

# ***Fiscal Impact Analysis of Carolina North: Briefing on Results***

*Presented by:*

**TischlerBise**  
Fiscal, Economic & Planning Consultants

March 31, 2009

# *Overview of Presentation*

- Overview of scope
- Overview of fiscal impact analysis
- Major assumptions
- Fiscal impact results for **Direct** scenarios for each jurisdiction
- Fiscal impact results for **Indirect** scenarios for each jurisdiction
- **Combined** fiscal impact results for each jurisdiction

# Overview of Scope of Work

- Objective of the Fiscal Impact Analysis: *Provide baseline analysis*
- Process:
  - Level of service interviews with jurisdictions
  - Develop model
  - Reported preliminary results
  - Further feedback on assumptions/refinement (e.g., trip estimates)
  - Deliver draft and final reports
  - Present findings
- Implementation of Fiscal Impact Model: Allows for further testing of “What If” scenarios

# Overview of Fiscal Impact Analysis

- Cash flow to the public sector
  - Question: Are the revenues generated by growth enough to cover the costs from resulting service and facility demands?
- Reflects operating expenses and capital costs
- All revenues
- Revenues minus expenditures = net surplus or deficit
- Fiscal impact analysis is not revenue constrained
  - Expenditures projected to maintain current levels of service
  - Revenues projected on scenarios and formulas
  - Revenues and expenditures are projected separately

# *Economic Impact Analysis*

- Reflects overall economy of the community
  - Residential: Primary factors are the construction phase and consumer spending
  - Nonresidential: Primary factors are job creation and real disposable income
- Focuses on short-term impacts
- May not acknowledge whether impacts are net new as opposed to a shift from current situation
- Impact on economy may not reflect local revenue streams

# *Carolina North Assumptions*

- Analysis serves as a baseline analysis
- Adopted FY 2007-08 Budgets
- Current dollars are used
- Two sets of scenarios:
  - Two **Direct** Scenarios: Fiscal impact of a 15-year development program as provided by UNC
  - Two **Indirect** Scenarios: Fiscal impact of secondary growth due to Carolina North; based on current patterns as provided by UNC
- Current levels of services in each jurisdiction

# Assumptions (cont'd)

- Key assumptions on Carolina North direct services
  - Town of Chapel Hill provides Fire
  - University provides Police
  - No new Town streets
- Schools: Operating and capital included in Orange County results
- Transit: Costs projected based on **current levels** of operations / infrastructure
  - Costs included in Chapel Hill and Carrboro results (cost to Carrboro is revenue to Chapel Hill)
- Capital expenditures reflect **incremental** costs to maintain current levels of service (i.e., the portion of the facility needed due to development)

---

## LEVEL OF SERVICE / COST & REVENUE ASSUMPTIONS

### APPENDIX TO THE FISCAL IMPACT ANALYSIS OF 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*

---

March 3, 2009

Prepared By:

**TischlerBise**  
Fiscal, Economic & Planning Consultants





# ***FISCAL IMPACT ANALYSIS RESULTS: Direct Scenarios***

## ***Definition of DIRECT Impacts***

- Fiscal impacts from 15-year Phase I Carolina North development program
- Revenues and costs generated to each jurisdiction ***only from development on-site***
- Two scenarios modeled: inputs are housing units, nonresidential square footage, jobs
- No spin-off impacts included in direct results

# Scenarios: Residential Demand Factors (15-Year Total)

RESIDENTIAL	SCENARIO 1	SCENARIO 2
	<i>Direct</i>	<i>Direct</i>
<b><i>Housing Units</i></b>		
<i>Carolina North [1]</i>		
University Housing (multifamily)	250	125
Private Housing (multifamily)	167	250
<i>Total Units</i>	417	375
<b><i>Population [2]</i></b>		
Chapel Hill	751	675
Carrboro	0	0
Other Orange County	0	0
Orange County	751	675
<b><i>Public School Students [3]</i></b>		
CHCCS	29	26
OCS	0	0

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

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

[3] 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

# Scenarios: Nonresidential Demand Factors (15-Year Total)

NONRESIDENTIAL	SCENARIO 1	SCENARIO 2
	<i>Direct</i>	<i>Direct</i>
<b><i>Projected Total Jobs at Carolina North [1]</i></b>		
University	2,725	2,725
Corporate Office Jobs	2,100	2,100
Retail Jobs	333	333
<i>TOTAL On-Site</i>	<i>5,158</i>	<i>5,158</i>
Existing UNC Jobs Anticipated to Move to CN	1,567	1,567
<b><i>Projected Direct New Jobs at Carolina North [2]</i></b>	<b><i>3,591</i></b>	<b><i>3,591</i></b>

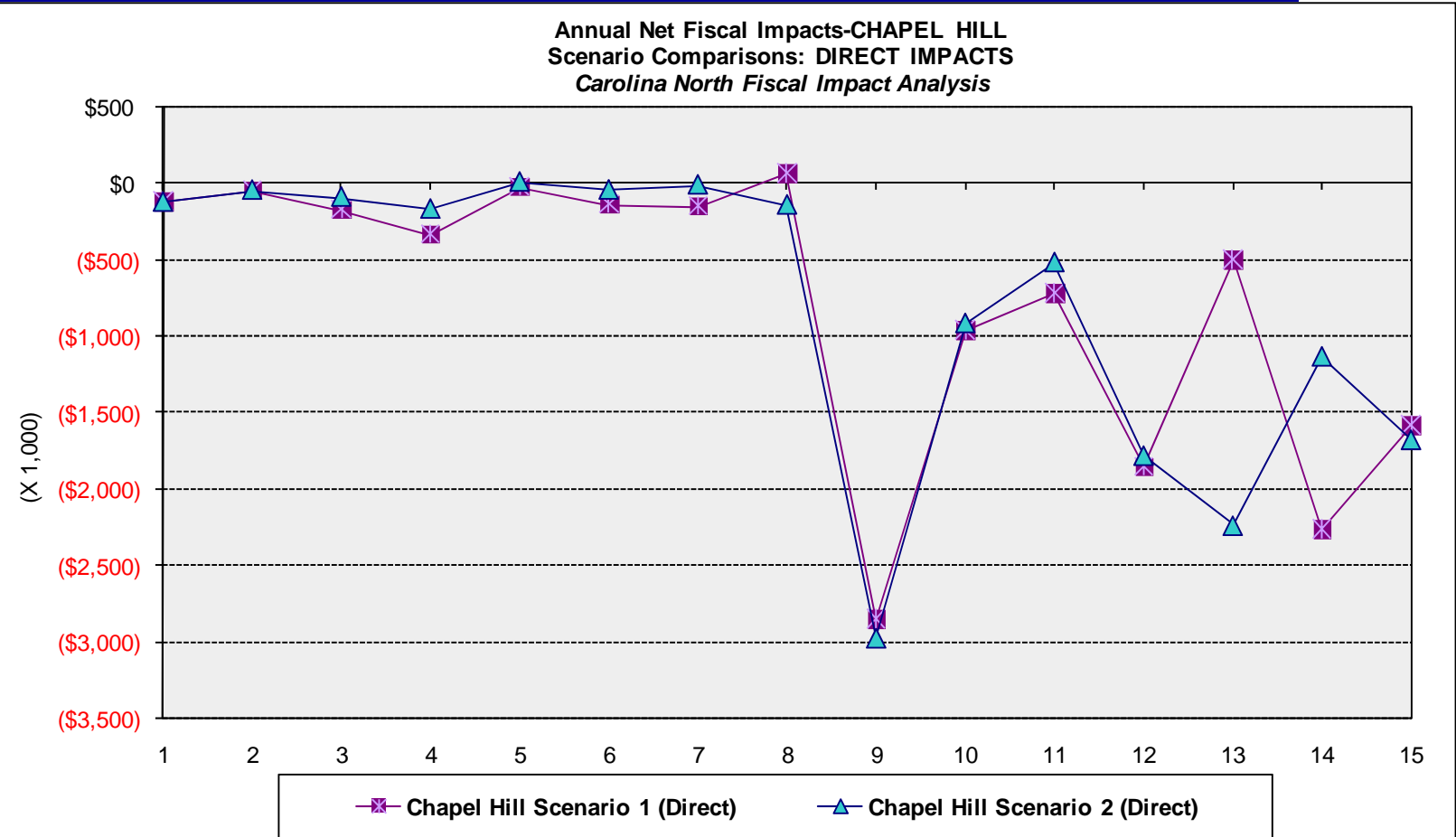
[1] UNC; located in Chapel Hill and Orange County.

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

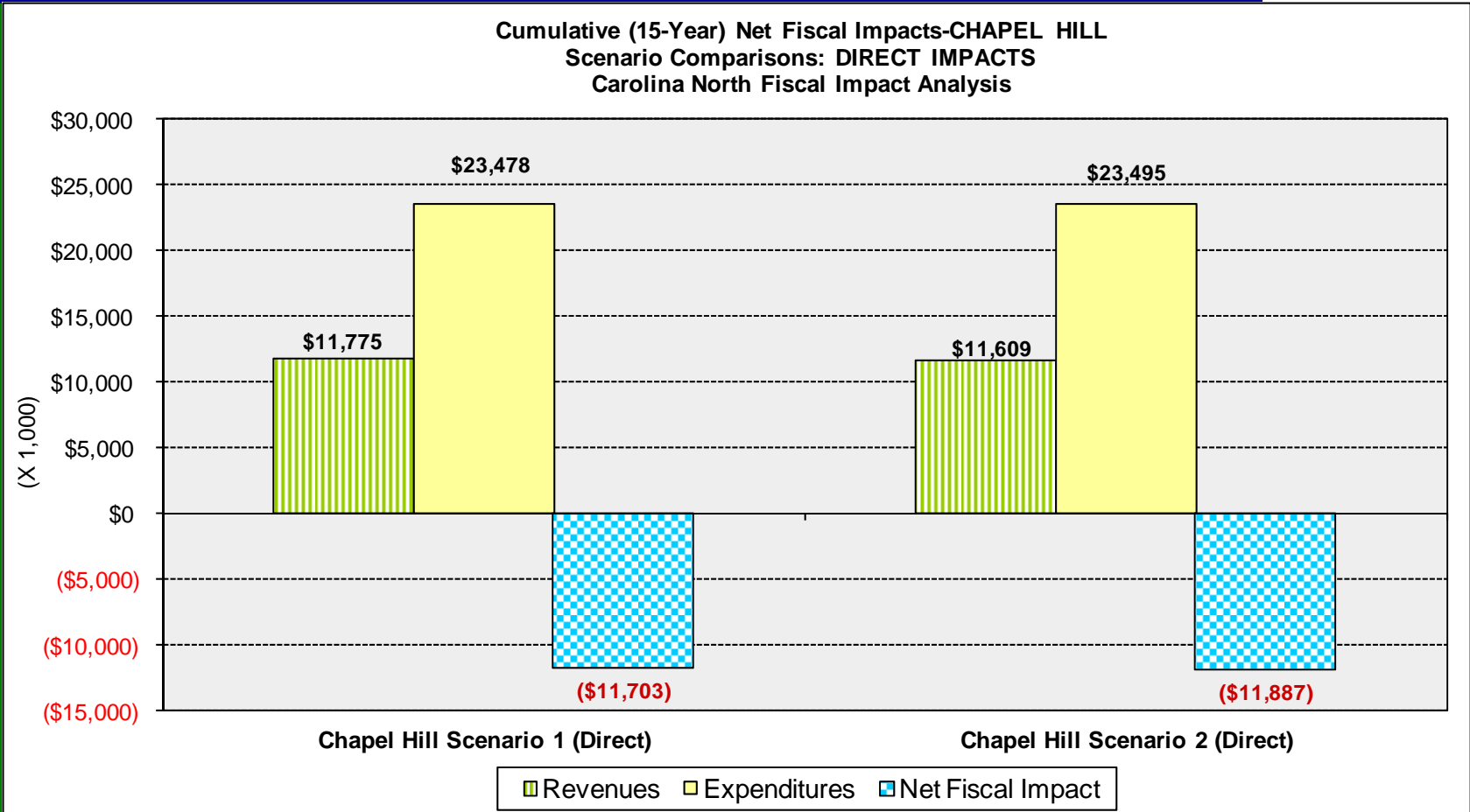
# ***DIRECT Fiscal Impact Analysis Results***

- Shown in two ways for each jurisdiction:
  - Annual net results — year-to-year revenues minus expenditures
  - Cumulative net results — total revenues minus total operating and capital costs over 15-year period
- Net fiscal impacts from **new development** only

