



# **Fiscal Impact Model**

## **Orange County, North Carolina**

Presentation to

**Orange County Board of Commissioners**

February 17, 2022

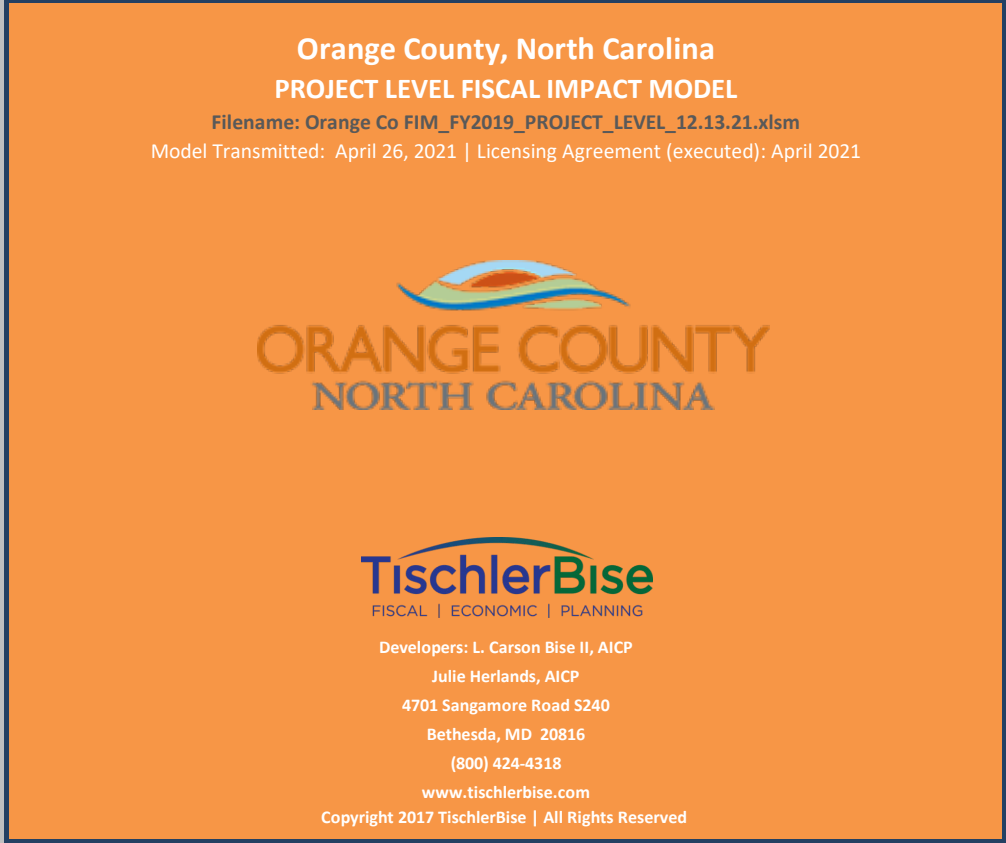
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TischlerBise.com

# Fiscal Impact Analysis in General


- Evaluating cash flow to the public sector
  - Do revenues that are generated from a development cover cost impacts?
- Based on a jurisdiction's current level of service—reflected in current budget
- Intent is to help achieve planning and fiscal goals by understanding the connection between land use decisions and revenue generation/operating impacts
  - Models are built to address specific questions
- *Fiscal impact analysis differs from Economic Impact Analysis and Municipal Budgeting*

# Orange County Fiscal Impact Model


- Evaluate fiscal impacts of land use changes
- Multiple scenarios allow testing and comparing
  - Property values
  - Timing
  - Type of land uses
- Inform land use decisions and test “what if” alternatives
- Plan for short- and long-term operational and capital improvement impacts



Orange County, North Carolina  
PROJECT LEVEL FISCAL IMPACT MODEL  
Filename: Orange Co FIM\_FY2019\_PROJECT\_LEVEL\_12.13.21.xlsm  
Model Transmitted: April 26, 2021 | Licensing Agreement (executed): April 2021



ORANGE COUNTY  
NORTH CAROLINA



FISCAL | ECONOMIC | PLANNING

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# Key Assumptions

- Orange County Fiscal Year 2019 Adopted Budget used to develop the initial model
- Revenues and Costs to Orange County are modeled
  - General Fund, Special Revenue Funds, Fire Districts, Schools (County-funded portion)
  - Capital expenditures for development's share of expanded facilities
- Current dollars are used to get a snapshot result (no inflation assumed)
- Model reflects location-specific features: Values, school district, fire district, park district

