	\$2,744	\$28,824	\$32,968	\$32,788	\$35,712
Capital Expenditures	\$2,103	\$1,815	\$27,245	\$27,245	\$29,348	\$29,060
TOTAL EXPENDITURES	\$6,066	\$4,558	\$56,069	\$60,213	\$62,136	\$64,771
NET FISCAL IMPACT	\$13,816	\$16,425	\$11,263	\$13,744	\$25,079	\$30,168
Average Annual	\$921	\$1,095	\$751	\$916	\$1,672	\$2,011
CHCCS Special District Tax	\$3,282	\$3,638	\$9,152	\$10,339	\$12,434	\$13,978
NET FISCAL IMPACT with Sp. Dist. Tax	\$17,097	\$20,063	\$20,415	\$24,083	\$37,513	\$44,146

Cumulative net fiscal surpluses are generated to Orange County. The combined cumulative net surplus is projected at approximately \$25 million in Scenario 1 and \$30 million in Scenario 2 with average annual results of \$1.7 and \$2 million for Scenarios 1 and 2 respectively. With the Special District Tax added in, the cumulative net surpluses increase to \$37 million (\$2.5 million average annual) in Scenario 1 and \$44 million (\$2.9 million average annual).

As shown, cumulative revenues are sufficient to cover the costs to serve the projected direct and indirect impacts under the assumptions of each scenario. As noted above, this is due to the main revenue sources—property and sales taxes—that are aggregating in nature. Revenues and expenditures are higher in Scenario 2. This is primarily because of a faster absorption of nonresidential development assumed in Scenario 2, which results in earlier spin-off development that in turn triggers annual operating costs and annual revenues earlier than Scenario 1. This results in larger cumulative figures in Scenario 2.

TOWN OF CARRBORO

Cumulative Net Results: Combined Impacts

Cumulative figures reflect total revenues generated minus operating and capital expenditures over the 15-year development timeframe. Cumulative revenues, expenditures and net results are shown in Figure 36 (Scenario 1) and Figure 37 (Scenario 2). Results from the direct scenarios are shown on the left and results from indirect impacts are shown in the middle. The combined results are shown on the right side of the figure. Figures are shown in \$1,000s.

Figure 36. Cumulative Net Fiscal Results – Town of Carrboro Combined Fiscal Impacts: SCENARIO 1 (x\$1,000)

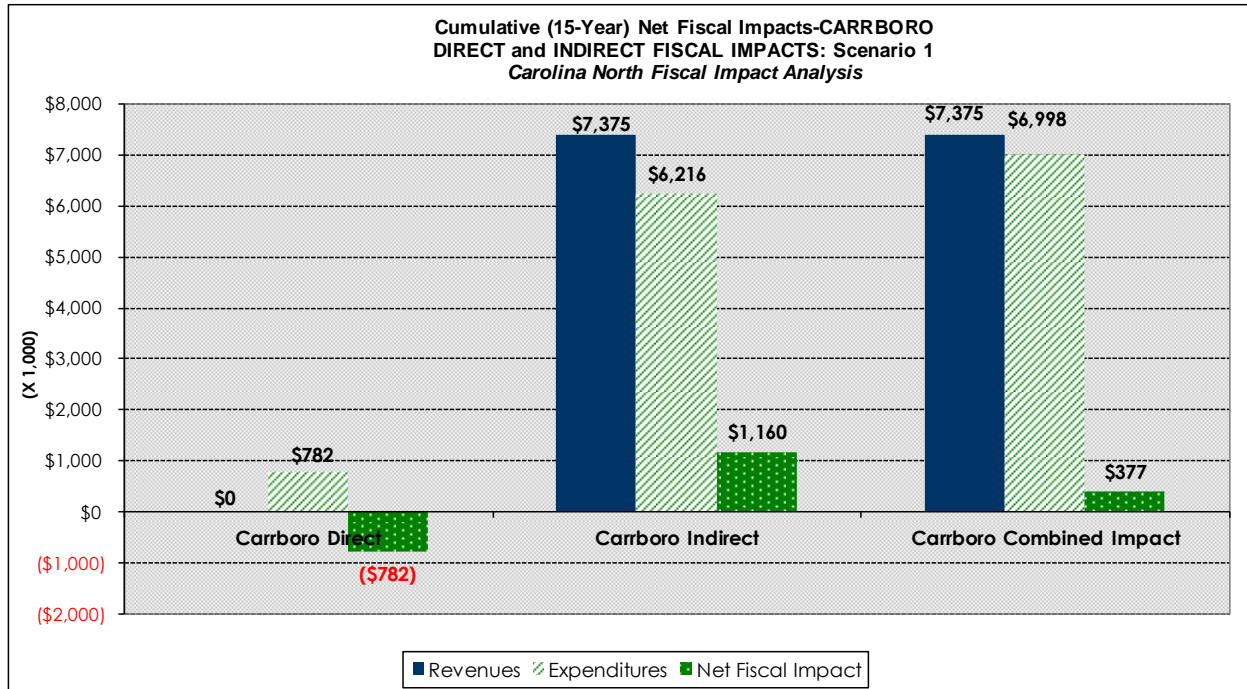


Figure 37. Cumulative Net Fiscal Results – Town of Carrboro Combined Fiscal Impacts: SCENARIO 2 (x\$1,000)