# Results-Chapel Hill Annual



# Results-Chapel Hill Cumulative

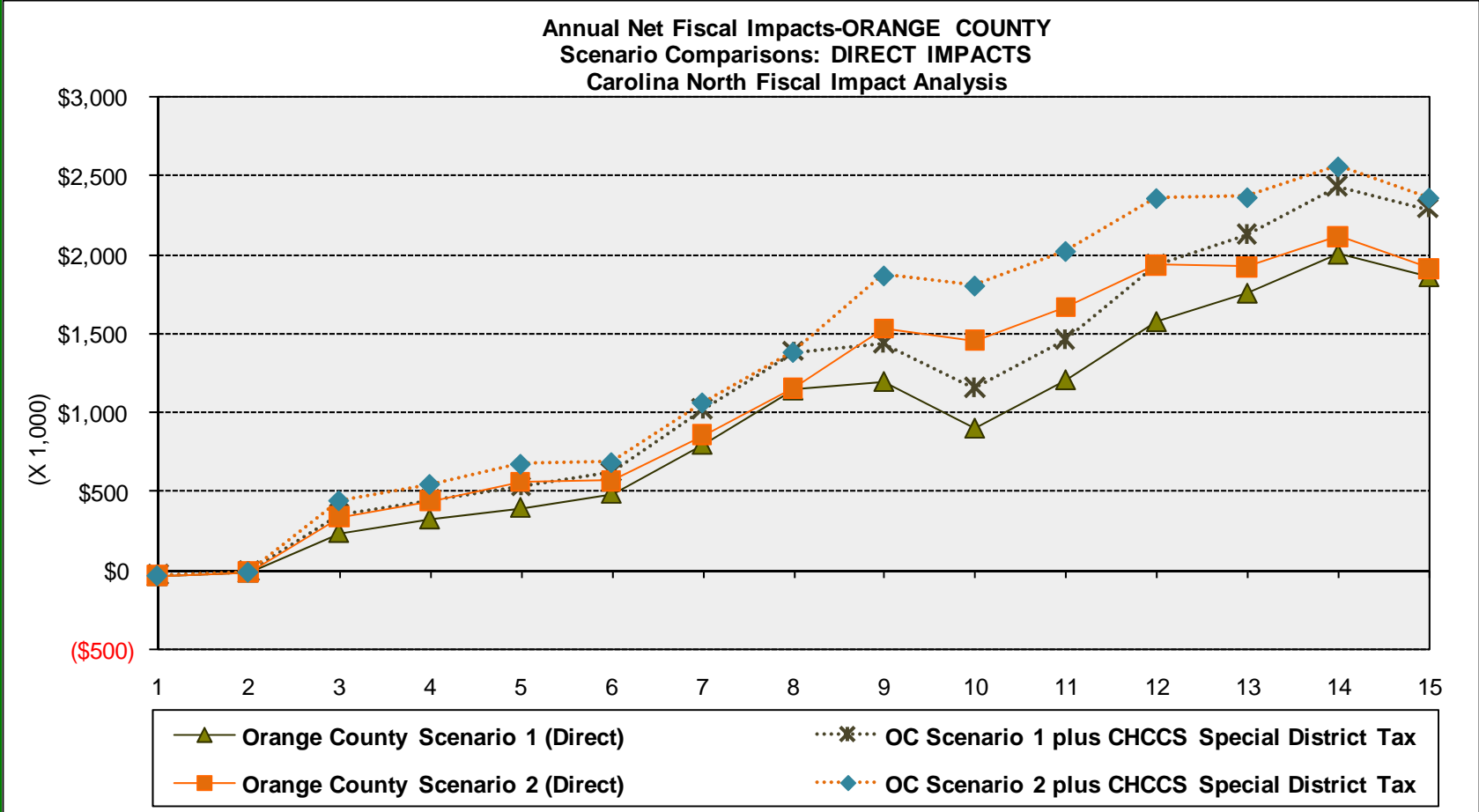


# ***Key Findings: DIRECT Impacts to Chapel Hill***

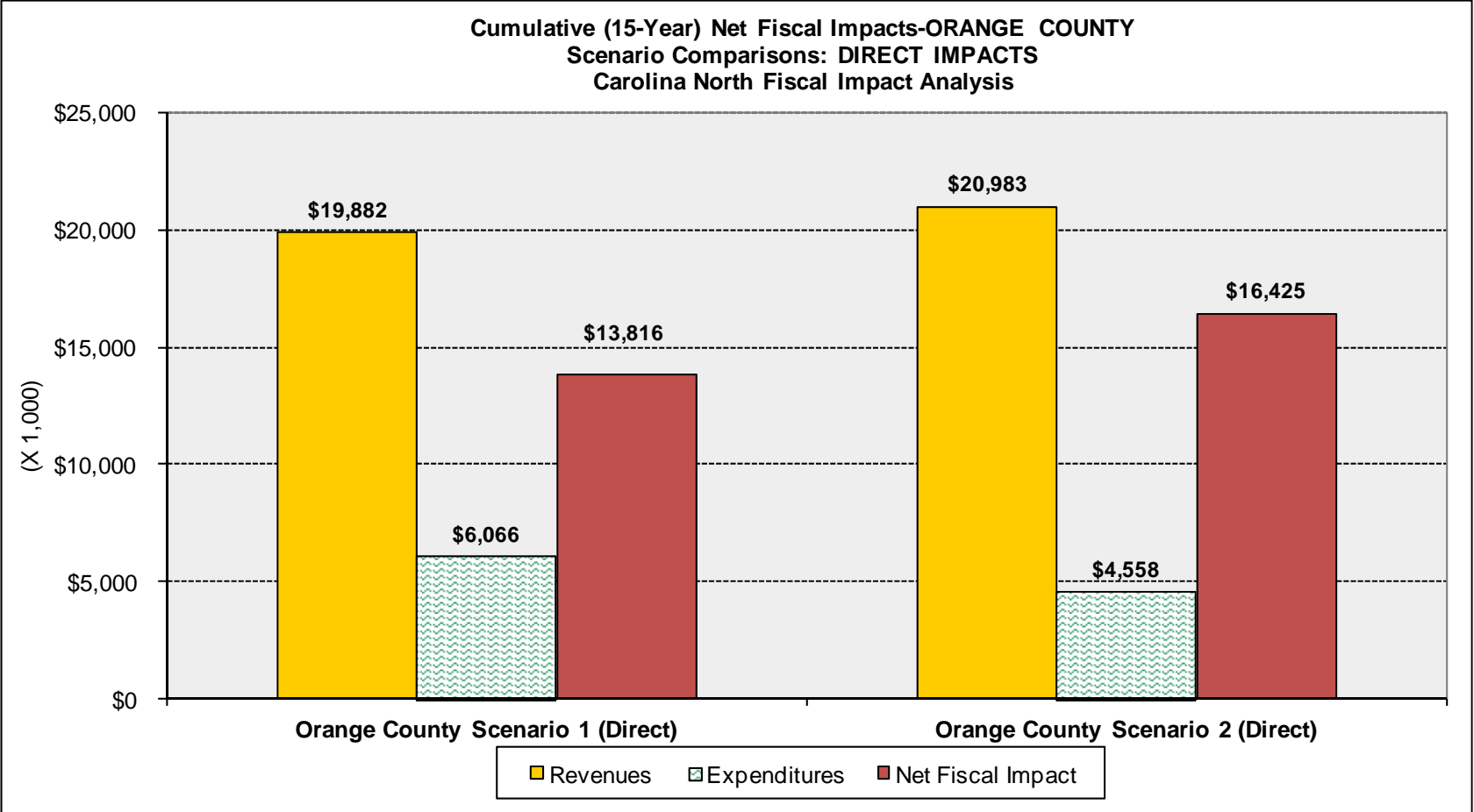
- Net deficits to the Town of Chapel Hill.
- Cumulative net deficit is almost \$12 million, or approximately \$800,000 average annual
- New Fire station, apparatus, and operating impact accounts for 85 percent of deficit
- Transit costs included in results; Carrboro's share of cost is revenue to Chapel Hill
- Analysis assumes Town Police will NOT be primary provider at Carolina North (traffic patrol costs included)
- Analysis assumes no new Town roads (Streets maintenance costs from increase in traffic are included)



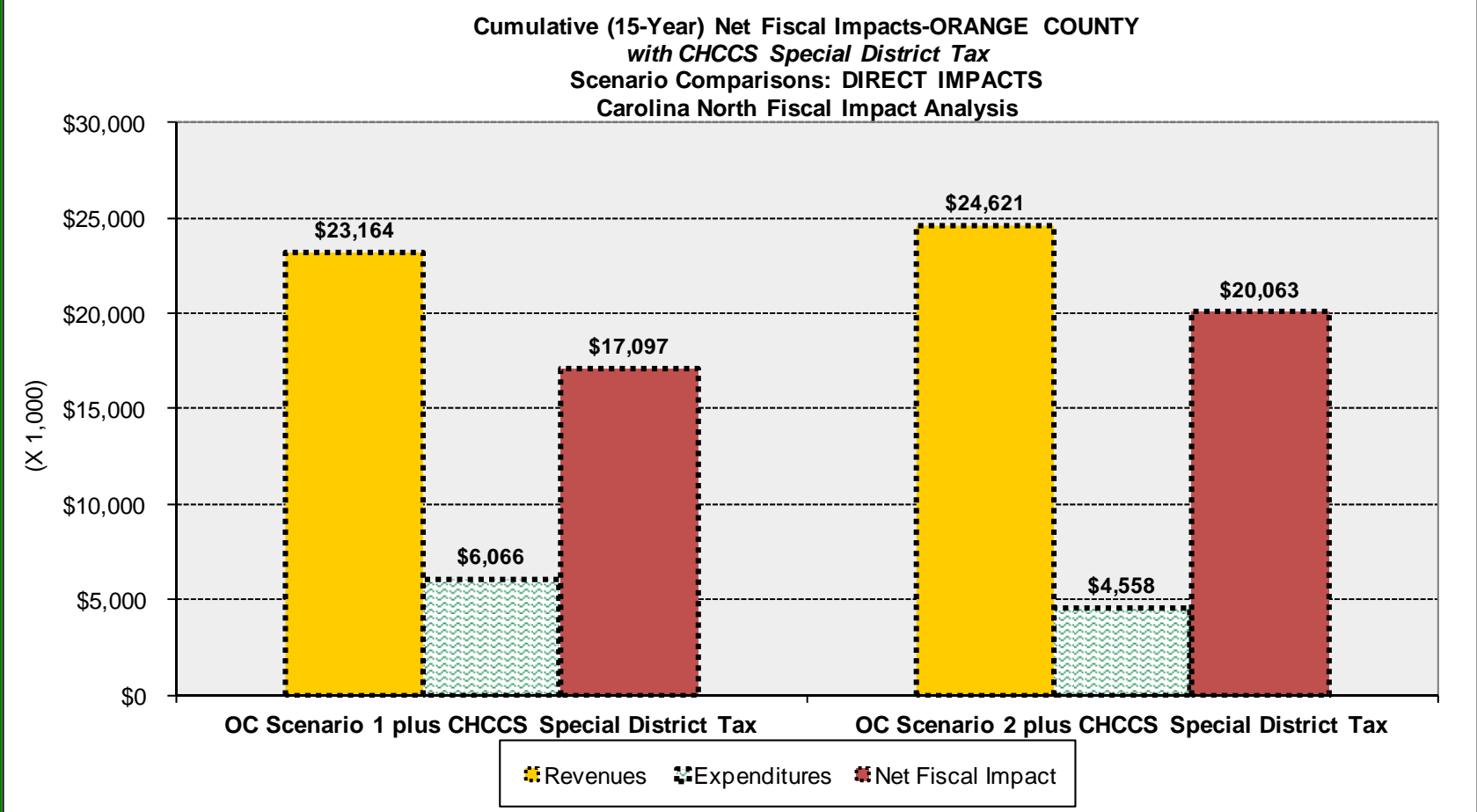
# Results-Orange County Annual



# Results-Orange County Cumulative



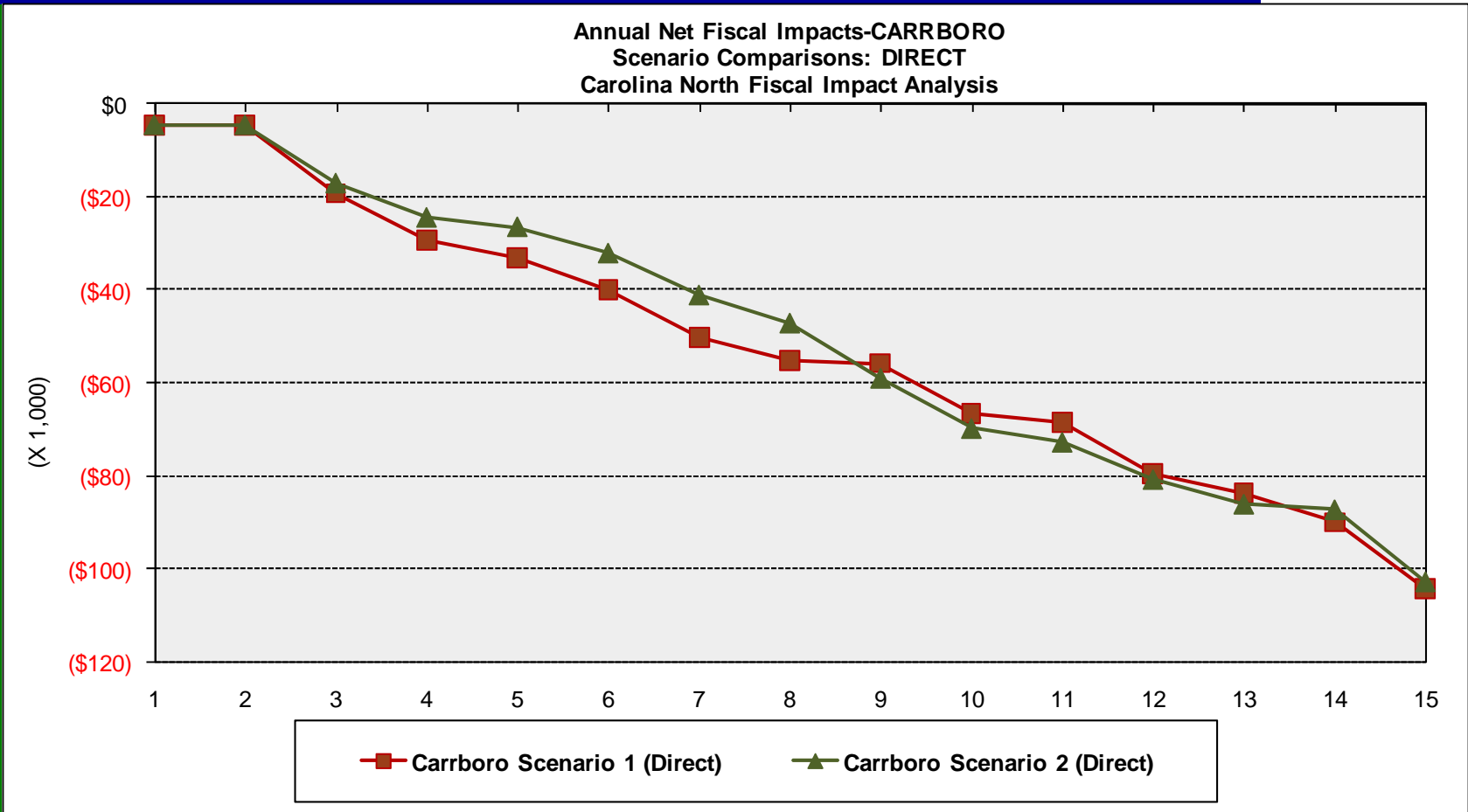
# Results-Orange County Cumulative with CHCCS Special District Tax



