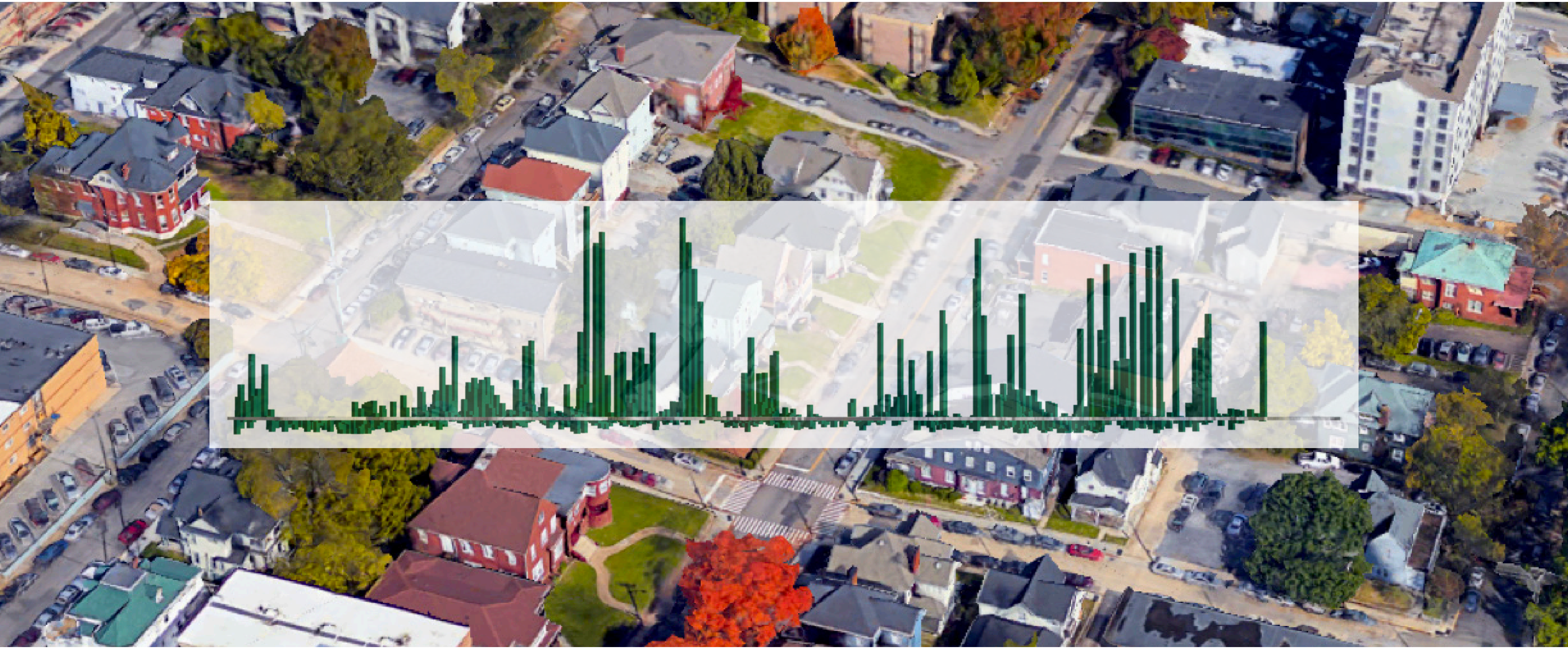
MEMO: FISCAL IMPACT ANALYSIS

KNOX COUNTY, TN



ADVANCE KNOX

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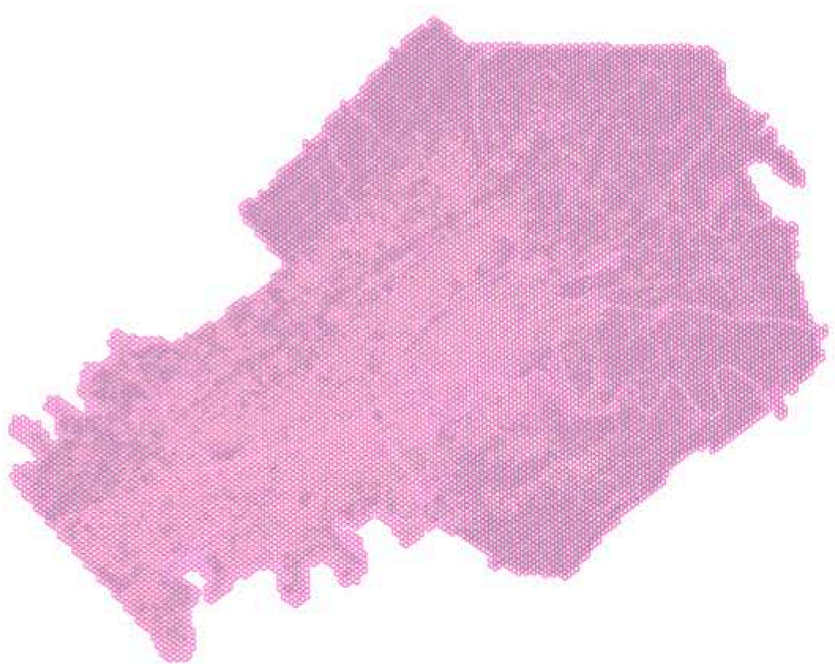
INTRO

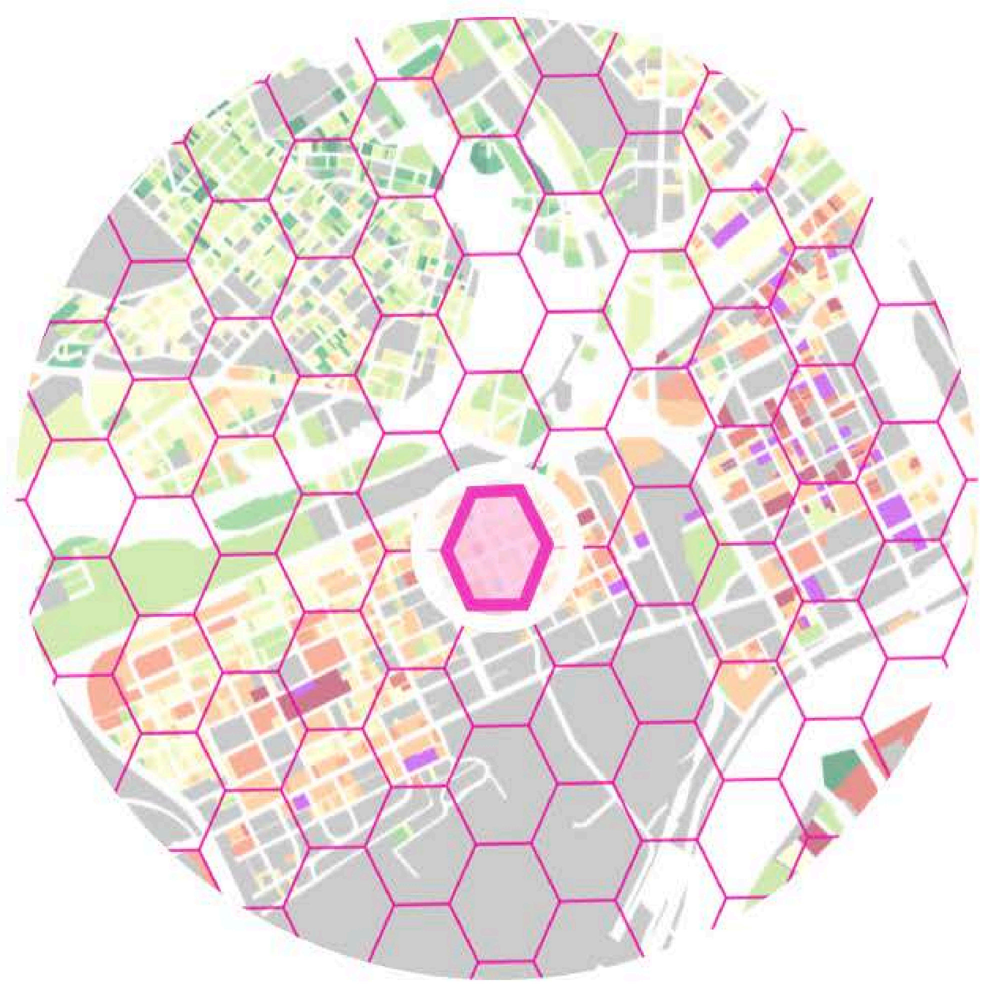
The fiscal impact assessment calculates net cash flow by subtracting operating costs from anticipated revenues. Anticipated revenues are based on property tax revenues, sales tax revenues, and other charges for service. Costs such as infrastructure, public safety, recreation, community facilities are based on annualized cost of maintenance.