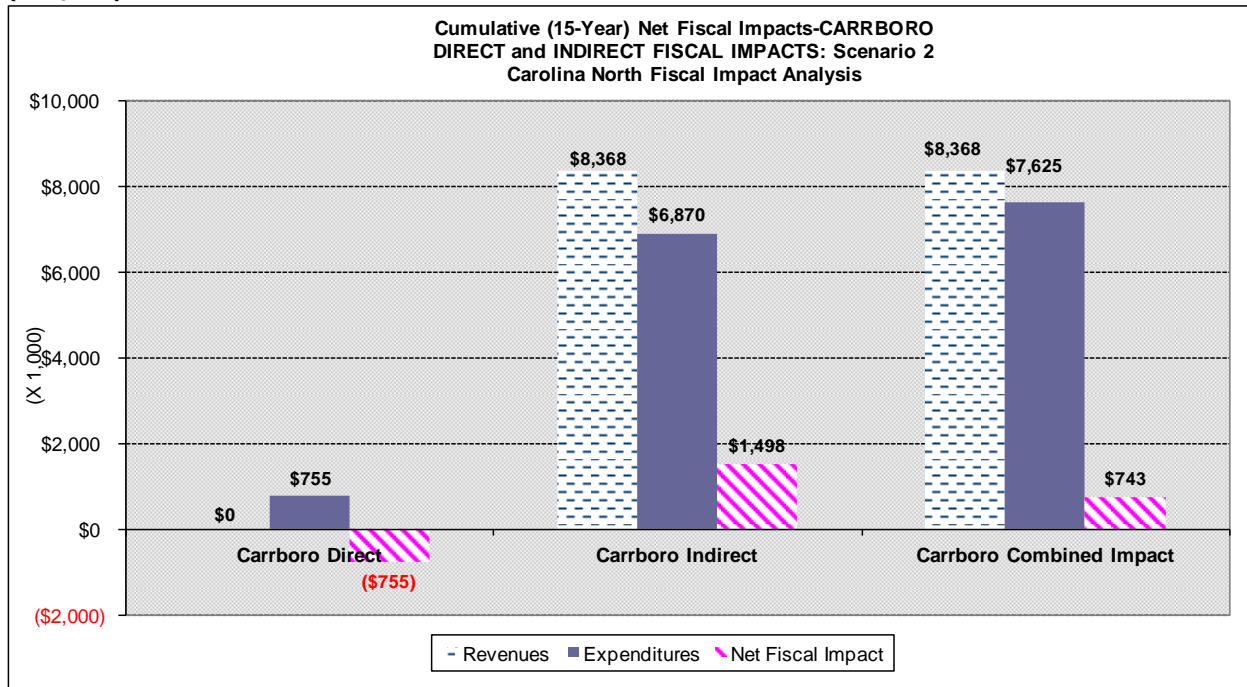


Figure 38. Cumulative Net Fiscal Results Detail – Town of Carrboro Combined Fiscal Impacts (x\$1,000)

Cumulative Net Fiscal Results - Scenario Comparisons (x\$1,000)

CARRBORO

Carolina North Fiscal Impact Analysis

Category	DIRECT SCENARIOS		INDIRECT SCENARIOS		TOTAL DIRECT AND INDIRECT	
	Scenario 1.	Scenario 2.	Indirect of Scenario 1	Indirect of Scenario 2	Scenario 1	Scenario 2
TOTAL REVENUES	\$0	\$0	\$7,375	\$8,368	\$7,375	\$8,368
Operating Expenditures	\$782	\$755	\$4,550	\$5,078	\$5,332	\$5,833
Capital Expenditures	\$0	\$0	\$1,666	\$1,792	\$1,666	\$1,792
TOTAL EXPENDITURES	\$782	\$755	\$6,216	\$6,870	\$6,998	\$7,625
NET FISCAL IMPACT	(\$782)	(\$755)	\$1,160	\$1,498	\$377	\$743
Average Annual	(\$52)	(\$50)	\$77	\$100	\$25	\$50

Cumulative net fiscal deficits are generated in the direct scenarios due to the Town of Carrboro's contribution for Transit expenditures as a result of Carolina North. Cumulative net surpluses are generated to the Town from indirect impacts in both scenarios. Combined, the cumulative net surplus totals approximately \$377,000 in Scenario 1 and \$743,000 in Scenario 2. Average annual net surpluses are approximately \$25,000 and \$50,000 depending on scenario. On a cumulative basis, revenues are sufficient to cover the costs generated by the impacts under the assumptions for these two scenarios with the second scenario producing better results. Surpluses are generated due to the aggregating nature of property and sales taxes, with Scenario 2 assuming earlier nonresidential development and therefore earlier spin-off impacts that are generating annual tax revenues.