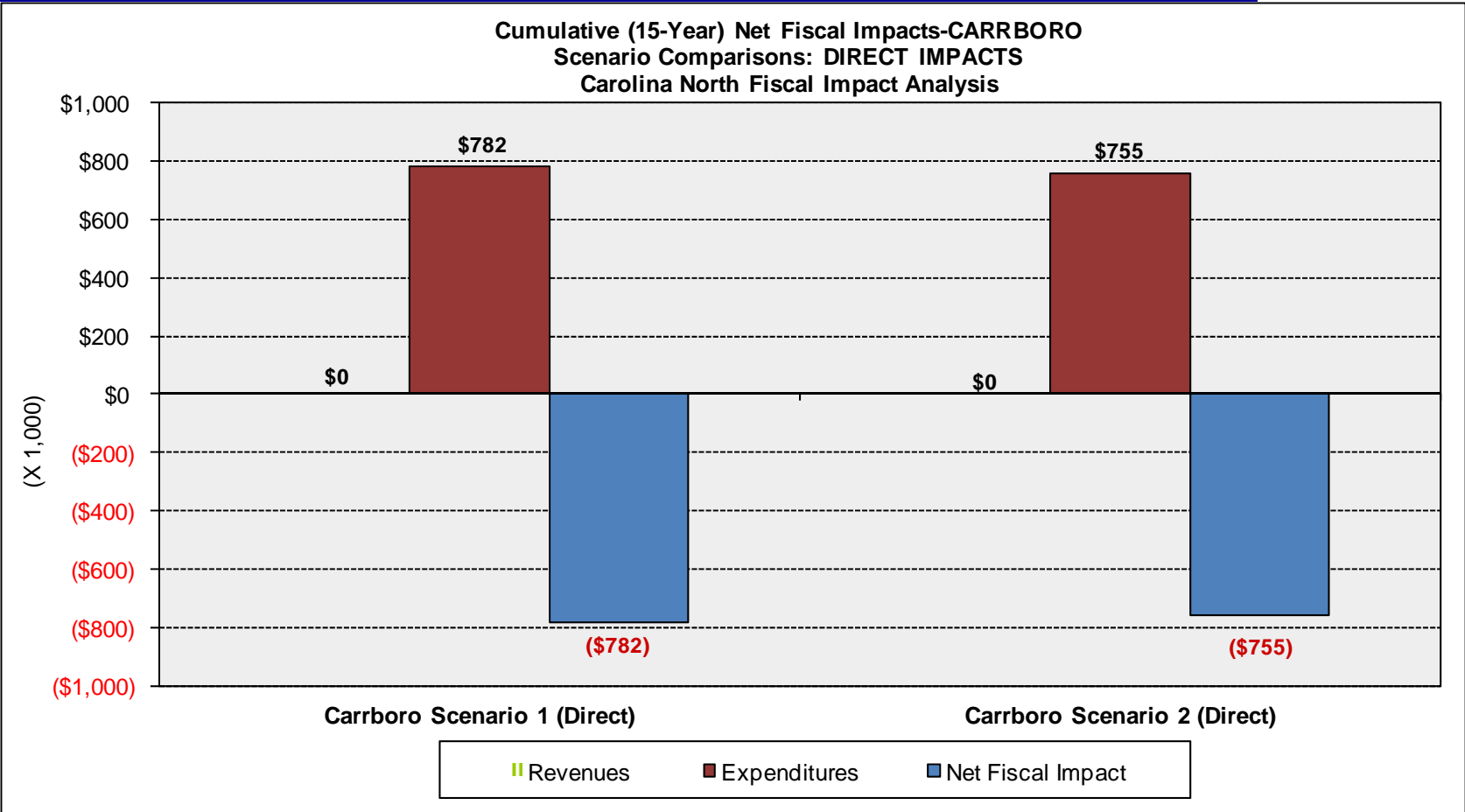
# *Key Findings: DIRECT Impacts to Orange County*

- Net surpluses to Orange County.
- Cumulative net surplus of \$13.8 million in Scenario 1 and \$16.4 million in Scenario 2. Average annual \$921,000 and \$1.1 million.
- Scenario 2 produces better results due to fewer students and later timing of residential development
- CHCCS Special District Tax improves results by over \$3 million cumulatively
- Results due to revenue structure and more nonresidential than residential development
- Relatively low school costs due to multifamily units, with lower student generation rates in CHCCS

# Results-Carrboro Annual



# Results-Carrboro Cumulative



# ***Key Findings: DIRECT Impacts to Carrboro***

- Cumulative net deficits of \$782,000 in Scenario 1 and \$755,000 in Scenario 2.
- Due to Town of Carrboro's contribution to Transit costs
- No direct revenues generated



# ***FISCAL IMPACT ANALYSIS RESULTS: Indirect Scenarios***



## ***Definition of INDIRECT Impacts***

- Fiscal impact of secondary, or spin-off, growth from 15-year Phase I Carolina North development
- Revenues and costs generated to each jurisdiction ***only from off-site growth***
- Two scenarios modeled: Indirect development from each Carolina North scenario
- Inputs are housing units, nonresidential square footage, jobs

# Scenarios: Residential Demand Factors (15-Year Total)

RESIDENTIAL	SCENARIO 1	SCENARIO 2
	<i>Indirect</i>	<i>Indirect</i>
<b><i>Housing Units</i></b>		
<i>Estimated Indirect Housing Units by Jurisdiction [1]</i>		
Chapel Hill	1,468	1,468
Carrboro	309	309
Other Orange County [2]	193	193
Orange County [3]	1,911	1,911
<b><i>Population [4]</i></b>		
Chapel Hill	3,024	3,024
Carrboro	743	743
Other Orange County	464	464
Orange County [3]	4,110	4,110
<b><i>Public School Students [5]</i></b>		
CHCCS	608	608
OCS	58	58

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

[2] Outside Towns of Chapel Hill and Carrboro

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

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

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

## Scenarios: Nonresidential Demand Factors (15-Year Total)

NONRESIDENTIAL	SCENARIO 1	SCENARIO 2
	<i>Indirect</i>	<i>Indirect</i>
<i>Projected Indirect New Jobs (in Region) [1]</i>	5,027	5,027
<i>Estimated Jobs in Study Jurisdictions</i>		
Chapel Hill	1,106	1,106
Carrboro	251	251
Other Orange County	251	251
Orange County [2]	1,564	1,564

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

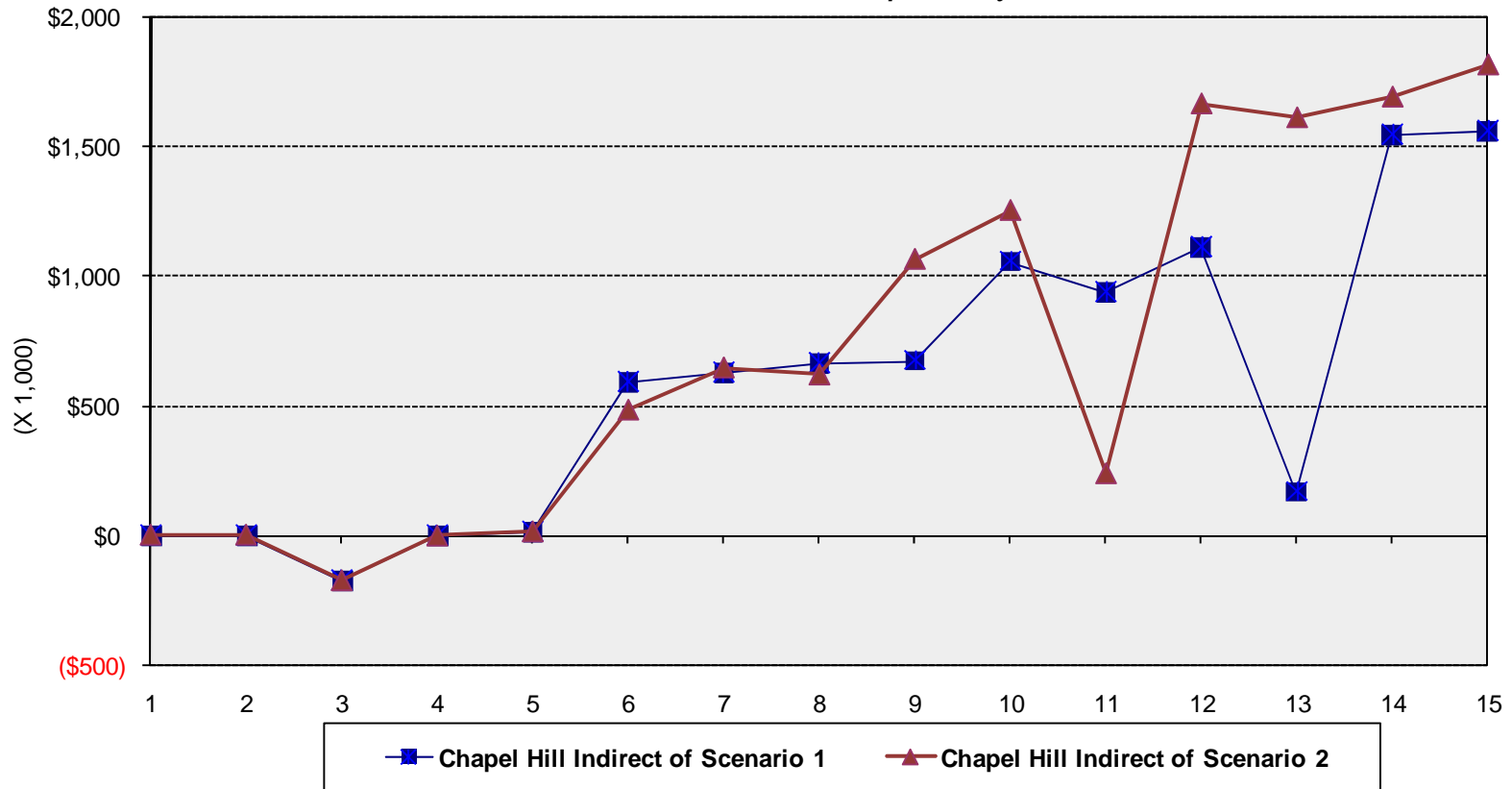
[2] For Indirect impact, 4 percent of total Chapel Hill employment is assumed to be outside of Orange County.