The fiscal impact analysis will help the County identify potential changes to local services and revenue trends; clearly estimate future revenues as a way to inform revenue and cost-saving strategies; evaluate tradeoffs associated with executing the preferred growth strategy; clarify preferred and feasible levels of service; align growth decisions with policy impacts; and educating the public, stakeholders, and elected officials on the fiscal benefits of a coordinated approach to land use and fiscal responsibility.

Knox County



Downtown Knoxville



25 acres in Downtown

The fiscal impact analysis uses a 25 acre hexagon as the unit of analysis, providing consistency and continuity with the land use model developed for Advance Knox scenario planning. The land use model is described in a separate document.

METHODOLOGY

ESTIMATING FISCAL IMPACT BY PLACETYPE

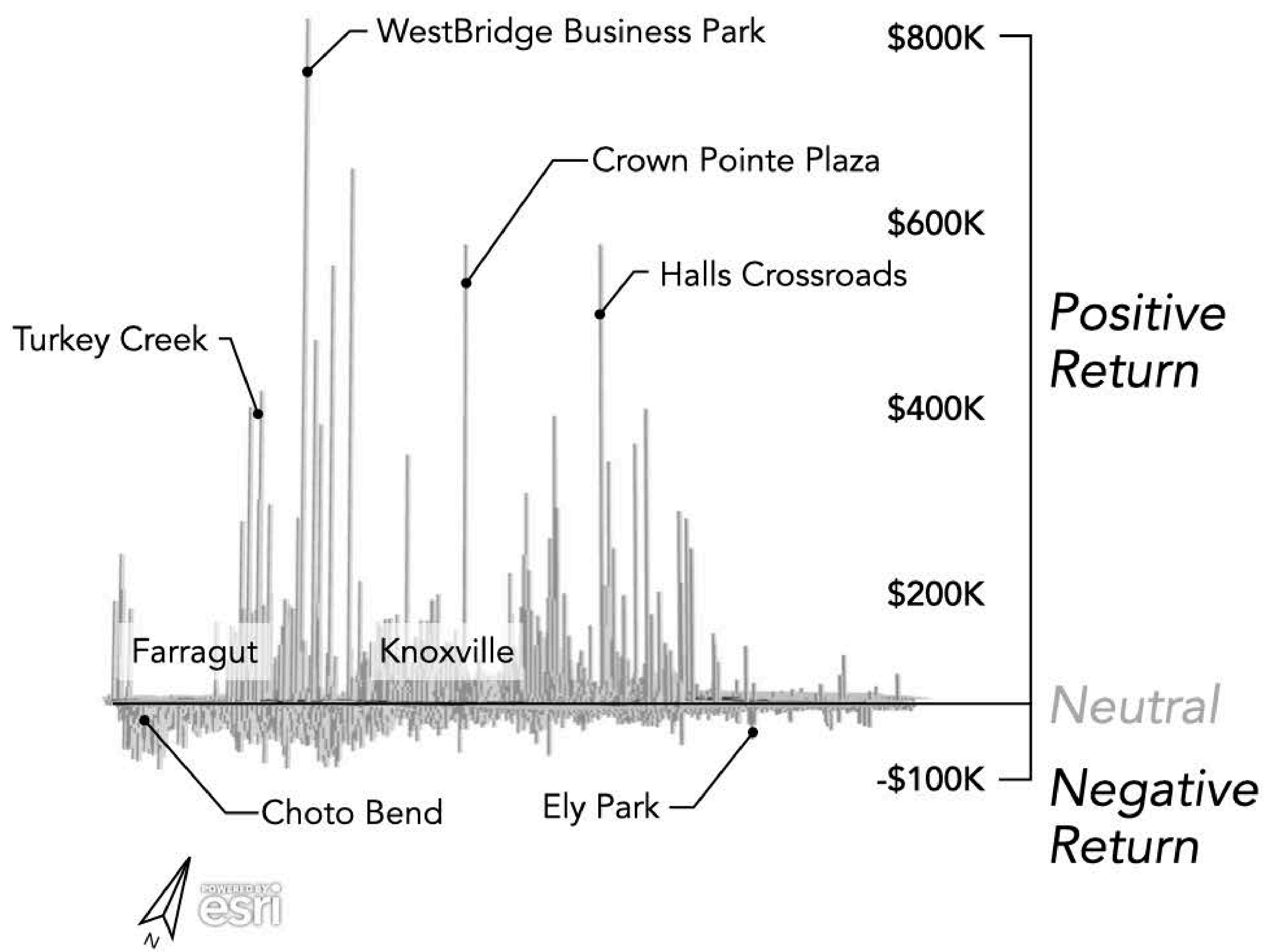
Calculating Existing Fiscal Conditions

We calculated costs and revenues for existing development contained in each hexagon using the methodologies described below. These calculations were used to develop and inform placetype estimations for scenario projections.

Fiscal Impact Variables		
Infrastructure Costs	Stormwater Open Channel Costs	Sum of estimated amortized open channel costs contained in the given hexagon
	Stormwater Conduits Costs	Sum of estimated amortized conduit costs contained in the given hexagon
	Arterial Road Costs	Amortized Arterial road costs distributed by taxable value as a proxy for economic activity