VIII. REVENUE AND EXPENDITURE DETAIL

Further details on revenue and expenditure projections for each jurisdiction are presented and discussed in this chapter. For additional detail on projection methodologies and revenue components / assumptions, see the *LOS Document*, issued separately as an Appendix to this report.

As discussed in previous sections of this report, two direct impact scenarios were analyzed as well as the indirect impact from those two scenarios. Details on operating and capital revenues for each scenario and the combined results are presented below.

TOWN OF CHAPEL HILL REVENUES AND EXPENDITURES

Revenues and expenditures for the Town of Chapel Hill are detailed in this section for each scenario.

Revenues

All General Fund revenues are evaluated as well as the Transit Fund. Some revenues, such as “Interest on Investments” are not tied directly to growth and are therefore assumed to be fixed. (See the *LOS Document* issued under separate cover for assumptions.)

Projected *cumulative* revenues are shown for all scenarios as well as combined direct and indirect results. Results are shown below in Figure 39. In addition, at the bottom of the table, the average annual amount is shown to provide additional context. Revenues are shown in constant 2008 dollars and shown in thousands.

Figure 39. Cumulative Revenues – Town of Chapel Hill Scenario Comparisons (x\$1,000)

Category	DIRECT SCENARIOS				INDIRECT SCENARIOS				TOTAL DIRECT AND INDIRECT			
	Scenario 1.	%	Scenario 2.	%	Indirect of Scenario 1	%	Indirect of Scenario 2	%	Scenario 1	%	Scenario 2	%
Property Taxes	\$7,567	64%	\$8,390	72%	\$16,614	66%	\$18,758	66%	\$24,182	66%	\$27,148	68%
Other Taxes and Licenses	\$495	4%	\$471	4%	\$459	2%	\$509	2%	\$954	3%	\$979	2%
State-Shared Revenues	\$1,767	15%	\$797	7%	\$5,128	20%	\$5,884	21%	\$6,894	19%	\$6,681	17%
Licenses/Permits/Fines/Forfeitures	\$302	3%	\$288	2%	\$268	1%	\$293	1%	\$569	2%	\$581	1%
Grants	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%
Service Charges	\$78	1%	\$51	0%	\$257	1%	\$277	1%	\$335	1%	\$328	1%
Interest on Investments	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%
Other Revenue	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%
Interfund Transfers	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%
Appropriated Fund Balance	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%
Transit Fund	\$1,566	13%	\$1,613	14%	\$2,359	9%	\$2,651	9%	\$3,925	11%	\$4,264	11%
TOTAL	\$11,775	100%	\$11,609	100%	\$25,085	100%	\$28,371	100%	\$36,860	100%	\$39,980	100%
Average Annual	\$785		\$774		\$1,672		\$1,891		\$2,457		\$2,665	

As shown above, the largest sources of revenue are from property taxes followed by state-shared revenues (includes sales taxes). The Transit Fund reflects the ad valorem tax levied in the Town of Chapel Hill dedicated to transit expenditures along with vehicle license fees and the Town of Carrboro's contribution.

Sales tax revenue, included under the State-Shared Revenues category, is assumed to continue at the baseline levels including the 2002 ½% Local Option Sales Tax (Article 44) that is scheduled to expire. Per the State, a hold harmless provision is included that is anticipated to maintain local revenues at pre-expiration levels. It should be noted that current economic conditions have decreased sales tax revenue projections and in some cases no growth is projected in the **short term**. However, the fiscal impact analysis is a **long-term** analysis (with the first projection year in 2011) and assumes sales tax revenue will recover to the per capita amounts assumed in this analysis and will increase with growth (at the current baseline level) as has been the trend.

Also included under State-Shared Revenues is Powell Bill Funds. These funds are distributed by the State based on population (75 percent) and lane mileage (25 percent) for road maintenance purposes. In this analysis, no lane mileage increase is projected, so future Powell Bill revenues are projected on using a per capita approach based on 75 percent of the base year budget.

Expenditures

Further details on operating and capital expenditure projections for the Town of Chapel Hill are presented and discussed in this section. For additional detail on projection methodologies and expenditure components / assumptions, see the *LOS Document*, issued separately as an Appendix to this report.

Operating expenditures are shown *cumulatively* for each scenario—direct, indirect, and combined—in Figure 40. Costs are shown in constant 2008 dollars and are in thousands. In addition, at the bottom of the table, the average annual amount is shown to provide additional context.