# ***INDIRECT Fiscal Impact Analysis Results***

- Shown in two ways for each jurisdiction:
  - Annual net results — year-to-year revenues minus expenditures
  - Cumulative net results — total revenues minus total operating and capital costs over 15-year period
- Net fiscal impacts from **new development** only

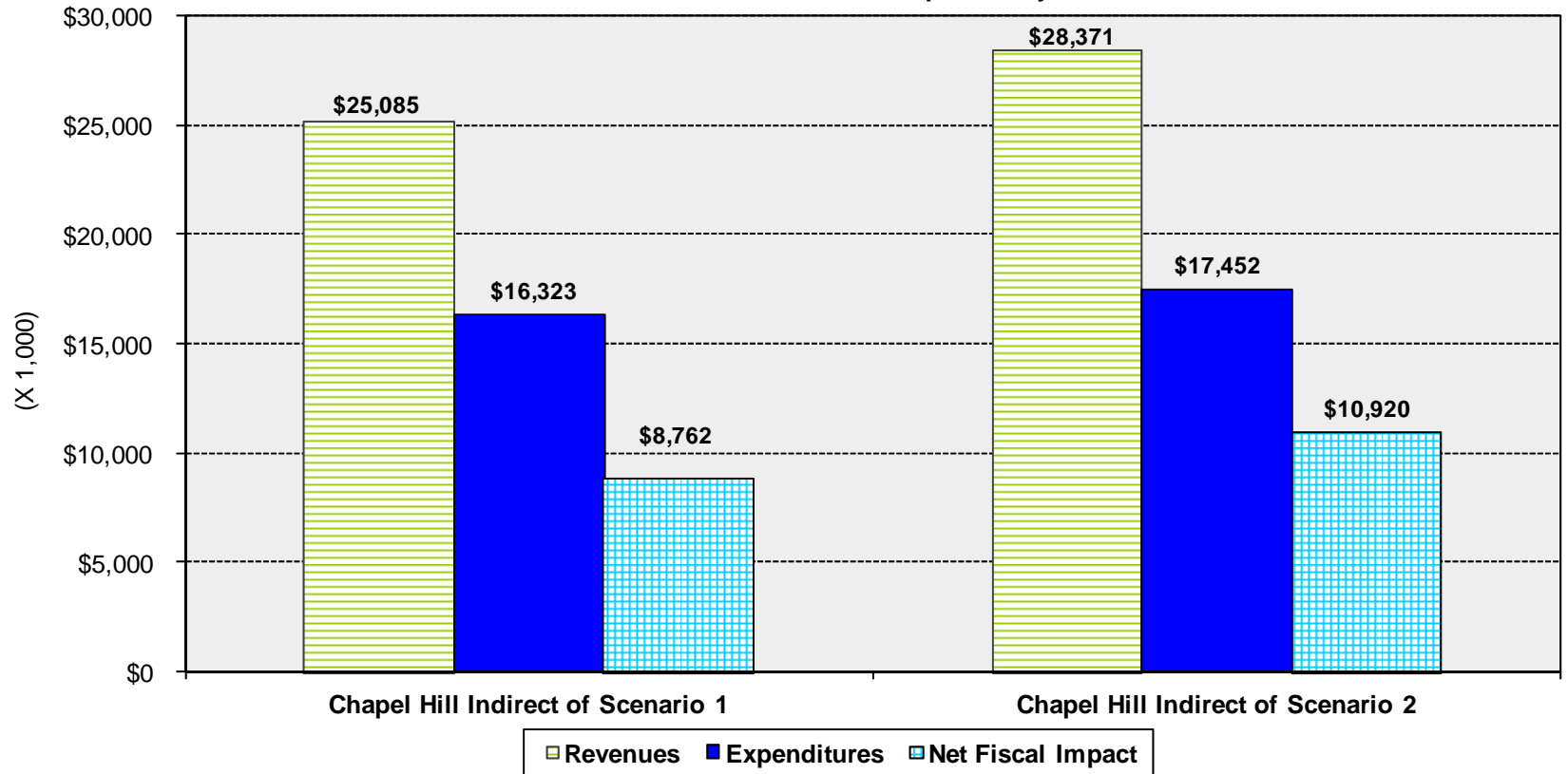
# Results-Chapel Hill Annual

Annual Net Fiscal Impacts-CHAPEL HILL  
 Scenario Comparisons: INDIRECT IMPACTS  
 Carolina North Fiscal Impact Analysis



# Results-Chapel Hill Cumulative

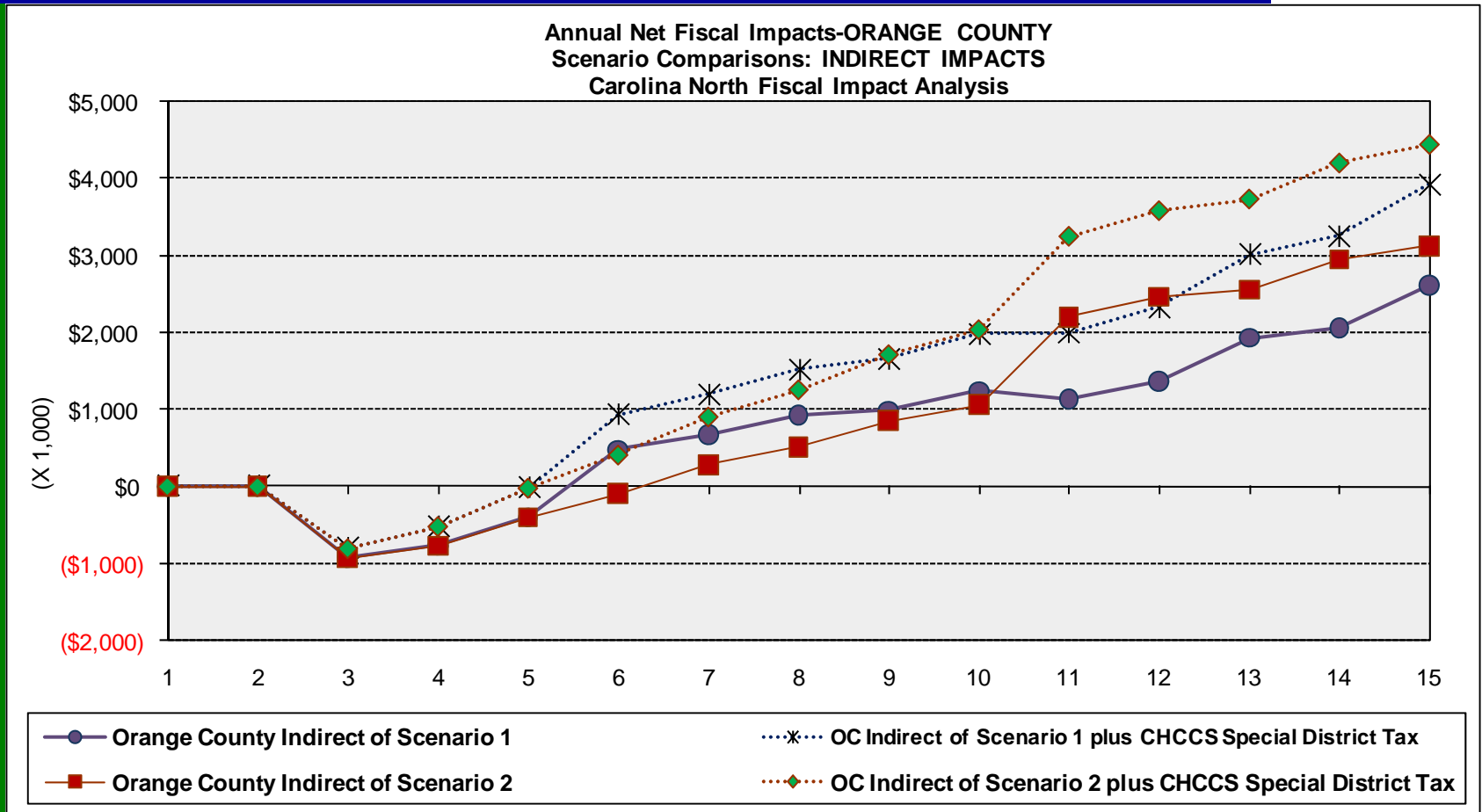
Cumulative (15-Year) Net Fiscal Impacts-CHAPEL HILL  
 Scenario Comparisons: INDIRECT IMPACTS  
 Carolina North Fiscal Impact Analysis



# ***Key Findings: INDIRECT Impacts to Chapel Hill***

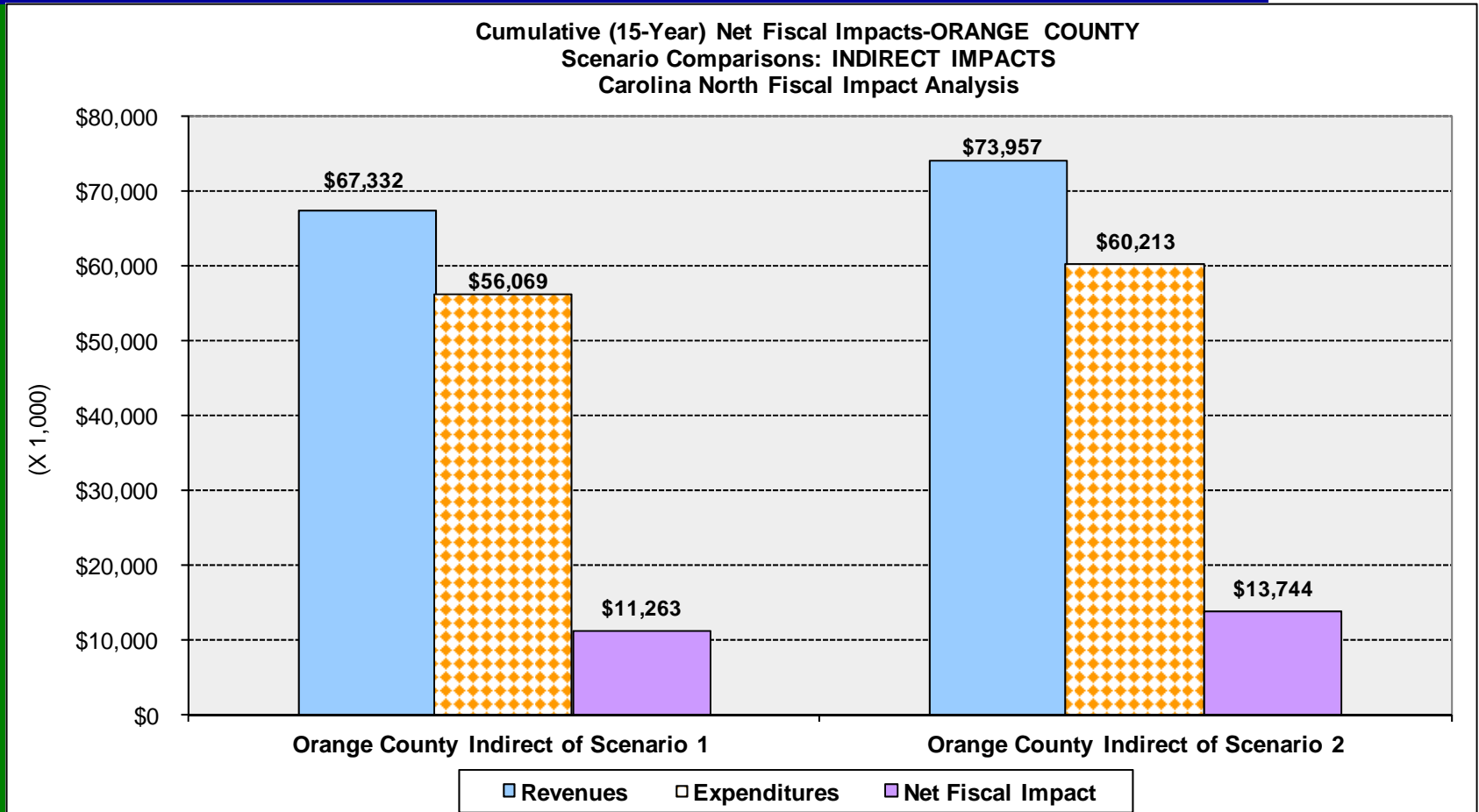
- Net surpluses to the Town of Chapel Hill with early years producing net deficits.
- Cumulative net surpluses are almost \$9 million (Scenario 1) and \$11 million (Scenario 2)
- Scenario 2 assumes earlier nonresidential development thus generating higher overall revenues and costs