	Local Road Costs	Sum of amortized costs associated with infrastructure contained in the given hexagon
General Government Costs	Public Safety Costs	Distributed across Farragut and the Unincorporated county (per feedback that county police is generally deployed across these places) weighted by taxable value as a proxy for economic activity (75% of cost) plus a baseline blanket cost per hex (25% of cost)
	Other Government	Other General Fund expenditure items including administration of justice, public health and welfare, social/ cultural/recreational spending, apportioned according to the total taxable value as a proxy for economic activity.
Other Costs		Remaining spatially-related costs including Air Quality and Solid Waste Fund expenditures apportioned according to the total taxable value as a proxy for economic activity.
Property Tax Revenue		Property tax produced from all parcels within the given hexagon; this portion represents 44% of the total property tax collected by the county. This is a reflection of the share of property tax collected that was budgeted for NON school expenditure or for debt fund.
Sales Tax Revenue		27% (.2778) of the total sales tax produced within a hexagon to reflect the share of sales tax revenue produced in the unincorporated areas of Knox County that are not used for schools. Of the 27.778%, 58% goes into the General Fund and 42% goes into the Engineering and Public Works Fund.
Other Revenues		Other revenues supplementing property and sales tax to fund the General Fund, EPW Fund, Air Quality Fund, Solid Waste Fund (i.e. wheel tax, fines/forfeitures, other local revenues)