Figure 40. Cumulative Operating Expenditures – Town of Chapel Hill Scenario Comparisons (x\$1,000)

Category	DIRECT SCENARIOS				INDIRECT SCENARIOS				TOTAL DIRECT AND INDIRECT			
	Scenario 1.	%	Scenario 2.	%	Indirect of Scenario 1	%	Indirect of Scenario 2	%	Scenario 1	%	Scenario 2	%
General Government	\$430	3%	\$408	3%	\$399	4%	\$441	4%	\$828	3%	\$850	3%
Development	\$1,155	7%	\$1,098	7%	\$875	9%	\$969	9%	\$2,030	8%	\$2,066	8%
Public Works	\$1,703	11%	\$1,615	10%	\$2,145	22%	\$2,354	22%	\$3,847	15%	\$3,969	15%
Police	\$336	2%	\$324	2%	\$914	9%	\$1,010	9%	\$1,250	5%	\$1,334	5%
Fire/EMS	\$7,108	44%	\$7,810	48%	\$257	3%	\$288	3%	\$7,365	28%	\$8,098	30%
Recreation and Parks	\$280	2%	\$126	1%	\$813	8%	\$933	9%	\$1,094	4%	\$1,060	4%
Library	\$168	1%	\$76	0%	\$488	5%	\$560	5%	\$656	3%	\$636	2%
Transit Fund	\$4,938	31%	\$4,767	29%	\$3,946	40%	\$4,371	40%	\$8,884	34%	\$9,138	34%
Special Fund	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%
Proprietary Funds	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%
TOTAL	\$16,118	100%	\$16,224	100%	\$9,837	100%	\$10,927	100%	\$25,955	100%	\$27,151	100%
Average Annual	\$1,075		\$1,082		\$656		\$728		\$1,730		\$1,810	

As shown above, the single largest annual operating cost in the direct scenarios is Fire. The Town Fire Department serves the University and the Town Fire Department will serve Carolina North as well. The development at Carolina North will require an additional Fire station, which includes the both the initial cost for apparatus and ongoing personnel costs to staff it. (Capital costs are discussed below.) The next largest expenditure is for Transit, which reflects total projected costs. No new Town roads are assumed at Carolina North so street maintenance costs do not increase significantly. It is assumed that University Public Safety will provide Police services, therefore minimal Town Police costs reflecting traffic patrol are projected for the direct scenarios. Cumulative expenditures for the direct impacts are around \$16 million with average annual expenditures projected at approximately \$1 million.

For the indirect impacts, transit is the largest expenditure followed by public works. Public works expenditures include solid waste services, provided to Town residents and businesses (non-University), as well as street operating and maintenance costs. Cumulative expenditures are around \$10 to \$11 million with average annual expenditures projected at approximately \$656,000 to \$728,000 depending on scenario.

Combined expenditures total \$26 to \$27 million over 15 years, or an average annual impact of \$1.7 to \$1.8 million depending on scenario.

Figure 41 shows cumulative **capital** expenditures for all projected Town capital expenditures. The chart reflects development-related capital expenditures accruing to the Town for each scenario. Current 2008 dollars are used and expressed in thousands. In addition, at the bottom of the table, the average annual amount is shown to provide additional context.

Figure 41. Cumulative Capital Expenditures – Town of Chapel Hill Scenario Comparisons (x\$1,000)

Category	DIRECT SCENARIOS				INDIRECT SCENARIOS				TOTAL DIRECT AND INDIRECT			
	Scenario 1.	%	Scenario 2.	%	Indirect of Scenario 1	%	Indirect of Scenario 2	%	Scenario 1	%	Scenario 2	%
Police	\$268	4%	\$267	4%	\$750	12%	\$788	12%	\$1,018	7%	\$1,055	8%
Fire	\$3,100	42%	\$3,100	43%	\$79	1%	\$79	1%	\$3,179	23%	\$3,179	23%
Recreation and Parks	\$1,576	21%	\$1,563	21%	\$2,791	43%	\$2,791	43%	\$4,366	32%	\$4,354	32%
Library	\$273	4%	\$220	3%	\$1,055	16%	\$1,055	16%	\$1,328	10%	\$1,274	9%
Transportation	\$1,206	16%	\$1,192	16%	\$972	15%	\$972	15%	\$2,179	16%	\$2,165	16%
Transit	\$937	13%	\$929	13%	\$840	13%	\$840	13%	\$1,777	13%	\$1,769	13%
TOTAL	\$7,360	100%	\$7,271	100%	\$6,487	100%	\$6,525	100%	\$13,846	100%	\$13,796	100%
Average Annual	\$491		\$485		\$432		\$435		\$923		\$920	

As shown above, Fire capital needs represent the largest single capital cost item for the Town due to the direct impact of Phase I of Carolina North. This includes cost for the station and apparatus. The model also includes a mechanism for replacement vehicles once the 12-year useful life of each vehicle is reached. Since this is a 15-year analysis and the need for apparatus occurs after year 3, the need and cost for replacement vehicles is not triggered. Other direct capital needs are recreation and parks, road improvements, and transit. For transit, the total **local** share of the costs is shown, netting out state and federal contributions.

Capital costs projected for the indirect impact scenarios are highest for recreation and parks, library, transportation, transit, and police. This is based on incremental capital needs to serve growth. As documented in the *LOS Document*, the approach of the Fiscal Impact Analysis to project future capital needs is to base those needs on *current levels of service and on an incremental basis*. No judgment is made as to whether the levels of service are adequate, inadequate, or better than adequate, nor are any assumptions made regarding future changes in levels of service.