# Key Assumptions: Residential Default Prototypes

Residential Land Use Prototypes	Avg. Assessed Value Per Unit [1]	Avg. Taxable Value Per Unit (rounded) [2]	Persons per Unit [3]	Vehicle Trip generation rate [4]	Trip Adj. Factor % [5]	Student Generation Rate [6]	School System
Single Family : Unincorporated Orange County (Improved)	\$495,382	\$495,000	2.36	9.40	50%	0.44	OCS
Single Family : Unincorporated Orange County (Unimproved)	\$39,200	\$39,000	0.00	0.00	0.00	0.00	OCS
Single Family : Hillsborough (Improved)	\$429,758	\$430,000	2.47	8.40	50%	0.44	OCS
Single Family : Hillsborough (Unimproved)	\$187,500	\$190,000	0.00	0.00	0.00	0.00	OCS
Single Family : Chapel Hill/Carrboro (Improved)	\$504,803	\$500,000	2.62	8.30	50%	0.84	CHCCS
Single Family : Chapel Hill/Carrboro (Unimproved)	\$155,100	\$160,000	0.00	0.00	0.00	0.00	CHCCS
Condo: Unincorporated Orange County (Improved)	\$214,700	\$210,000	1.60	5.00	50%	0.17	OCS
Condo: Hillsborough (Improved)	\$0	\$0	1.48	4.30	50%	0.17	OCS
Condo: Chapel Hill/Carrboro (Improved)	\$268,016	\$270,000	1.79	5.65	50%	0.18	CHCCS
Multifamily Apts: Unincorporated Orange County (Improved)	\$121,718	\$120,000	1.60	5.00	50%	0.17	OCS
Multifamily Apts: Hillsborough (Improved)	\$66,486	\$70,000	1.48	4.30	50%	0.17	OCS
Multifamily Apts: Chapel Hill/Carrboro (Improved)	\$149,314	\$150,000	1.79	5.65	50%	0.18	CHCCS
Manufactured Home Park: Unincorporated Orange County (Improved)	\$246,331	\$246,000	2.25	9.40	50%	0.52	OCS
Manufactured Home Park: Hillsborough (Improved)	\$115,225	\$115,000	2.37	8.40	50%	0.52	OCS
Manufactured Home Park: Chapel Hill/Carrboro (Improved)	\$0	\$0	2.49	8.30	50%	0.78	CHCCS

[1] Orange County Assessor data accessed online at <https://property.spatalest.com/nc/orange/#/>; residential unit values built within past 5 years.

[2] Rounded value

[3] US Census

[4] Institute of Transportation Engineers (ITE), 2017

[5] Trip rates are adjusted to allocate between origin (residential) and destination (nonresidential)

[6] Orange County, NC, Schools Adequate Public Facilities Ordinance Annual Report 2019