# Results-Orange County Annual

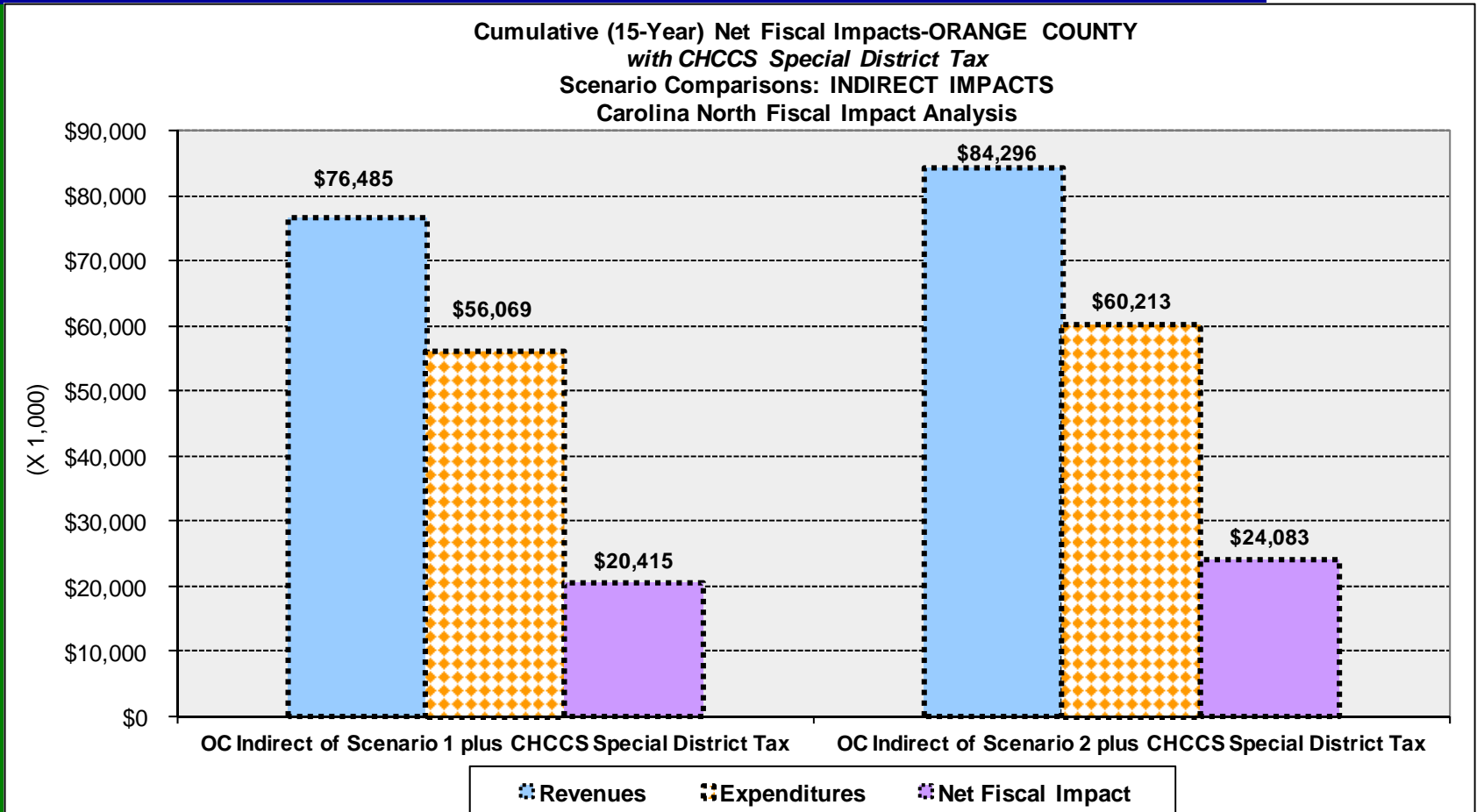




# Results-Orange County Cumulative



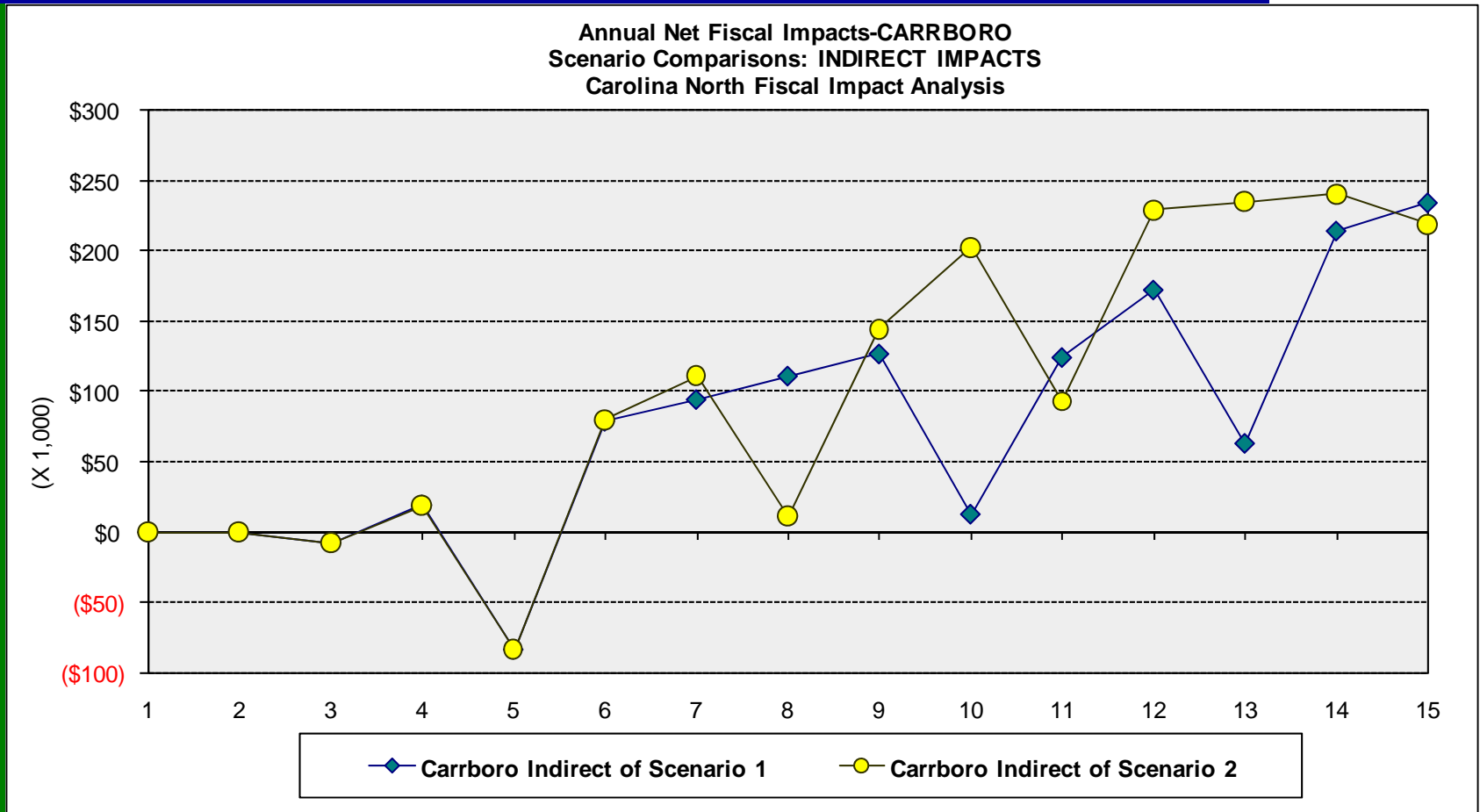
# Results-Orange County Cumulative with CHCCS Special District Tax



# ***Key Findings: INDIRECT Impacts to Orange County***

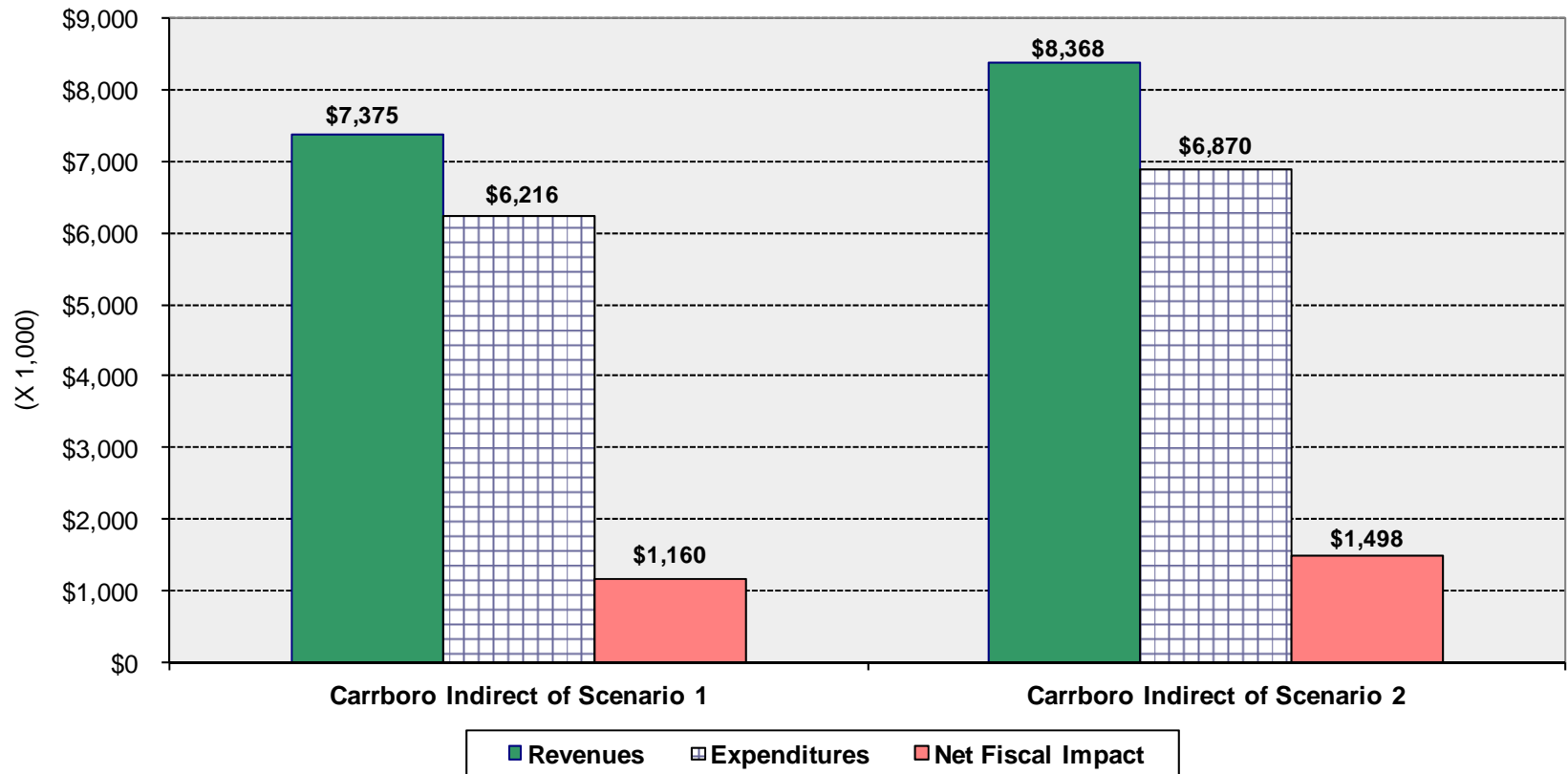
- Net surpluses to Orange County starting in Year 6.
- Initial years produce net deficits due to school and other costs without commensurate revenues
- Cumulative net surplus of \$11.3 million in Scenario 1 and \$13.7 million in Scenario 2. Average annual \$751,000 and \$916,000.
- CHCCS Special District Tax improves results by approximately \$9 to \$10 million cumulatively

# Results-Carrboro Annual



# Results-Carrboro Cumulative

Cumulative (15-Year) Net Fiscal Impacts-CARRBORO  
 Scenario Comparisons: INDIRECT IMPACTS  
 Carolina North Fiscal Impact Analysis



# ***Key Findings: INDIRECT Impacts to Carrboro***

- Fiscally neutral or net deficits in first 5 years
- Annual net surpluses starting in Year 6.
- Cumulative net surpluses generated of \$1.2 to \$1.5 million
- Transit costs are projected reflecting Carrboro's share of the cost



***COMBINED FISCAL IMPACT  
ANALYSIS RESULTS:  
Direct and Indirect Scenarios***

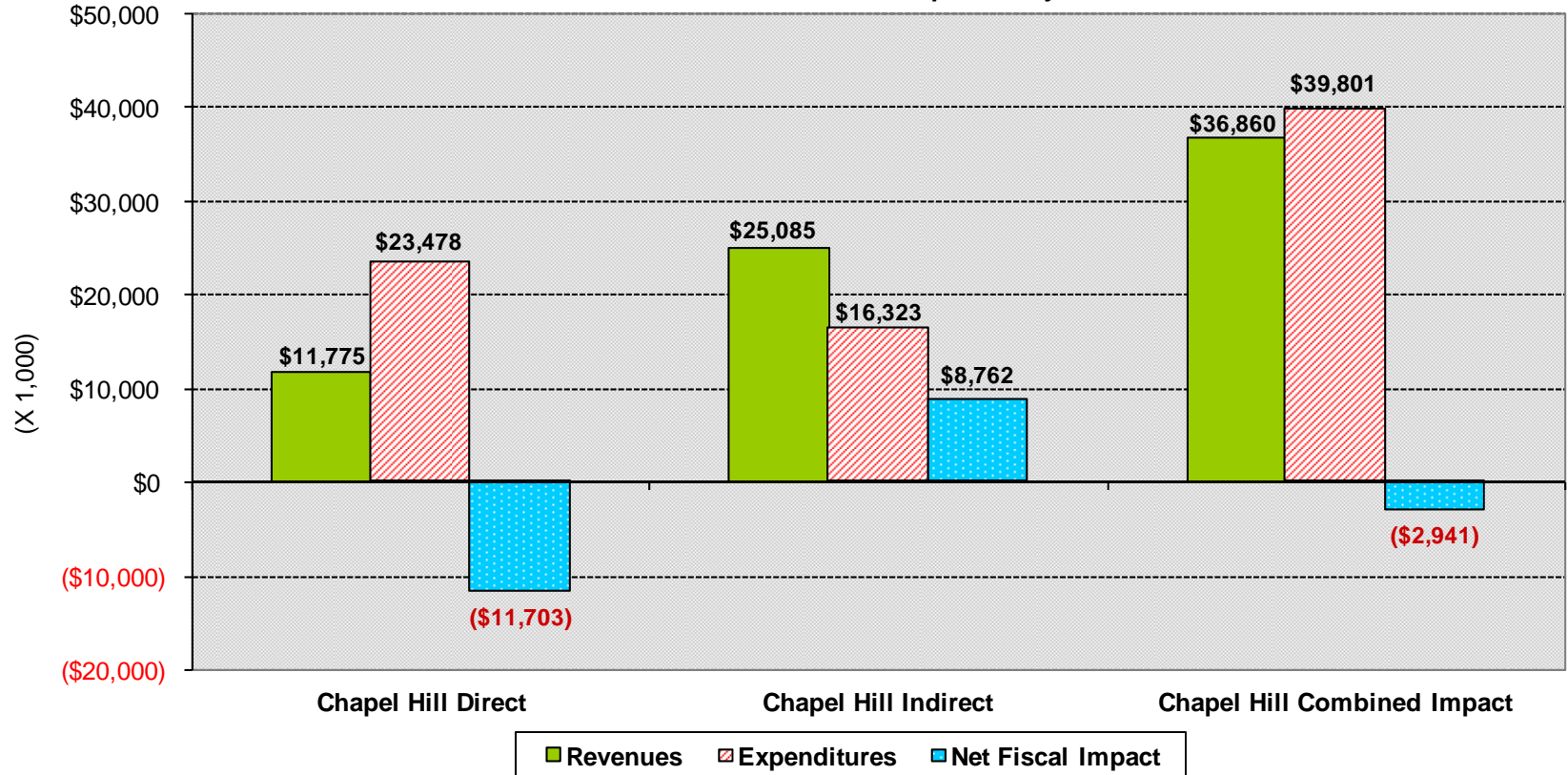
# ***COMBINED Fiscal Impact Analysis Results***