Additionally, the results shown and discussed below reflect needs due to *new growth only* and are projected based on current levels of service. This may be different from a facility or capital improvement plan where needs may be due to existing deficiencies, different policies, demographic shifts, technological changes, etc. For example, any changes in Transit policies or plans modifying levels or types of service are not reflected herein. These changes, once further direction is available, can be tested using the fiscal model developed for UNC.

Furthermore, capital costs shown here are **incremental** needs due specifically to the growth projected in the study. For instance, park development is per acre as opposed to waiting until a certain size threshold is met (e.g., a 20-acre park) to trigger the cost. Incremental costs are

included throughout except in cases where staff has indicated that a facility has been oversized to meet the needs of growth (e.g., the Town Operations Center).

All capital costs included in the analysis are shown as Pay-Go. By showing Pay-Go funding for all capital improvements, the true costs of capital impacts are depicted. If those facilities were bond financed, debt service would continue beyond the last projection year and therefore would not adequately be captured in this analysis.

ORANGE COUNTY REVENUES AND EXPENDITURES

Revenues

All General Fund revenues are evaluated and include dedicated capital revenues as well (i.e., school impact fees). Some revenues, such as “Investment Earnings” are not tied directly to growth and are therefore assumed to be fixed. (See the *LOS Document* issued under separate cover for assumptions.)

Projected *cumulative* revenues are shown for direct and indirect scenarios separately and combined. Totals are provided below in Figure 42. In addition, at the bottom of the table, the average annual amount is shown to provide additional context. Revenues are shown in constant 2008 dollars and shown in thousands.

Figure 42. Cumulative Revenues – Orange County Scenario Comparisons (x\$1,000)

Category	DIRECT SCENARIOS				INDIRECT SCENARIOS				TOTAL DIRECT AND INDIRECT			
	Scenario 1.	%	Scenario 2.	%	Indirect of Scenario 1	%	Indirect of Scenario 2	%	Scenario 1	%	Scenario 2	%
General Fund Operating												
Property Taxes	\$15,828	82%	\$17,214	84%	\$46,396	84%	\$52,410	85%	\$62,223	84%	\$69,624	85%
Sales Tax	\$3,088	16%	\$2,937	14%	\$5,053	9%	\$5,158	8%	\$8,141	11%	\$8,095	10%
Licenses and Permits	\$16	0%	\$7	0%	\$62	0%	\$71	0%	\$78	0%	\$79	0%
Investment Earnings	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%
Miscellaneous	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%
Charges for Services	\$415	2%	\$343	2%	\$874	2%	\$983	2%	\$1,289	2%	\$1,326	2%
Intergovernmental	\$0	0%	\$0	0%	\$2,621	5%	\$3,008	5%	\$2,621	4%	\$3,008	4%
Transfers from Other Funds	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%
SUBTOTAL-Operating	\$19,346	100%	\$20,501	100%	\$55,006	100%	\$61,631	100%	\$74,352	100%	\$82,132	100%
Capital												
Impact Fees-CHCCS	\$536		\$482		\$11,479		\$11,479		\$12,015		\$11,961	
Impact Fees-OCS	\$0		\$0		\$847		\$847		\$847		\$847	
SUBTOTAL-Capital	\$536		\$482		\$12,326		\$12,326		\$12,862		\$12,808	
GRAND TOTAL REVENUES	\$19,882		\$20,983		\$67,332		\$73,957		\$87,215		\$94,940	
Average Annual	\$1,325		\$1,399		\$4,489		\$4,930		\$5,814		\$6,329	
Other Revenues												
CHCCS Special District Tax	\$3,282		\$3,638		\$9,152		\$10,339		\$12,434		\$13,978	

As shown above, the largest sources of revenue are from property taxes followed by sales tax. Several revenue sources are not impacted by new development and are assumed to not increase with growth. Intergovernmental revenues reflect social service funding, which is assumed in the indirect scenarios but not in the direct scenarios. This is the same approach that is taken on the cost side (details are below).

Also shown on the above figure are dedicated capital revenues from school impact fees for both school districts in the County. The rates are from the County's recently adopted impact fee ordinance and assume the phased in amount (60 percent of maximum supportable amounts) that is consistent with the timing of housing development in the scenarios analyzed. (See the *LOS Document* for details.)

As shown, cumulative revenues for the direct scenarios are around \$20 million and \$67 to \$73 million for the indirect scenarios. Combined, the cumulative revenue projected over 15 years is \$87 to \$95 million, or an average annual amount of \$5.8 and \$6.3 million.

The CHCCS Special District Tax is shown separately here because Orange County reports this revenue source separately from its General Fund Budget. The CHCCS tax is a dedicated revenue source for use by the Chapel Hill-Carrboro City School System. Results have been shown throughout this report with the CHCCS Special District Tax layered on the Orange County General Fund results. The Special District Tax revenue is based on the FY08 ad valorem tax rate and the assessed values of the development projected within the CHCCS district.