Sources: Orange County; ITE; TischlerBise

# Key Assumptions: Nonresidential Default Prototypes

	Avg. Assessed Value Per Sq. Ft. [1]	Avg. Taxable Value Per Sq. Ft. (rounded) [1]	Employees per 1,000 Sq. Ft. [2]	Vehicle Trips per 1,000 Sq. Ft. [3]	Trip Adj. Factor % [4]	Additional Trip Adj. Factor % [5]	Adjusted Trip Rate per 1,000 Sq. Ft.	ITE Code [3]
<b>Nonresidential Land Use Prototypes</b>								
Retail: Unincorporated Orange County (Improved)	\$109.65	\$110.00	2.34	37.75	39%	100%	14.72	820
Retail: Unincorporated Orange County (Unimproved)*	\$46.10	\$46.00	2.34	37.75	39%	100%	14.72	820
Retail: Hillsborough (Improved)	\$102.31	\$102.00	2.34	37.75	39%	100%	14.72	820
Retail: Hillsborough (Unimproved)	\$26.60	\$27.00	2.34	37.75	39%	100%	14.72	820
Retail: Chapel Hill/Carrboro (Improved)	\$157.15	\$157.00	2.34	37.75	39%	100%	14.72	820
Retail: Chapel Hill/Carrboro (Unimproved)	\$24.78	\$25.00	2.34	37.75	39%	100%	14.72	820
Office: Unincorporated Orange County (Improved)	\$126.53	\$127.00	2.97	9.74	50%	100%	4.87	710
Office: Unincorporated Orange County (Unimproved)	\$37.67	\$38.00	2.97	9.74	50%	100%	4.87	710
Office: Hillsborough (Improved)	\$199.98	\$200.00	2.97	9.74	50%	100%	4.87	710
Office: Hillsborough (Unimproved)	\$33.14	\$33.00	2.97	9.74	50%	100%	4.87	710
Office: Chapel Hill/Carrboro (Improved)	\$221.05	\$221.00	2.97	9.74	50%	100%	4.87	710
Office: Chapel Hill/Carrboro (Unimproved)	\$45.57	\$46.00	2.97	9.74	50%	100%	4.87	710
Industrial: Unincorporated Orange County (Improved)	\$75.12	\$75.00	1.63	4.96	50%	100%	2.48	310
Industrial: Unincorporated Orange County (Unimproved)	\$29.03	\$29.00	1.63	4.96	50%	100%	2.48	310
Industrial: Hillsborough (Improved)	\$86.37	\$86.00	1.63	4.96	50%	100%	2.48	310
Industrial: Hillsborough (Unimproved)	\$13.41	\$13.00	1.63	4.96	50%	100%	2.48	310
Industrial: Chapel Hill/Carrboro (Improved)	\$237.10	\$237.00	1.63	4.96	50%	100%	2.48	310
Industrial: Chapel Hill/Carrboro (Unimproved)	\$177.64	\$178.00	1.63	4.96	50%	100%	2.48	310
Institutional: Unincorporated Orange County (Improved)	\$102.35	\$0.00	0.78	26.04	39%	100%	10.16	520/530
Institutional: Unincorporated Orange County (Unimproved)	\$10.62	\$0.00	0.78	26.04	39%	100%	10.16	520/530
Institutional: Hillsborough (Improved)	\$103.27	\$0.00	0.78	26.04	39%	100%	10.16	520/530