- Fiscal impact results from Direct and Indirect scenarios added together
- Shown for each jurisdiction:
  - Cumulative net results — total revenues minus total operating and capital costs — over 15-year period for each scenario separately
- Net fiscal impacts from **new development** only



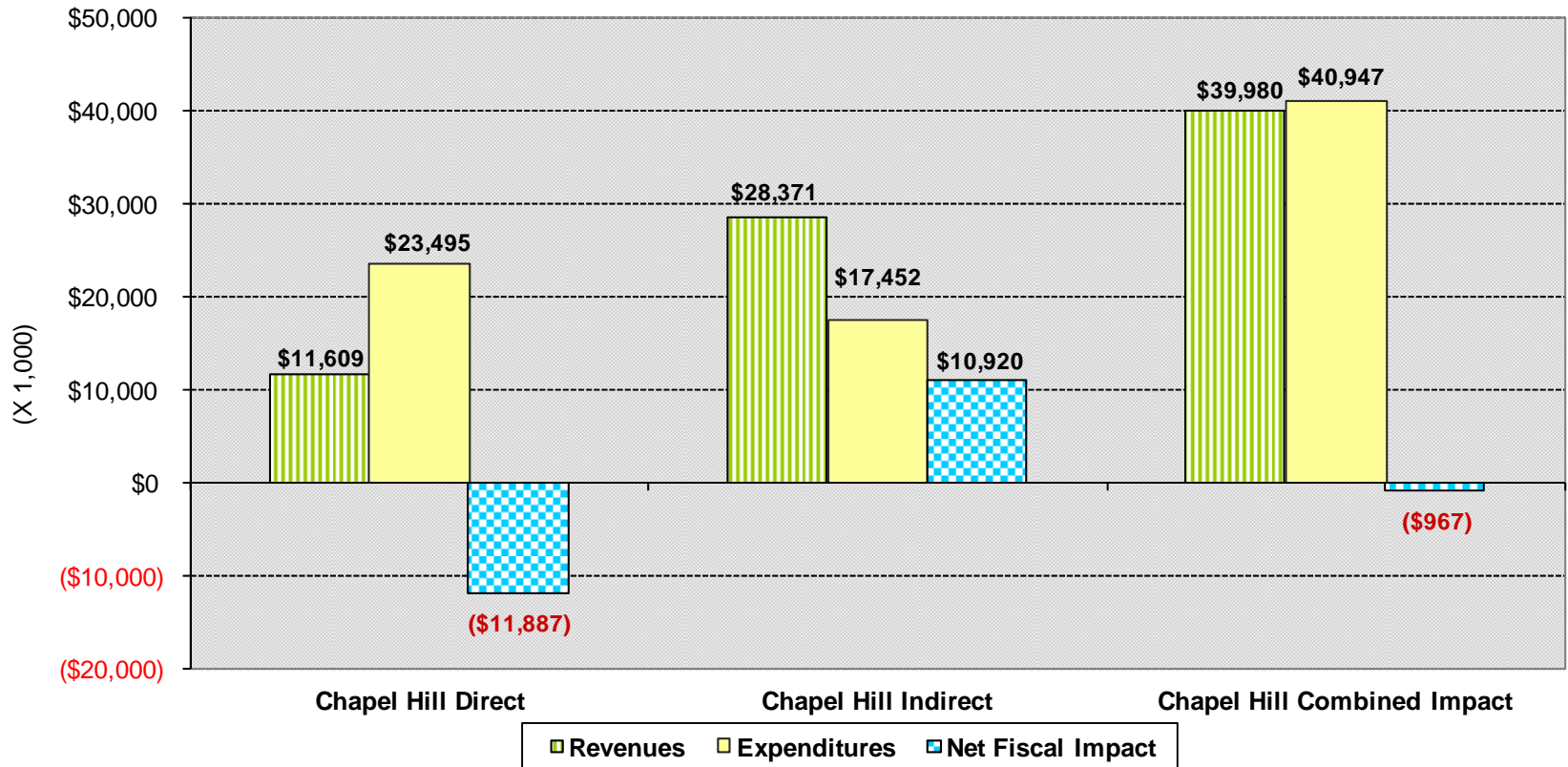
# Results-Chapel Hill Scenario 1

Cumulative (15-Year) Net Fiscal Impacts-CHAPEL HILL  
 DIRECT and INDIRECT FISCAL IMPACTS: Scenario 1  
 Carolina North Fiscal Impact Analysis



# Results-Chapel Hill Scenario 2

Cumulative (15-Year) Net Fiscal Impacts-CHAPEL HILL  
 DIRECT and INDIRECT FISCAL IMPACTS: Scenario 2  
 Carolina North Fiscal Impact Analysis

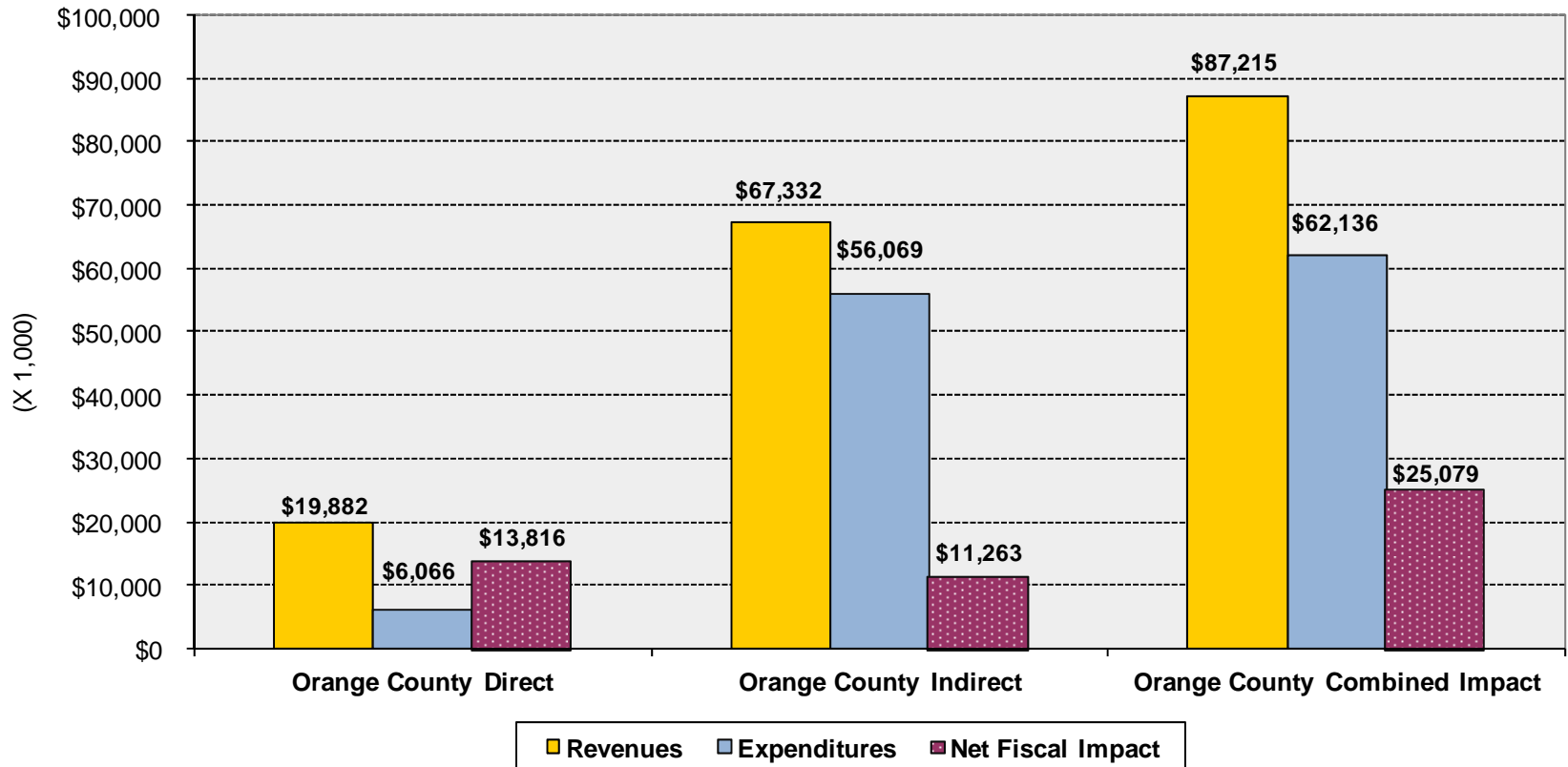


# *Key Findings: COMBINED Impacts to Chapel Hill*

- Net deficits to the Town of Chapel Hill.
- Cumulative net deficit is \$2.9 million in Scenario 1 and \$967,000 in Scenario 2
  - Scenario 2 produces a smaller net deficit due to earlier nonresidential development at Carolina North producing earlier indirect development.
  - Revenues and costs are higher in Scenario 2.
- Net surpluses generated by indirect impacts are not sufficient to offset direct deficits

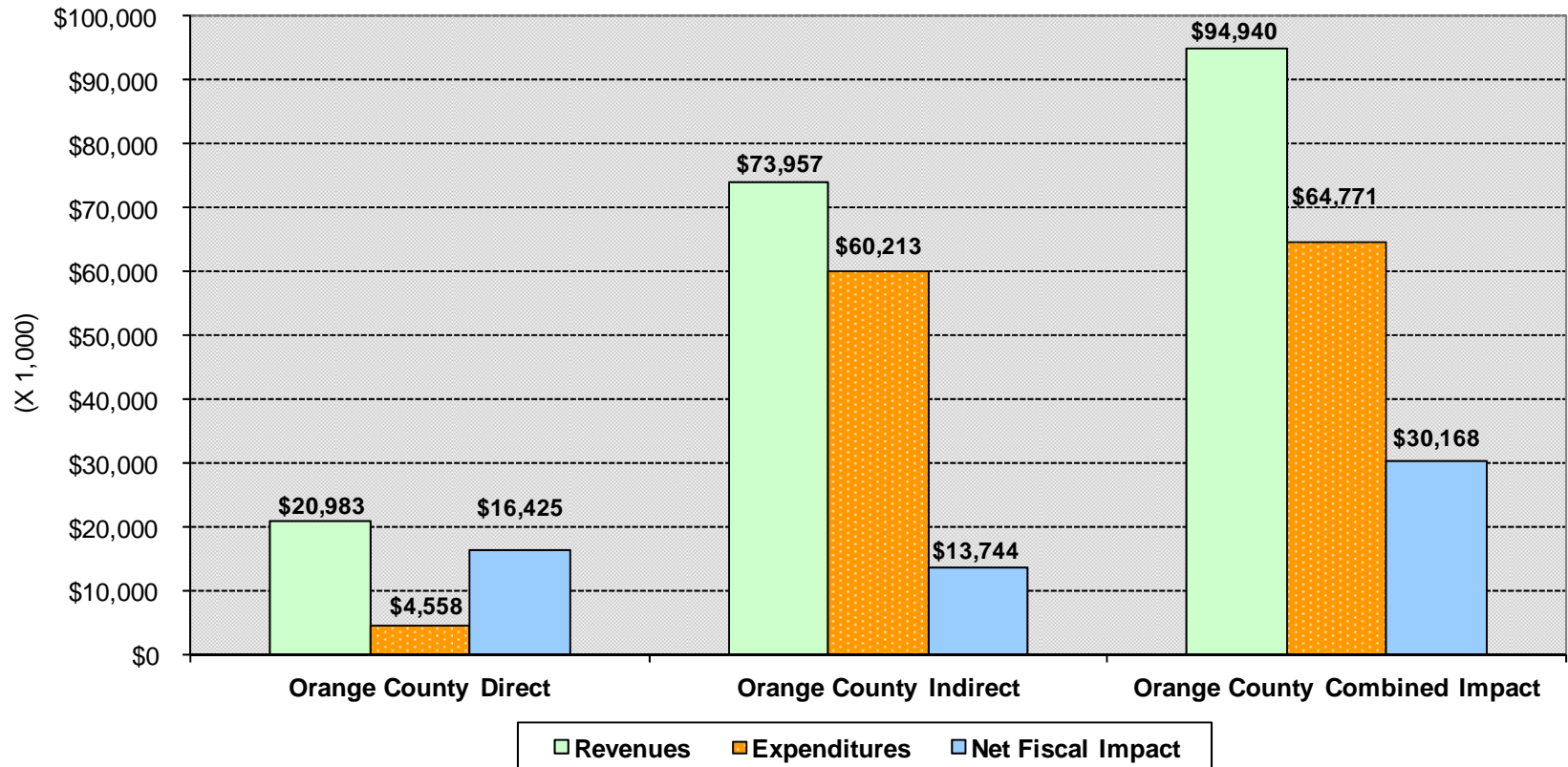
# Results-Orange County Scenario 1

Cumulative (15-Year) Net Fiscal Impacts-ORANGE COUNTY  
 DIRECT and INDIRECT FISCAL IMPACTS: Scenario 1  
 Carolina North Fiscal Impact Analysis