Expenditures

Further details on operating and capital expenditure projections for Orange County are presented and discussed in this section. For additional detail on projection methodologies and expenditure components / assumptions, see the *LOS Document*, issued separately as an Appendix to this report.

Operating expenditures are shown *cumulatively* for each scenario—direct, indirect, and combined—in Figure 43. Costs are shown in constant 2008 dollars and are in thousands. In addition, at the bottom of the table, the average annual amount is shown to provide additional context.

Figure 43. Cumulative Operating Expenditures – Orange County Scenario Comparisons (x\$1,000)

Category	DIRECT SCENARIOS				INDIRECT SCENARIOS				TOTAL DIRECT AND INDIRECT			
	Scenario 1.	%	Scenario 2.	%	Indirect of Scenario 1	%	Indirect of Scenario 2	%	Scenario 1	%	Scenario 2	%
Governing and Management	\$356	9%	\$305	11%	\$767	3%	\$857	3%	\$1,123	3%	\$1,163	3%
General Services	\$646	16%	\$587	21%	\$1,121	4%	\$1,255	4%	\$1,766	5%	\$1,842	5%
Community and Environment	\$65	2%	\$62	2%	\$189	1%	\$208	1%	\$254	1%	\$270	1%
Human Services-Aging	\$0	0%	\$0	0%	\$229	1%	\$263	1%	\$229	1%	\$263	1%
Human Services-Health	\$310	8%	\$205	7%	\$877	3%	\$999	3%	\$1,187	4%	\$1,204	3%
Human Services-Social Service	\$0	0%	\$0	0%	\$3,192	11%	\$3,663	11%	\$3,192	10%	\$3,663	10%
Human Services-Other	\$100	3%	\$45	2%	\$456	2%	\$524	2%	\$556	2%	\$568	2%
Public Safety	\$1,224	31%	\$973	35%	\$2,592	9%	\$2,929	9%	\$3,816	12%	\$3,902	11%
Culture and Recreation	\$84	2%	\$38	1%	\$415	1%	\$476	1%	\$499	2%	\$514	1%
Education-CHCCS Operating	\$1,178	30%	\$528	19%	\$17,845	62%	\$20,482	62%	\$19,022	58%	\$21,010	59%
Education-OCS Operating	\$0	0%	\$0	0%	\$1,143	4%	\$1,313	4%	\$1,143	3%	\$1,313	4%
Non-Departmental	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%
TOTAL	\$3,963	100%	\$2,744	100%	\$28,824	100%	\$32,968	100%	\$32,788	100%	\$35,712	100%
Average Annual	\$264		\$183		\$1,922		\$2,198		\$2,186		\$2,381	

As shown above, the largest annual operating costs in the direct scenarios are public safety and schools for Scenario 1. For Scenario 2, school expenditures represent a smaller proportion of total operating costs due to fewer projected students. Average annual expenditures are approximately \$264,000 to \$183,000 per year depending on the scenario.

For the indirect impacts, school operating costs (CHCCS) are the largest expenditure at 62 percent of the total followed by human services. Average annual expenditures are around \$2 million.

The combined impact is projected at \$33 to \$36 million, or an average annual expense of \$2.2 to \$2.3 million.

Cumulative capital expenditures are shown in Figure 44. The figure reflects development-related capital expenditures accruing to the County for each scenario. Current 2008 dollars are used and expressed in thousands. In addition, at the bottom of the table, the average annual amount is shown to provide additional context.

Figure 44. Cumulative Capital Expenditures – Orange County Scenario Comparisons (x\$1,000)

Category	DIRECT SCENARIOS				INDIRECT SCENARIOS				TOTAL DIRECT AND INDIRECT			
	Scenario 1.	%	Scenario 2.	%	Indirect of Scenario 1	%	Indirect of Scenario 2	%	Scenario 1	%	Scenario 2	%
General Government	\$329	16%	\$324	18%	\$430	2%	\$430	2%	\$760	3%	\$754	3%
Human Services	\$164	8%	\$147	8%	\$898	3%	\$898	3%	\$1,062	4%	\$1,046	4%
Culture and Recreation	\$100	5%	\$0	0%	\$701	3%	\$701	3%	\$801	3%	\$701	2%
Public Safety	\$59	3%	\$58	3%	\$277	1%	\$277	1%	\$336	1%	\$335	1%
Public Works	\$420	20%	\$370	20%	\$520	2%	\$520	2%	\$940	3%	\$890	3%
Education-CHCCS Capital	\$1,031	49%	\$916	50%	\$22,767	84%	\$22,767	84%	\$23,798	81%	\$23,683	81%
Education-OCS Capital	\$0	0%	\$0	0%	\$1,650	6%	\$1,650	6%	\$1,650	6%	\$1,650	6%
TOTAL	\$2,103	100%	\$1,815	100%	\$27,245	100%	\$27,245	100%	\$29,348	100%	\$29,060	100%
Average Annual	\$140		\$121		\$1,816		\$1,816		\$1,957		\$1,937	

As noted elsewhere, capital costs reflect average incremental costs for expanded facilities. Education-related capital costs represent the largest single capital cost item for the County. Other direct capital needs are public works (vehicles and equipment for Countywide needs), general government and human service facilities, as well as culture and recreation needs.