METHODOLOGY

ESTIMATING FISCAL IMPACT BY PLACETYPE

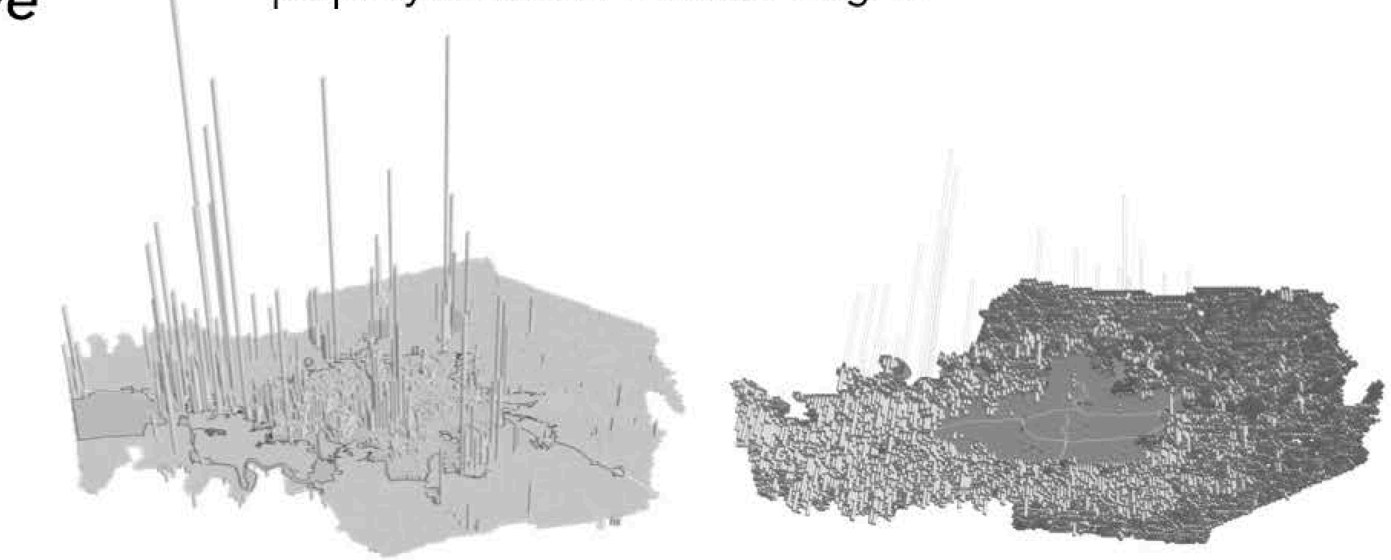


Revenue	+ Costs	= Net
$218M	**-$237M**	**-$20M**

Using Knox County adopted budgets from FY2021 and FY2022, tax roll data, sales tax data, parcel geography, stormwater and road maps, we estimated the net fiscal impact of location-based revenues and costs. Budget items not tied to development types including those associated with the School fund, Cafeteria fund, Library fund, and Debt Service were removed from the analysis. Hotel/motel tax fund revenues and expenditures were also removed from the analysis without sufficient location information to tie net fiscal impact to individual parcels.

We annualized the total lifecycle cost of maintaining roads and stormwater infrastructure, distributing costs according to the total paved road area and centerline feet of stormwater pipe was contained in each hexagon. The costs of public safety and other general government administration were distributed according to the taxable value per acre of property contained in each hexagon, using value per acre as a proxy for economic activity.

Revenues calculated for each hexagon included the sum total of Knox County's share of property tax revenue, the County's share of sales tax revenue, and other revenues that fund the General Fund, EPW Fund, Air Quality Fund, Solid Waste Fund (i.e. wheel tax, fines/forfeitures, other local revenues). These "other revenues" were distributed according to the taxable value per acre of property contained in each hexagon.



METHODOLOGY

ESTIMATING FISCAL IMPACT BY PLACETYPE

Calculating Placetype Projected Impacts

We estimated the net fiscal impact of Advance Knox scenarios using a combination of existing placetypes and proposed placetypes that don't currently exist within the county. Where placetypes existed, we averaged the existing cost and revenue estimates from samples. Where placetype examples did not exist, we derived estimates using comparable development or a blend of relevant development types according to placetype descriptions.

Sales tax revenue numbers were derived from a revenue-per-square-foot estimate of different blends of known big box and main street-style store productivity across Knox County. These rates were multiplied by the square footage of commercial space allocated in relevant place types for each scenario.

Estimated Costs and Revenues to Sustain One 25-Acre Hexagon of Respective Placetypes