# Results-Orange County Scenario 2

Cumulative (15-Year) Net Fiscal Impacts-ORANGE COUNTY  
 DIRECT and INDIRECT FISCAL IMPACTS: Scenario 2  
 Carolina North Fiscal Impact Analysis

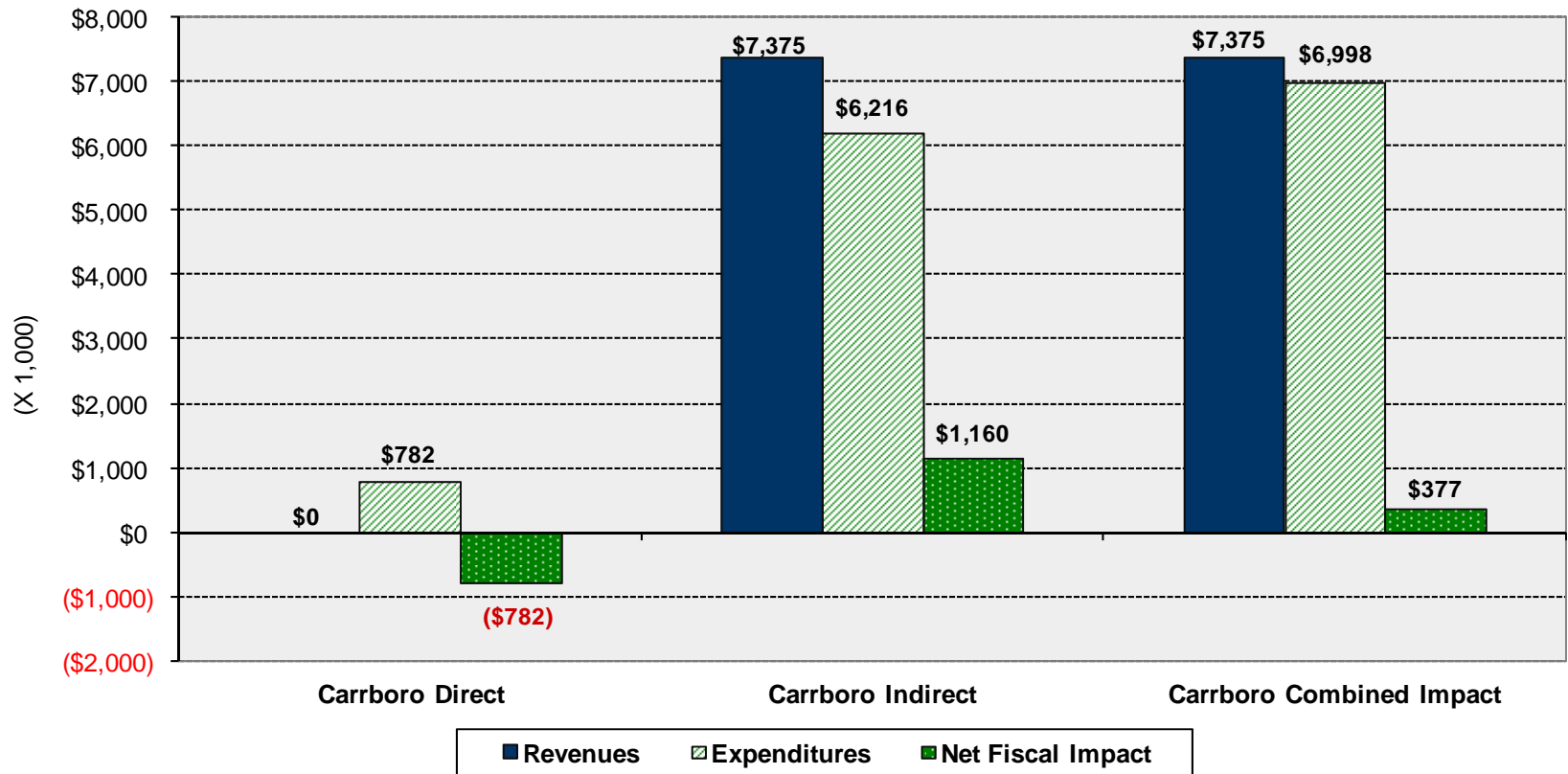


# *Key Findings: COMBINED Impacts to Orange County*

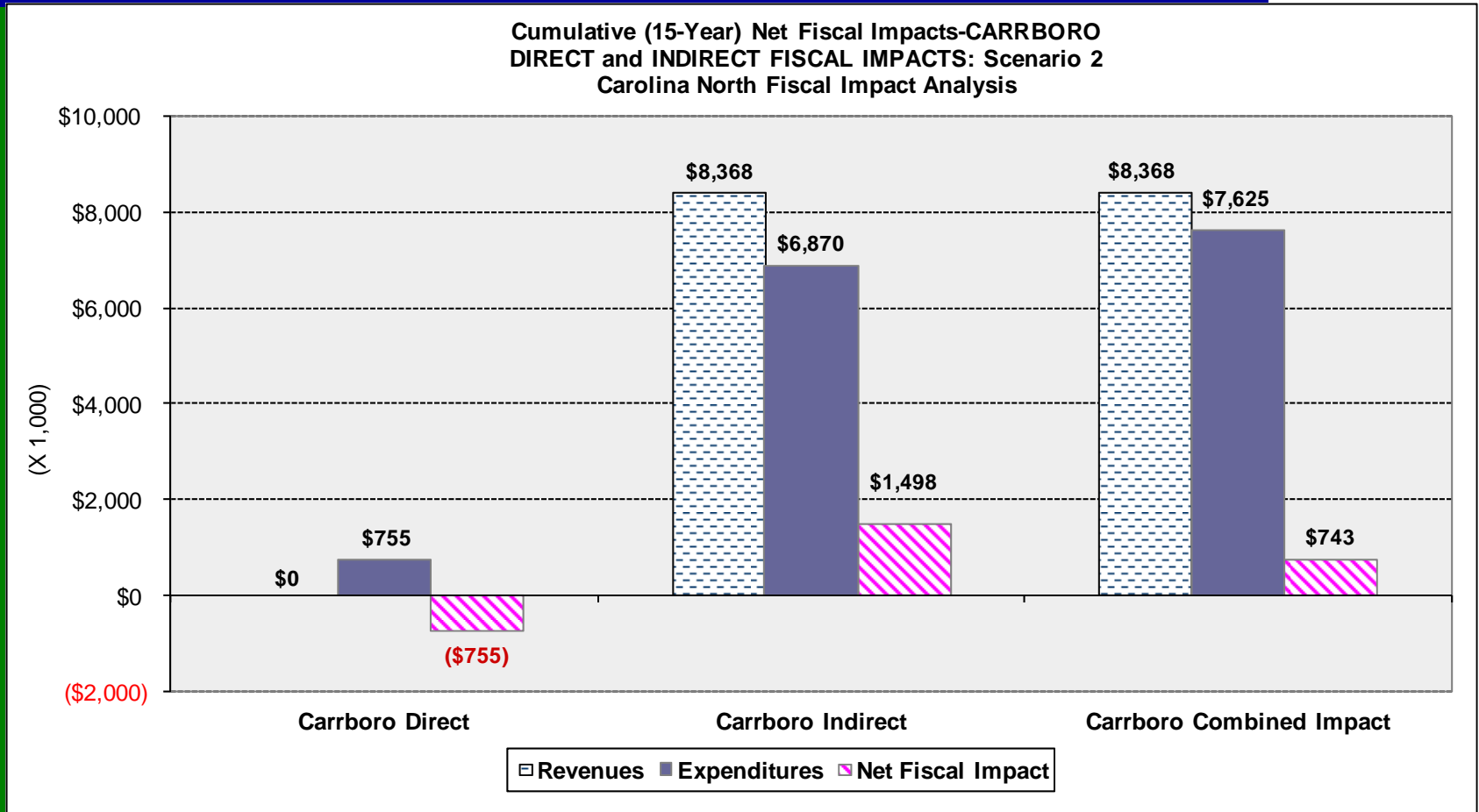
- Net surpluses to Orange County.
- Cumulative net surplus of \$25.1 million in Scenario 1 and \$30.2 million in Scenario 2.
- Average annual \$1.7 million (Scenario 1) and \$2 million (Scenario 2)
- CHCCS Special District Tax improves results by approximately \$12 to \$14 million cumulatively
- Schools operating and capital comprise 75 percent of total expenditures; reflects incremental operating and capital costs

# Results-Carrboro Scenario 1

Cumulative (15-Year) Net Fiscal Impacts-CARRBORO  
 DIRECT and INDIRECT FISCAL IMPACTS: Scenario 1  
 Carolina North Fiscal Impact Analysis



# Results-Carrboro Scenario 2





# ***Key Findings: COMBINED Impacts to Carrboro***


- 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.
- Combined revenues are sufficient to cover the costs generated by the impacts for both scenarios with the second scenario producing slightly better results.

# Overall Key Findings

- With the exception of the Town of Chapel Hill direct and combined impacts, the results indicate that revenue structures—majority property and sales taxes—are sufficient to cover the costs
- Property taxes account for largest share of revenue followed by sales taxes
  - To the extent property values fall and/or shifts to lower-priced housing and/or sales tax revenues do not recover to the level assumed in analysis, results will be affected
- Fiscal model will allow for sensitivity analyses of changing market conditions

# *Overall Key Findings*

- To the extent State and other non-local funds remain flat or decrease, local obligations will increase and will affect the results. Or levels of service will decrease.
- The fiscal model can be used to integrate findings from other studies (traffic impact analysis)
- The indirect scenarios rely on the assumption that future development patterns will mirror current conditions. If this is not the case, indirect results will be affected. The fiscal model can assist in subsequent analysis.