Capital costs projected for the indirect impact scenarios are highest for school needs. Again, this is due to the number of students projected as an indirect impact of Carolina North and the cost for an additional student seat. The fiscal impact analysis includes the incremental cost to serve projected new students generated from the Carolina North development and the indirect spin-off development. The analysis includes these costs on a *per seat basis*, rather than waiting for a certain threshold to be reached such as the need for a new school or an expansion. In reality, the County would not build one seat at a time; however, to truly reflect the cost of growth, the incremental capital costs are included.

As documented in the *LOS Document*, the approach of the Fiscal Impact Analysis to project future capital needs is to base those needs on *current levels of service and on an incremental basis*. No judgment is made as to whether the levels of service are adequate, inadequate, or better than adequate, nor are any assumptions made regarding future changes in levels of service. Additionally, it should be noted that a fiscal impact analysis, while projecting specific capital facilities, is different from a facility plan.

The results shown and discussed below reflect needs due to *new growth only* and are projected based on current levels of service. This may be different from a facility or capital improvement plan where needs may be due to existing deficiencies, different policies, demographic shifts, technological changes, etc.

All capital costs included in the analysis are shown as Pay-Go. By showing Pay-Go funding for all capital improvements, the true costs of capital impacts are depicted. If those facilities were bond financed, debt service would continue beyond the last projection year and therefore would not adequately be captured in this analysis.

TOWN OF CARRBORO REVENUES AND EXPENDITURES

Revenues

All General Fund revenues are evaluated. Some revenues, such as “Investment Earnings” are not tied directly to growth and are therefore assumed to be fixed. (See the *LOS Document* issued under separate cover for assumptions.)

Projected *cumulative* revenues for the Town of Carrboro are shown for direct and indirect scenarios separately and combined. No revenues are projected for the direct impact in the Town of Carrboro. Totals are provided below in Figure 45. In addition, at the bottom of the table, the average annual amount is shown to provide additional context. Revenues are shown in constant 2008 dollars and shown in thousands.

Figure 45. Cumulative Revenues – Town of Carrboro Scenario Comparisons (x\$1,000)

Category	DIRECT SCENARIOS				INDIRECT SCENARIOS				TOTAL DIRECT AND INDIRECT			
	Scenario 1.	%	Scenario 2.	%	Indirect of Scenario 1	%	Indirect of Scenario 2	%	Scenario 1	%	Scenario 2	%
Ad Valorem Tax	\$0	0%	\$0	0%	\$5,890	80%	\$6,674	80%	\$5,890	80%	\$6,674	80%
Local Sales Tax	\$0	0%	\$0	0%	\$910	12%	\$1,044	12%	\$910	12%	\$1,044	12%
Other Taxes/Licenses	\$0	0%	\$0	0%	\$129	2%	\$144	2%	\$129	2%	\$144	2%
Unrestricted Intergovernmental	\$0	0%	\$0	0%	\$172	2%	\$198	2%	\$172	2%	\$198	2%
Restricted Intergovernmental	\$0	0%	\$0	0%	\$104	1%	\$119	1%	\$104	1%	\$119	1%
Fees and Permits	\$0	0%	\$0	0%	\$113	2%	\$122	1%	\$113	2%	\$122	1%
Sales and Services	\$0	0%	\$0	0%	\$49	1%	\$56	1%	\$49	1%	\$56	1%
Investment Earnings	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%
Other Revenues	\$0	0%	\$0	0%	\$9	0%	\$10	0%	\$9	0%	\$10	0%
Other Financing Sources	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%
TOTAL	\$0	0%	\$0	0%	\$7,375	100%	\$8,368	100%	\$7,375	100%	\$8,368	100%
Average Annual	\$0		\$0		\$492		\$558		\$492		\$558	

As shown above, the largest sources of revenue are from property taxes followed by sales tax. Local sales tax is assumed to continue at the baseline levels including the 2002 ½% Local Option Sales Tax (Article 44) that is scheduled to expire. Per the State, a hold harmless provision is included that is anticipated to maintain local revenues at pre-expiration levels. It should be noted that current economic conditions have decreased sales tax revenue projections and in some cases no growth is projected in the **short term**. However, the fiscal impact analysis is a **long-term** analysis (with the first projection year in 2011) and assumes sales tax revenue will recover to the per capita amounts assumed in this analysis and will increase with growth (at the current baseline level) as has been the trend. Several revenue sources are not impacted by new development and are assumed to not increase with growth.

Expenditures

Further details on operating and capital expenditure projections for the Town of Carrboro are presented and discussed below. For additional detail on projection methodologies and expenditure components / assumptions, see the *LOS Document*, issued separately as an Appendix to this report.