Placetypes	Placetype Code	Stormwater	Roads	Public Safety Cost Per Hex	General Gov Costs Per Hex	Other Costs Per Hex	Costs Per Hex	Property tax Rev. Per Hex	Other Revenue Per Hex	Net (minus sales tax)	Sales Tax Rev. Per Hex	Sales Tax $/Sf Multiplier	Revenues Per Hex
Business Park or Campus	BPC	$1,300	$1,500	$11,900	$4,800	$8,900	$28,300	$16,500	$6,900	$23,400	$12,100		$35,400
Corridor Commercial	CC	$1,800	$1,300	$24,000	$10,600	$19,800	$57,500	$39,100	$15,400	$54,500	$42,500		$97,000
Mining & Heavy Industrial	MHI	$700	$800	$2,800	$400	$800	$5,500	$1,400	$600	$2000	$9,300		$11,300
Neighborhood Town Center	NTC	$2,800	$2,600	$87,700	$41,500	$77,100	$211,800	$147,900	$59,900	$207,800		$1.05	
Neighborhood Town Center 2	NTC2	$2,800	$2,600	$100,000	$47,800	$77,100	$230,400	$170,100	$59,900	$230,000		$1.11	
Mixed Use Corredor	MUC	$2,800	$2,600	$86,100	$41,100	$77,100	$209,800	$146,400	$59,900	$206,300		$2.00	
Protected Open Space	POS	$900	$300	$4,000	$1000	$1,800	$8,100	$2,400	$1,400	$3,800	$1,200		$5,100
Rural	Rural	$1,000	$600	$3,900	$900	$1,800	$8,300	$2,600	$1,400	$4,000	$1,200		$5,200
Suburban residential low	SRL	$2,100	$2,600	$11,800	$4,700	$8,700	$29,900	$11,400	$6,800	$18,200	$700		$18,800
Suburban Residential Low Modified	SRLm	$2,200	$2,800	$18,400	$8,200	$15,200	$46,900	$19,900	$11,800	$31,700	$1,200		$33,000
Suburban residential medium	SRM	$2,000	$2,000	$19,400	$8,400	$15,700	$47,500	$24,300	$12,200	$36,500	$2,400		$38,800
Suburban Residential Medium Modified	SRMm	$2,000	$2,000	$19,400	$8,400	$15,700	$47,500	$32,100	$12,200	$44,300	$2,400		$46,600
Suburban Residential High	SRH	$2,100	$1,600	$37,600	$17,200	$32,100	$90,700	$52,200	$24,900	$77,100		$1.42	
Rural Crossroads Commercial	RCR	$1,400	$1,700	$5,800	$1,800	$3,400	$14,200	$6,300	$2,700	$9,000		$1.13	
Civic Institutional	CIV	$1,800	$1,200	$9,300	$3,500	$6,600	$22,300	$8,900	$5,100	$14,000	$5,000		$19,000
Traditional Neighborhood	TNH	$2,500	$2,100	$62,700	$46,100	$85,700	$199,100	$127,200	$66,600	$193,800		$0.83	

See Placetype Calculator tool for more detailed calculation information.