Institutional: Hillsborough (Unimproved)	\$24.42	\$0.00	0.78	26.04	39%	100%	10.16	520/530
Institutional: Chapel Hill/Carrboro (Improved)	\$195.07	\$0.00	0.78	26.04	39%	100%	10.16	520/530
Institutional: Chapel Hill/Carrboro (Unimproved)	\$103.69	\$0.00	0.78	26.04	39%	100%	10.16	520/530

[1] Orange County Assessor data accessed online at <https://property.spatalest.com/nc/orange/#/>; nonresidential prototypes built within past 20 years (to ensure adequate sample size).

\* Unimproved property reflects land value only

[2] Employees per development unit (1,000sf) calculated from trip rates, ITE 2017

[3] Institute of Transportation Engineers (ITE), 2017

[4] Trip rates are adjusted to allocate between origin (residential) and destination (nonresidential)

[5] Place for additional adjustment to account for transit accessibility, multimodal access, and multiple stops per trip, if applicable.

Sources: Orange County; ITE; TischlerBise

# Example: Fiscal Impact of Residential Development in Unincorporated County

- 20 Housing Units
  - Single Family
  - Condos
  - Multifamily
- Location: Unincorporated County
- Schools: Orange County Schools
- Fire: Orange Rural Fire
- Parks: Cheeks/Hillsborough District Park

# Example: Residential in Uninc. County: Summary

## PROJECT SUMMARY

### SCENARIO COMPARISONS

### RESIDENTIAL IN UNINCORPORATED COUNTY

	Scenario 1: 20 SFD Units: Uninc.; OCS; Orange Rural Fire; Cheeks/Hills Park District	Scenario 2: 20 Condo Units: Uninc.; OCS; Orange Rural Fire; Cheeks/Hills Park District	Scenario 3: 20 MF Units: Uninc.; OCS; Orange Rural Fire; Cheeks/Hills Park District
<b>RESIDENTIAL:</b>			
	<i>[20-Year Net New Growth]</i>	<i>[20-Year Net New Growth]</i>	<i>[20-Year Net New Growth]</i>
<b>Uninc or Inc.</b>	Uninc. Co.	Uninc. Co.	Uninc. Co.
<b>School District</b>	OCS	OCS	OCS
<b>Fire District</b>	Orange Rural	Orange Rural	Orange Rural
<b>Park Distict</b>	Cheeks / Hillsborough	Cheeks / Hillsborough	Cheeks / Hillsborough
<b>HOUSING UNITS</b>	20	20	20
<b>POPULATION</b>	47	32	32
<b>ENROLLMENT</b>	9	3	3
<b>NONRESIDENTIAL SQUARE FEET</b>	0	0	0
<b>JOBS</b>	0	0	0
<b>RESIDENTIAL TAXABLE PROPERTY VALUE</b>	\$9,900,000	\$4,200,000	\$2,400,000
<b>NONRESIDENTIAL TAXABLE PROPERTY VALUE</b>	\$0	\$0	\$0
<b>TOTAL TAXABLE PROPERTY VALUE</b>	\$9,900,000	\$4,200,000	\$2,400,000