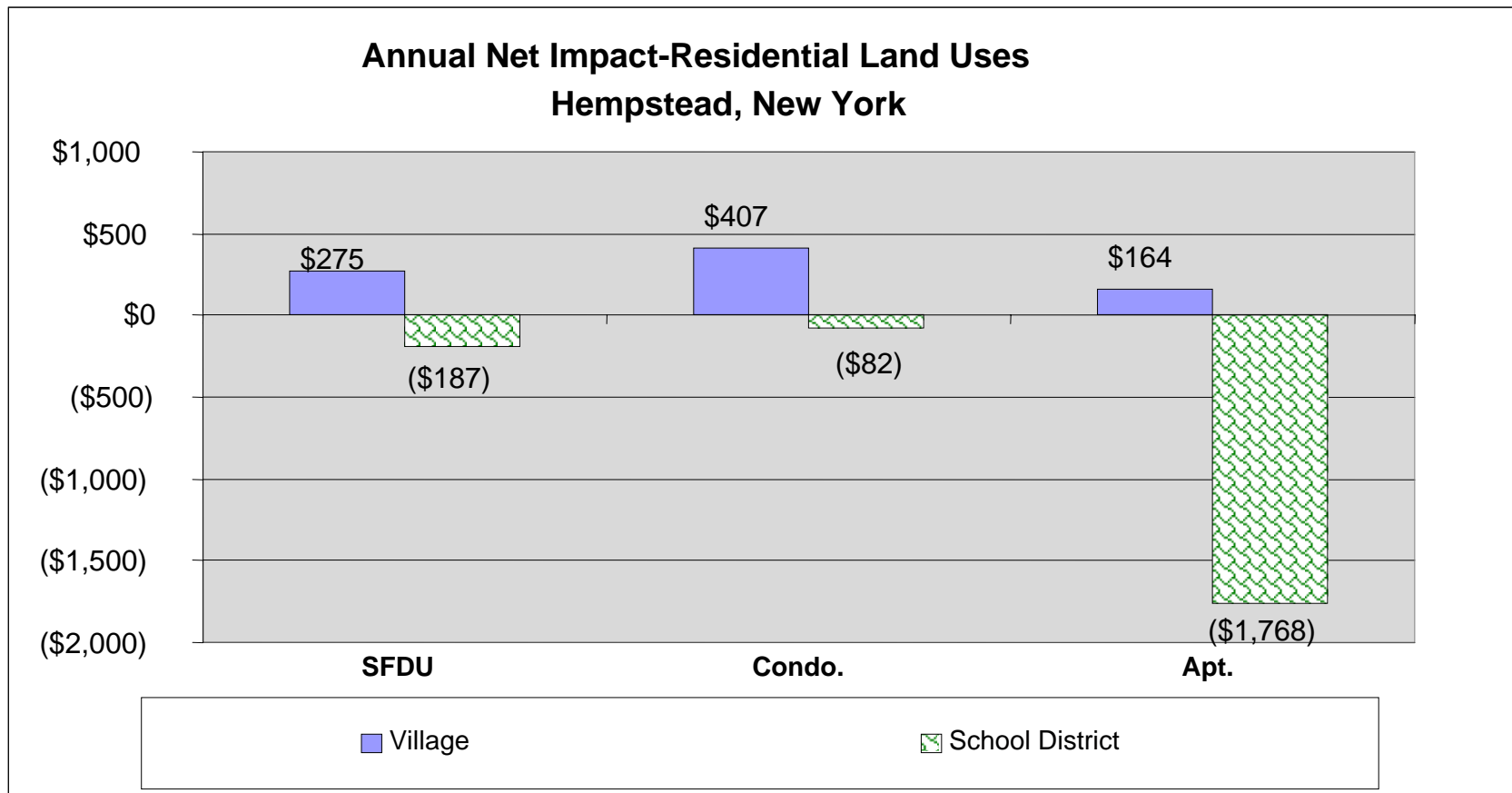


# ***APPENDIX: Supporting Material***

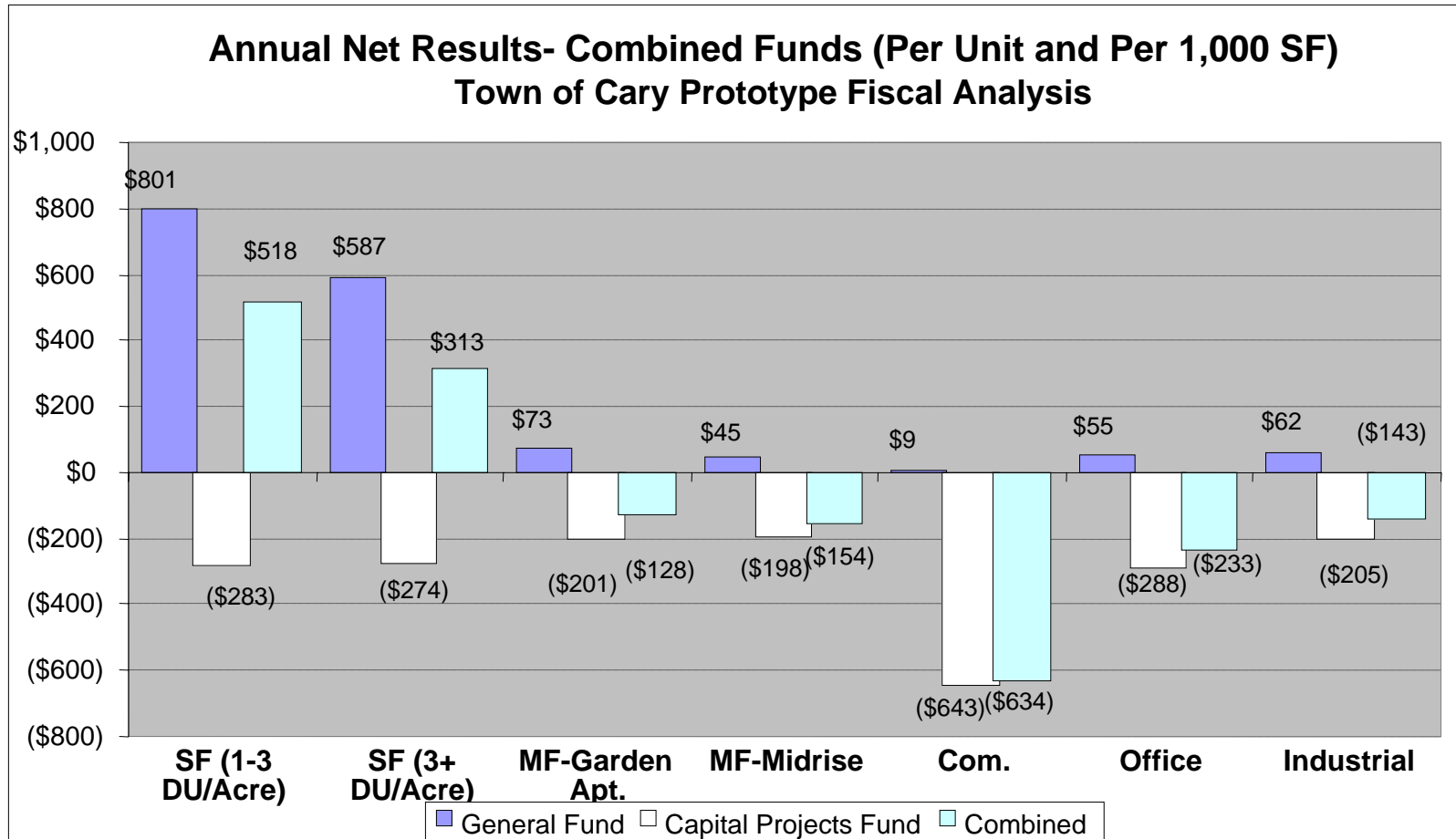
# *Influencing Factors in Fiscal Impact Analysis: Revenue Structure & Service Provision*

- Revenue structure
  - Sources
  - Distribution formulas
- Services provided
- Levels of service
- Infrastructure lifecycle
  - Existing capacities
- Characteristics of new development
  - Demographic
  - Socioeconomic

# Case Examples: Overlap of Governmental Entities

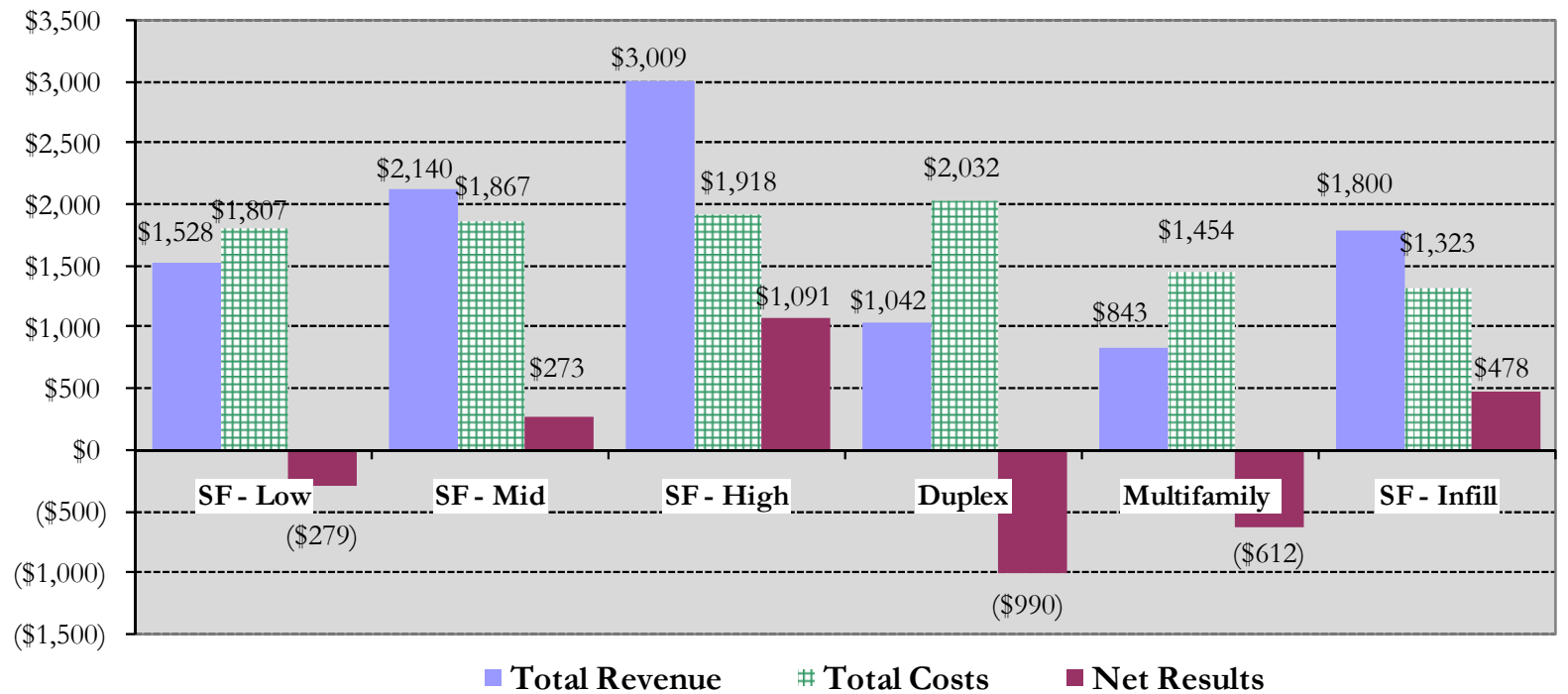


# Case Examples: North Carolina Town



# Case Examples: North Carolina City

Annual Net Results - Residential Prototypes  
 City of Wilson, NC Cost of Land Uses Fiscal Analysis  
 (Per Housing Unit)





# Carolina North Scenario 1

## SCENARIO 1: Phasing Balanced/Housing Early

Building	Total SF/Units	PHASING (Years)		
		2011-2015	2016-2020	2021-2025
Centers and Institutes I	122,000	122,000		
Centers and Institutes II	100,000		100,000	
Centers and Institutes III	93,000			93,000
Innovation Center	85,000	85,000		
Interdisciplinary Research Center	150,000			150,000
RENCI	170,000		170,000	
School of Law	200,000	200,000		
School of Public Health	155,000		155,000	
UNC Health Care System	200,000			200,000
Carolina North Services Facility	75,000	25,000	50,000	
<b>Subtotal University SF</b>	<b>1,350,000</b>	<b>432,000</b>	<b>475,000</b>	<b>443,000</b>
Corporate Partners I	150,000	150,000		
Corporate Partners II	128,000		128,000	
Corporate Partners III	157,000			157,000
Corporate Partners IV	90,000			90,000
<b>Subtotal Corporate SF</b>	<b>525,000</b>	<b>150,000</b>	<b>128,000</b>	<b>247,000</b>
Services (retail)	100,000	25,000	50,000	25,000
<b>TOTAL SF (excluding housing)</b>	<b>1,975,000</b>	<b>607,000</b>	<b>653,000</b>	<b>715,000</b>
Housing - University*	250 Units	125 Units	125 Units	0 Units
Housing - Private**	167 Units	83 Units	84 Units	0 Units
Total Housing Units	417 Units	208 Units	209 Units	0 Units
<b>Total SF with Housing</b>	<b>2,475,500</b>	<b>856,500</b>	<b>904,000</b>	<b>715,000</b>

\*Assumes graduate student housing owned by University and 1,000 square feet per unit

\*\*Assumes average size of 1,500 square feet per unit and 25% can be considered workforce units

**SCENARIO 2: Faster Absorption/Less Graduate Student Housing/Later Housing**

**Carolina  
North  
Scenario 2**

Building	Total SF/Units	PHASING (Years)		
		2011-2015	2016-2020	2021-2025
Centers and Institutes I	122,000	122,000		
Centers and Institutes II	100,000		100,000	
Centers and Institutes III	93,000			93,000
Innovation Center	85,000	85,000		
Interdisciplinary Research Center	150,000			150,000
RENCI	170,000		170,000	
School of Law	200,000	200,000		
School of Public Health	155,000		155,000	
UNC Health Care System	200,000			200,000
Carolina North Services Facility	75,000	25,000	50,000	
<b>Subtotal University SF</b>	<b>1,350,000</b>	<b>432,000</b>	<b>475,000</b>	<b>443,000</b>
Corporate Partners I	150,000	150,000		
Corporate Partners II	128,000		128,000	
Corporate Partners III	97,000			97,000
Corporate Partners IV	150,000		150,000	
<b>Subtotal Corporate SF</b>	<b>525,000</b>	<b>150,000</b>	<b>278,000</b>	<b>97,000</b>
Services	100,000	25,000	50,000	25,000
<b>TOTAL SF (excluding housing)</b>	<b>1,975,000</b>	<b>607,000</b>	<b>803,000</b>	<b>565,000</b>
Housing - University*	125 Units	0 Units	62 Units	63 Units
Housing - Private**	250 Units	0 Units	125 Units	125 Units
Total Housing Units	375 Units	0 Units	187 Units	188 Units
<b>Total SF with Housing</b>	<b>2,475,000</b>	<b>607,000</b>	<b>1,052,500</b>	<b>815,500</b>

\*Assumes graduate student housing owned by University and 1,000 square feet per unit

\*\*Assumes average size of 1,500 square feet per unit and 25% can be considered workforce units

# Cost Assumptions-Snapshot

	Chapel Hill		Orange County		Carrboro	
	Direct	Indirect	Direct	Indirect	Direct	Indirect
<b>General Government</b>	X	X	X	X		X
<b>Planning/Community Development</b>	X	X		X		X
<b>Public Works</b>						
Streets	X	X				X
Building and Grounds Maint	X	X		X		X
Engineering	X	X				
Inspections	X	X				
Solid Waste/Sanitation		X		X		X
<b>Public Safety</b>						
<i>Chapel Hill and Carrboro</i>						
Police	X (traffic)	X	See Sheriff	See Sheriff		X
Fire/EMS	X	X				X
<i>Orange County</i>						
Courts	na	na	X	X	na	na
Emergency Services-EMS	na	na	X	X	na	na
Emergency Services-Other	na	na		X	na	na
Sheriff	na	na	X	X	na	na
<b>Parks/Recreation</b>	X	X	X	X		X
<b>Library</b>	X	X		X		
<b>Transportation/Transit</b>	X	X			X	X
<b>Human Services</b>						
Aging	na	na		X	na	na
Health	na	na	X	X	na	na
Social Services	na	na		X	na	na
Other	na	na		X	na	na
<b>Schools</b>			X (CHCCS)	X (CHCCS & OCS)		

Note: "X" means there is an assumed impact on those services/facilities.