METHODOLOGY

SCENARIO PROJECTIONS FISCAL IMPACT

Testing Scenario Impact

		Placetype Designation (Hex Count)	Allocated Development (Acres)	Redeveloped (Acres)	Commercial Space Allocated (SF)	Total Revenue ($)	Total Cost ($)	Net Fiscal Impact ($)
Outward Bound		**11,681**	**16,134**	**666**	**4,033,485**	**$18,608,000**	**$20,569,000**	**-$1,962,000**
Focus on traditional residential development, strip commercial centers and employment centers in downtown Knoxville	BPC	247	500	45	245,754	$720,000	$495,000	$225,000
	CCM	571	1,619	310	3,612,220	$6,414,000	$3,050,000	$3,364,000
	CIV	134	-	-	-	$ -	$ -	$ -
	MHI	249	288	70	-	$132,000	$24,000	$108,000
	NTC	1	5	-	30,375	$77,000	$45,000	$32,000
	POS	688	-	-	-	$ -	$ -	$ -
	RCR	21	14	1	39,828	$50,000	$3,000	$47,000
	RUR	4,902	88	2	-	$19,000	$29,000	-$10,000
	SRL	4,470	12,691	161	-	$9,730,000	$15,215,000	-$5,485,000
	SRM	398	928	77	105,308	$1,466,000	$1,708,000	-$242,000
On the Road Again		**11,681**	**14,230**	**907**	**4,610,107**	**$22,886,000**	**$22,779,000**	**$107,000**
Redevelopment of major highways as well as planned road expansions; more retail corridors	BPC	194	308	85	129,290	$444,000	$226,000	$219,000
	CCM	312	1,093	243	2,470,986	$4,322,000	$2,018,000	$2,304,000
	CIV	95	-	-	-	$ -	$ -	$ -
	MHI	85	23	-	-	$10,000	$5,000	$5,000
	NTC	234	780	193	1,962,891	$8,655,000	$6,312,000	$2,343,000
	POS	744	-	-	-	$ -	$ -	$ -
	RCR	4	3	-	491	$2,000	$2,000	$0
	RUR	6,164	463	45	-	$98,000	$142,000	-$43,000
	SRH	6	40	-	3,624	$131,000	$148,000	-$17,000
	SRL	3,605	11,038	248	-	$8,462,000	$13,153,000	-$4,691,000
	SRM	238	482	93	42,825	$761,000	$773,000	-$12,000
Town and Country		**11,681**	**13,793**	**1,443**	**6,279,476**	**$37,107,000**	**$34,141,000**	**$2,966,000**
Focus on mixed use town and commercial centers providing employment and bringing concentrated pockets of commercial activity (and therefore sales tax) to residential neighborhoods	BPC	220	698	210	353,329	$1,006,000	$414,000	$592,000
	CCM	258	972	299	2,314,536	$3,842,000	$1,451,000	$2,391,000
	CIV	130	-	-	-	$ -	$ -	$ -
	MHI	113	158	187	-	$73,000	-$2,000	$74,000
	NTC	89	446	205	1,622,429	$5,471,000	$3,465,000	$2,007,000
	POS	681	-	-	-	$ -	$ -	$ -
	RCR	7	53	-	191,917	$236,000	$31,000	$205,000
	RUR	6,290	776	146	-	$165,000	$240,000	-$75,000
	SRL	3,288	7,826	180	-	$6,012,000	$9,292,000	-$3,280,000
	SRM	240	584	84	83,083	$922,000	$982,000	-$60,000
	TNH	365	2,279	132	1,714,182	$19,380,000	$18,269,000	$1,112,000

The fiscal impact for each placetype was calculated on a per-acre basis and not on a per-hex basis to account for hexes that were only partially allocated in the land use model.

On acres of land planned for redevelopment, placetype costs were discounted by the cost associated with existing development. This discount was based on the assumption that redevelopment (as opposed to Greenfield development) would not require additional infrastructure, road costs, or general government costs.