Operating expenditures are shown *cumulatively* for each scenario—direct, indirect, and combined—in Figure 46. Costs are shown in constant 2008 dollars and are in thousands. In addition, at the bottom of the table, the average annual amount is shown to provide additional context.

Figure 46. Cumulative Operating Expenditures – Town of Carrboro Scenario Comparisons (x\$1,000)

Category	DIRECT SCENARIOS				INDIRECT SCENARIOS				TOTAL DIRECT AND INDIRECT			
	Scenario 1.	%	Scenario 2.	%	Indirect of Scenario 1	%	Indirect of Scenario 2	%	Scenario 1	%	Scenario 2	%
Governance and Admin	\$0	0%	\$0	0%	\$498	11%	\$553	11%	\$498	9%	\$553	9%
Police	\$0	0%	\$0	0%	\$744	16%	\$840	17%	\$744	14%	\$840	14%
Fire	\$0	0%	\$0	0%	\$800	18%	\$899	18%	\$800	15%	\$899	15%
Planning	\$0	0%	\$0	0%	\$215	5%	\$239	5%	\$215	4%	\$239	4%
Transportation	\$782	100%	\$755	100%	\$625	14%	\$692	14%	\$1,407	26%	\$1,448	25%
Public Works	\$0	0%	\$0	0%	\$1,343	30%	\$1,483	29%	\$1,343	25%	\$1,483	25%
Recreation and Parks	\$0	0%	\$0	0%	\$324	7%	\$372	7%	\$324	6%	\$372	6%
Nondepartmental	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%
Special Funds	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%
TOTAL	\$782	100%	\$755	100%	\$4,550	100%	\$5,078	100%	\$5,332	100%	\$5,833	100%
Average Annual	\$52		\$50		\$303		\$339		\$355		\$389	

As shown above, the only expenditure in the direct scenarios is for Transportation, which reflects the Town's contribution for Transit expenditures per the local cost-sharing agreement. This amount reflects Carrboro's share of the projected expenditure for Transit to serve Carolina North. In the indirect scenarios, the largest operating costs are public works, fire, police, and transportation. This reflects current levels of service and the projected impact on Town services as an indirect result of the Carolina North development. Public Works costs include solid waste, provided as a Town service to residences and businesses. Transportation is the line item for the Town's contribution to the Transit system and again reflects Carrboro's share of the projected costs per the partner cost-sharing agreement.

Cumulative capital expenditures are shown in Figure 47. The figure reflects development-related capital expenditures accruing to the Town of Carrboro. Current 2008 dollars are used and expressed in thousands. In addition, at the bottom of the table, the average annual amount is shown to provide additional context.

Figure 47. Cumulative Capital Expenditures – Town of Carrboro Scenario Comparisons (x\$1,000)

Category	DIRECT SCENARIOS				INDIRECT SCENARIOS				TOTAL DIRECT AND INDIRECT			
	Scenario 1.	%	Scenario 2.	%	Indirect of Scenario 1	%	Indirect of Scenario 2	%	Scenario 1	%	Scenario 2	%
Police	\$0	0%	\$0	0%	\$113	7%	\$141	8%	\$113	7%	\$141	8%
Fire	\$0	0%	\$0	0%	\$271	16%	\$271	15%	\$271	16%	\$271	15%
Recreation and Parks	\$0	0%	\$0	0%	\$390	23%	\$390	22%	\$390	23%	\$390	22%
Transportation	\$0	0%	\$0	0%	\$892	54%	\$990	55%	\$892	54%	\$990	55%
Public Works	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%
Transit	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%	\$0	0%
TOTAL	\$0	0%	\$0	0%	\$1,666	100%	\$1,792	100%	\$1,666	100%	\$1,792	100%
Average Annual	\$0		\$0		\$111		\$119		\$111		\$119	

As noted elsewhere, capital costs reflect average incremental costs for expanded facilities. Transportation costs, reflecting greenway and sidewalk construction costs, are the single largest capital expenditure projected for the Town of Carrboro. This is followed by recreation and parks and fire.

As documented in the *LOS Document*, the approach of the Fiscal Impact Analysis to project future capital needs is to base those needs on *current levels of service and on an incremental basis*. No judgment is made as to whether the levels of service are adequate, inadequate, or better than adequate, nor are any assumptions made regarding future changes in levels of service. Additionally, it should be noted that a fiscal impact analysis, while projecting specific capital facilities, is different from a facility plan. Particularly, the results shown and discussed below reflect needs due to *new growth only* and are projected based on current levels of service. This may be different from a facility or capital improvement plan where needs may be due to existing deficiencies, different policies, demographic shifts, technological changes, etc. Furthermore, capital costs shown here are incremental needs due specifically to the growth projected in the study.

All capital costs included in the analysis are shown as Pay-Go. By showing Pay-Go funding for all capital improvements, the true costs of capital impacts are depicted. If those facilities were bond financed, debt service would continue beyond the last projection year and therefore would not adequately be captured in this analysis.