MODEL VERSION:

Filename: Orange Co FIM\_FY2019\_PROJECT\_LEVEL\_v6\_Test ResidCH.xlsm

RUN DATE:

12/2/2020

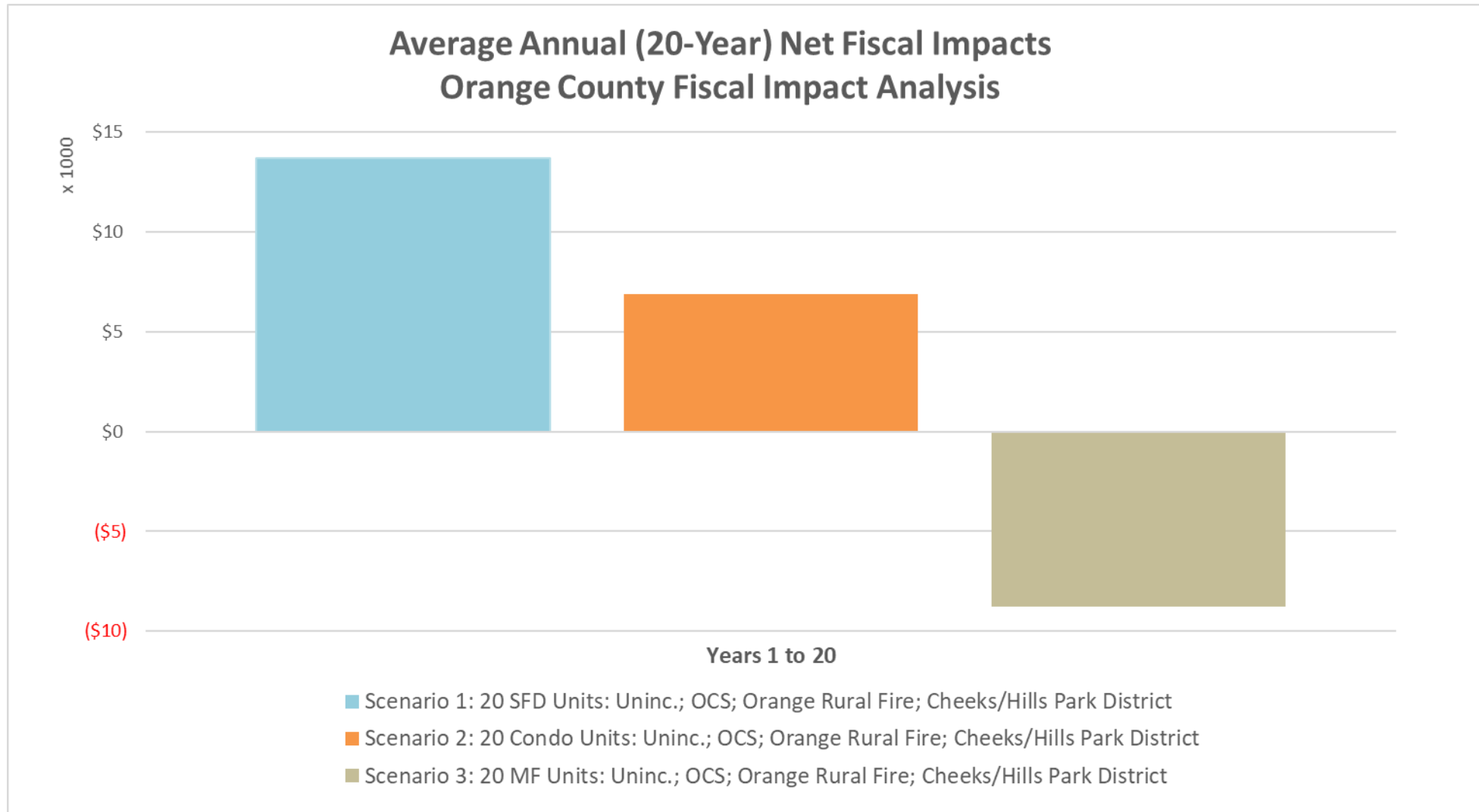


# Example: Residential in Uninc. County: Fiscal Results

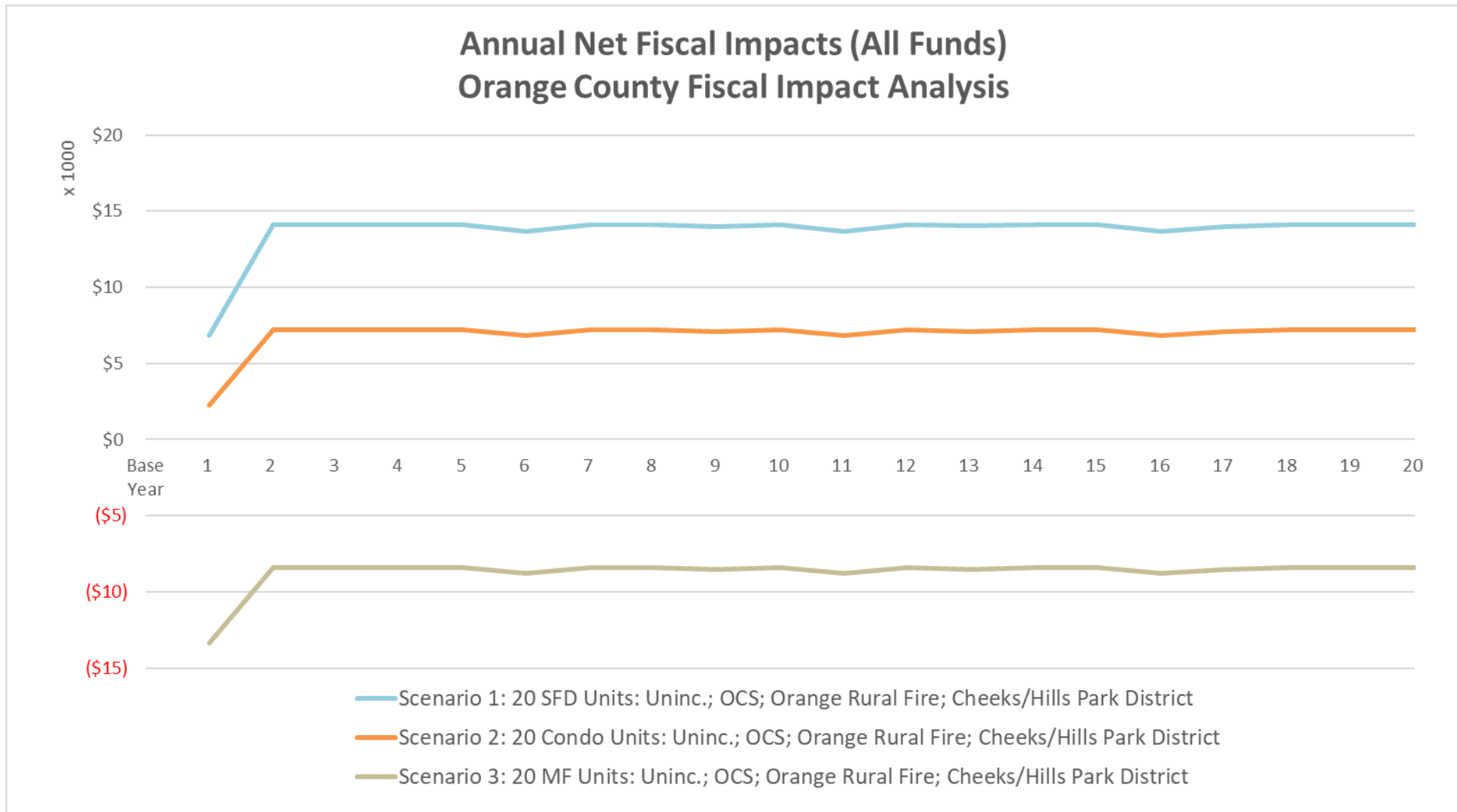
<b>NET FISCAL IMPACT: 20-Year Cumulative Results</b>			
<b>CUMULATIVE - Scenario Comparisons</b>			
<b>Orange County Fiscal Impact Model</b>	<b>RESIDENTIAL IN UNINCORPORATED COUNTY</b>		
<b>Category</b>	<b>SCENARIO</b>		
	<b>Scenario 1: 20 SFD Units: Uninc.; OCS; Orange Rural Fire; Cheeks/Hills Park District</b>	<b>Scenario 2: 20 Condo Units: Uninc.; OCS; Orange Rural Fire; Cheeks/Hills Park District</b>	<b>Scenario 3: 20 MF Units: Uninc.; OCS; Orange Rural Fire; Cheeks/Hills Park District</b>
<i>Grand Total</i>			
<b>TOTAL REVENUES</b>	\$1,876,792	\$836,392	\$523,948
<b>TOTAL EXPENDITURES</b>	\$1,603,388	\$698,930	\$698,930
<b>NET FISCAL IMPACT</b>	<b>\$273,404</b>	<b>\$137,462</b>	<b>(\$174,982)</b>
<i>MODEL VERSION:</i>	<i>Filename: Orange Co FIM_FY2019_PROJECT_LEVEL_v6_Test ResidUninc_v2.xlsm</i>		
<i>RUN DATE:</i>	<i>12/2/2020</i>		

**Results are 20-Year  
Cumulative Totals**

# Example: Residential in Uninc. County: Fiscal Results



# Example: Residential in Uninc. County: Fiscal Results



# Example: Fiscal Impact of Nonresidential Development in Uninc. County

- Nonresidential Sample
  - 100,000 sf retail
  - 50,000 sf office
  - 200,000 sf industrial
- Location: Unincorporated County
- Schools: N/A
- Fire: Orange Rural Fire
- Parks: N/A

# Example: Nonresid. in Uninc. County: Summary

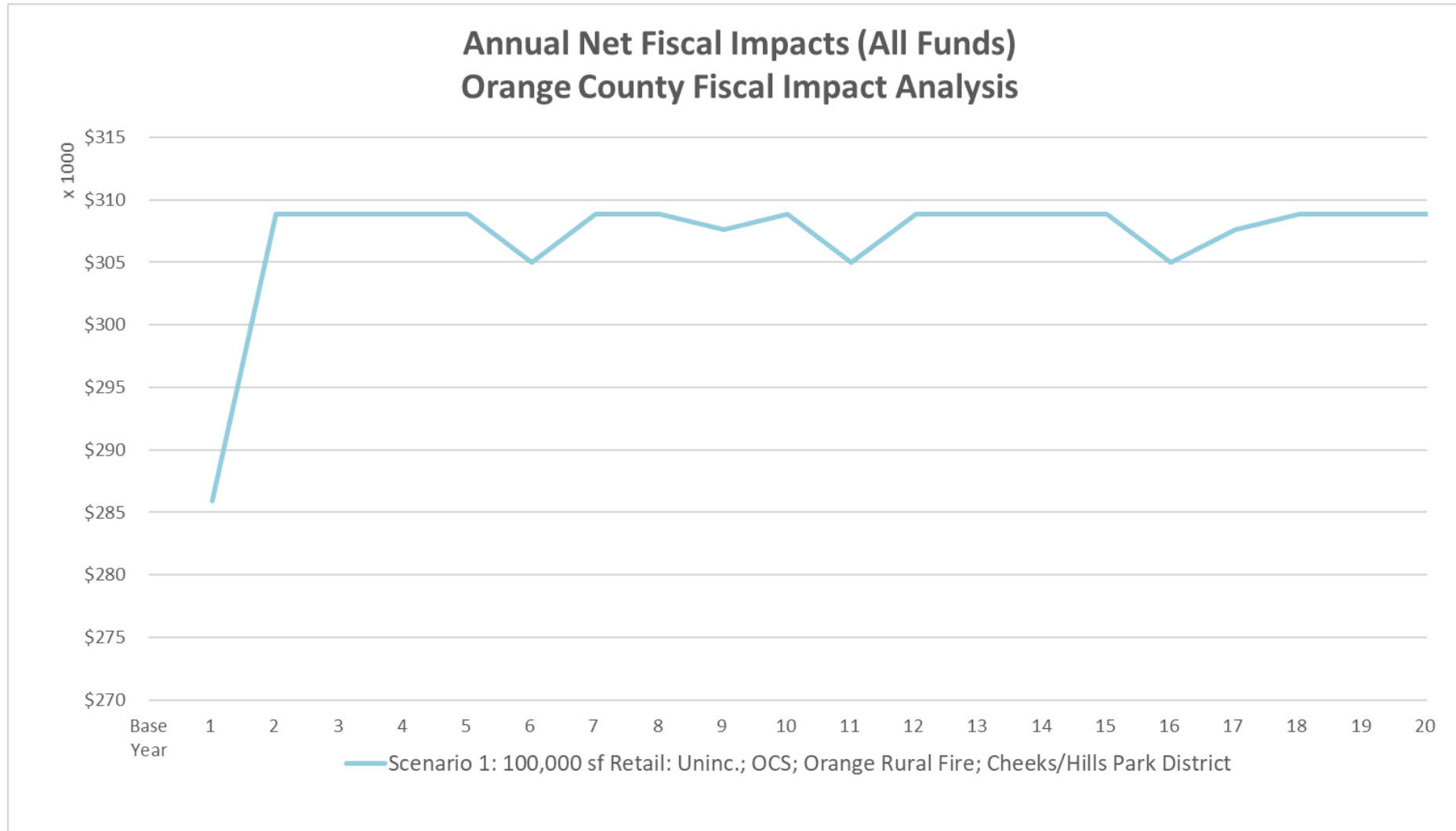
PROJECT SUMMARY			
SCENARIO COMPARISONS	NONRESIDENTIAL IN UNINCORPORATED COUNTY		
	Scenario 1: 100,000 sf Retail: Uninc.; OCS; Orange Rural Fire; Cheeks/Hills Park	Scenario 2: 50,000 sf Office: Uninc.; OCS; Orange Rural Fire; Cheeks/Hills Park	Scenario 3: 200,000 sf Industrial: Uninc.; OCS; Orange Rural Fire; Cheeks/Hills
	[20-Year Net New Growth]	[20-Year Net New Growth]	[20-Year Net New Growth]
<b>RESIDENTIAL:</b>			
Uninc or Inc.	Uninc. Co.	Uninc. Co.	Uninc. Co.
School District	OCS	OCS	OCS
Fire District	Orange Rural	Orange Rural	Orange Rural
Park Distict	Cheeks / Hillsborough	Cheeks / Hillsborough	Cheeks / Hillsborough
<b>HOUSING UNITS</b>	0	0	0
<b>POPULATION</b>	0	0	0
<b>NONRESIDENTIAL SQUARE FEET</b>	100,000	50,000	200,000
<b>JOBS</b>	234	149	326
RESIDENTIAL TAXABLE PROPERTY VALUE	\$0	\$0	\$0
NONRESIDENTIAL TAXABLE PROPERTY VALUE	\$12,100,000	\$6,985,000	\$16,500,000
<b>TOTAL TAXABLE PROPERTY VALUE</b>	<b>\$12,100,000</b>	<b>\$6,985,000</b>	<b>\$16,500,000</b>
<i>MODEL VERSION:</i>	<i>Filename: Orange Co FIM_FY2019_PROJECT_LEVEL_v6_Test_Nonres_Uninc_reviseCommPpt.xlsm</i>		
<i>RUN DATE:</i>	<i>2/9/2022</i>		

# Example: Nonresid. in Uninc. County: Fiscal Results

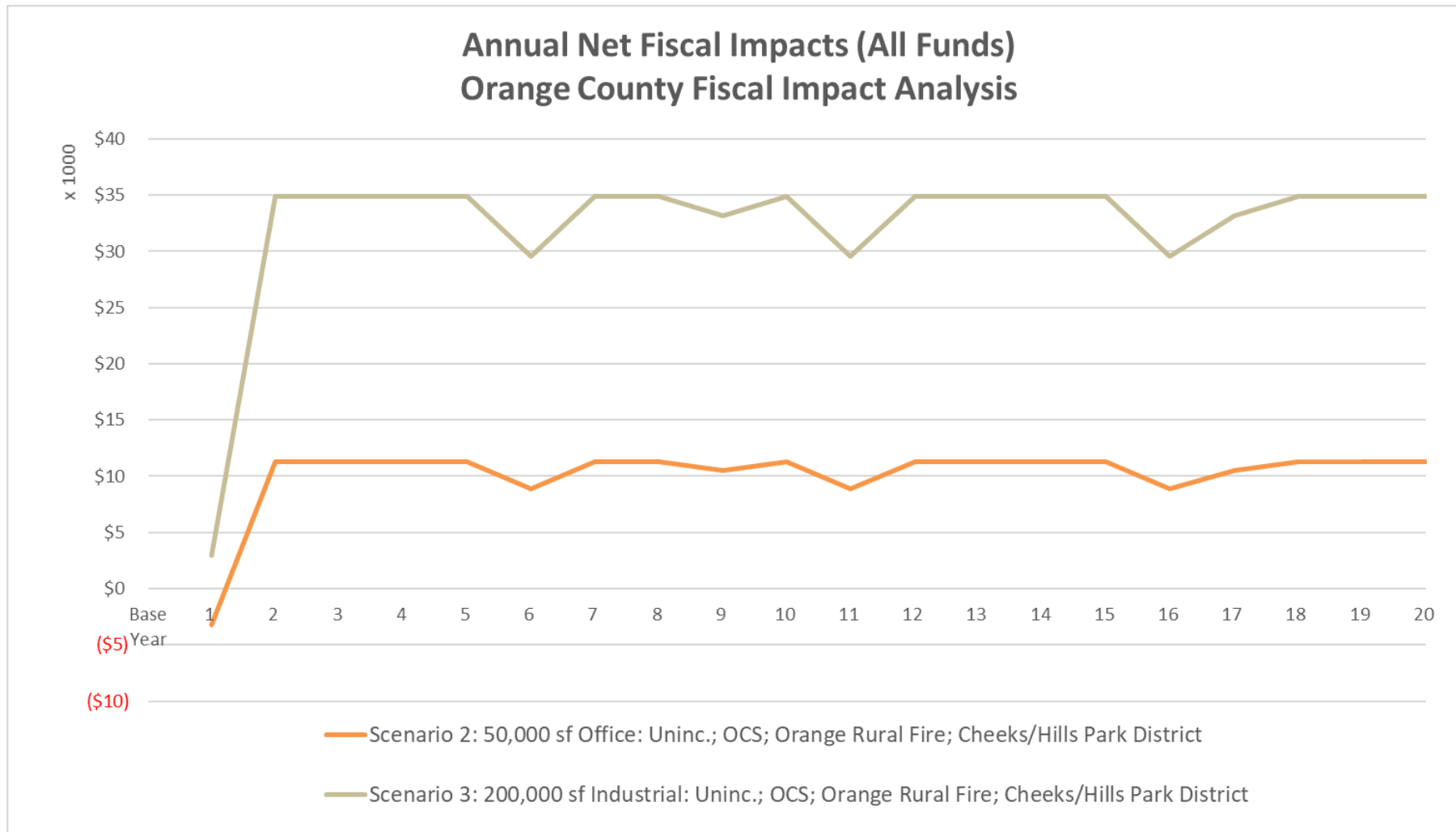
<b>NET FISCAL IMPACT: 20-Year Cumulative Results</b>			
<b>CUMULATIVE - Scenario Comparisons</b>			
<b>Orange County Fiscal Impact Model</b>	<b>NONRESIDENTIAL IN UNINCORPORATED COUNTY</b>		
<b>Category</b>	<b>SCENARIO</b>		
	<b>Scenario 1: 100,000 sf Retail: Uninc.; OCS; Orange Rural Fire; Cheeks/Hills Park District</b>	<b>Scenario 2: 50,000 sf Office: Uninc.; OCS; Orange Rural Fire; Cheeks/Hills Park District</b>	<b>Scenario 3: 200,000 sf Industrial: Uninc.; OCS; Orange Rural Fire; Cheeks/Hills Park District</b>
<i>Grand Total</i>			
<b>TOTAL REVENUES</b>	\$7,849,654	\$1,287,188	\$3,028,127
<b>TOTAL EXPENDITURES</b>	\$1,709,988	\$1,084,947	\$2,382,178
<b>NET FISCAL IMPACT</b>	<b>\$6,139,666</b>	<b>\$202,241</b>	<b>\$645,949</b>
<i>MODEL VERSION:</i>	<i>Filename: Orange Co FIM_FY2019_PROJECT_LEVEL_v6_Test_Nonres_Uninc_reviseCommPpt.xlsxm</i>		
<i>RUN DATE:</i>	<i>2/9/2022</i>		

**Results are 20-Year  
Cumulative Totals**

# Example: Retail in Uninc. County: Fiscal Results



# Example: Office and Industrial in Uninc. County: Fiscal Results





# Wrap Up

- General findings:
  - Nonresidential at default value assumptions typically generates positive fiscal results
  - Retail generates the highest positive fiscal results of nonresidential land uses
  - Certain residential development at high enough values generates positive fiscal results
- The model should be viewed as a tool
  - Results and findings do not have a direct relationship in the UDO
- One piece of information among many to evaluate a project
  - Other non-fiscal factors should be considered when making land use decisions such as: job creation, jobs-housing balance/commute times, economic benefit of local spending from increased income
- Q&A