METHODOLOGY

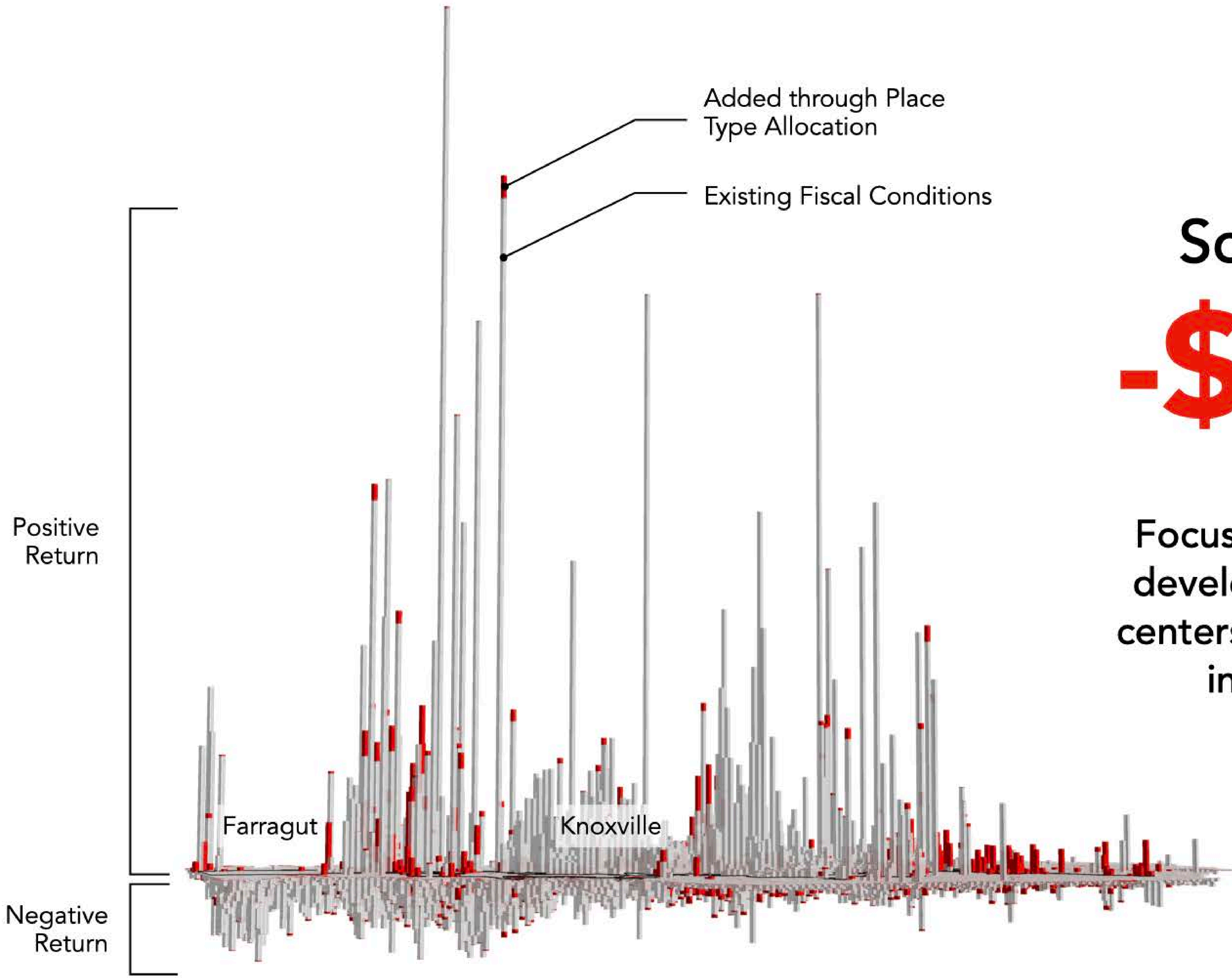
SCENARIO PROJECTIONS FISCAL IMPACT

Developing a Preferred Scenario

Results from initial scenario testing informed an iterative process to arrive at the preferred scenario. The preferred scenario results in a net fiscal impact of over $4.8 million, with significant revenue pulled in through pockets of mixed use development including the mixed use corridor (MUC) placetype and neighborhood town center (NTC2) placetype. Though these development types tend to be high cost due to the infrastructure and general government costs needed to sustain them, the revenue generated in property and sales tax from these places significantly outpaces the associated costs.

	Placetype Designation (Hex Count)	Allocated Development (Acres)	Redeveloped (Acres)	Commercial Space Allocated (SF)	Total Revenue ($)	Total Cost ($)	Net Fiscal Impact ($)
Preferred Version	**11,681**	**10,653**	**1,299**	**5,765,904**	**$34,435,000**	**$29,632,000**	**$4,803,000**
BPC	220	565	158	252,931	$813,000	$383,000	$430,000
CCM	244	620	165	1,493,518	$2,443,000	$1,009,000	$1,434,000
CIV	130	-	-	-	$ -	$ -	$ -
MHI	113	275	394	-	$126,000	$8,000	$118,000
MUC	80	458	30	1,850,668	$7,545,000	$3,882,000	$3,664,000
NTC2	83	302	143	1,016,149	$3,987,000	$2,673,000	$1,314,000
POS	681	-	-	-	$ -	$ -	$ -
RCR	12	36	-	128,102	$158,000	$21,000	$137,000
RUR	6,229	504	149	-	$107,000	$156,000	-$49,000
SRLm	3,370	6,085	101	-	$8,168,000	$11,159,000	-$2,991,000
SRMm	263	659	63	83,797	$1,249,000	$1,159,000	$90,000
TNH	256	1,150	96	940,739	$9,838,000	$9,182,000	$656,000

FISCAL IMPACT
SCENARIO: OUTWARD BOUND



Scenario Impact:

-$1.96M

Focus on traditional residential development, strip commercial centers and employment centers in downtown Knoxville

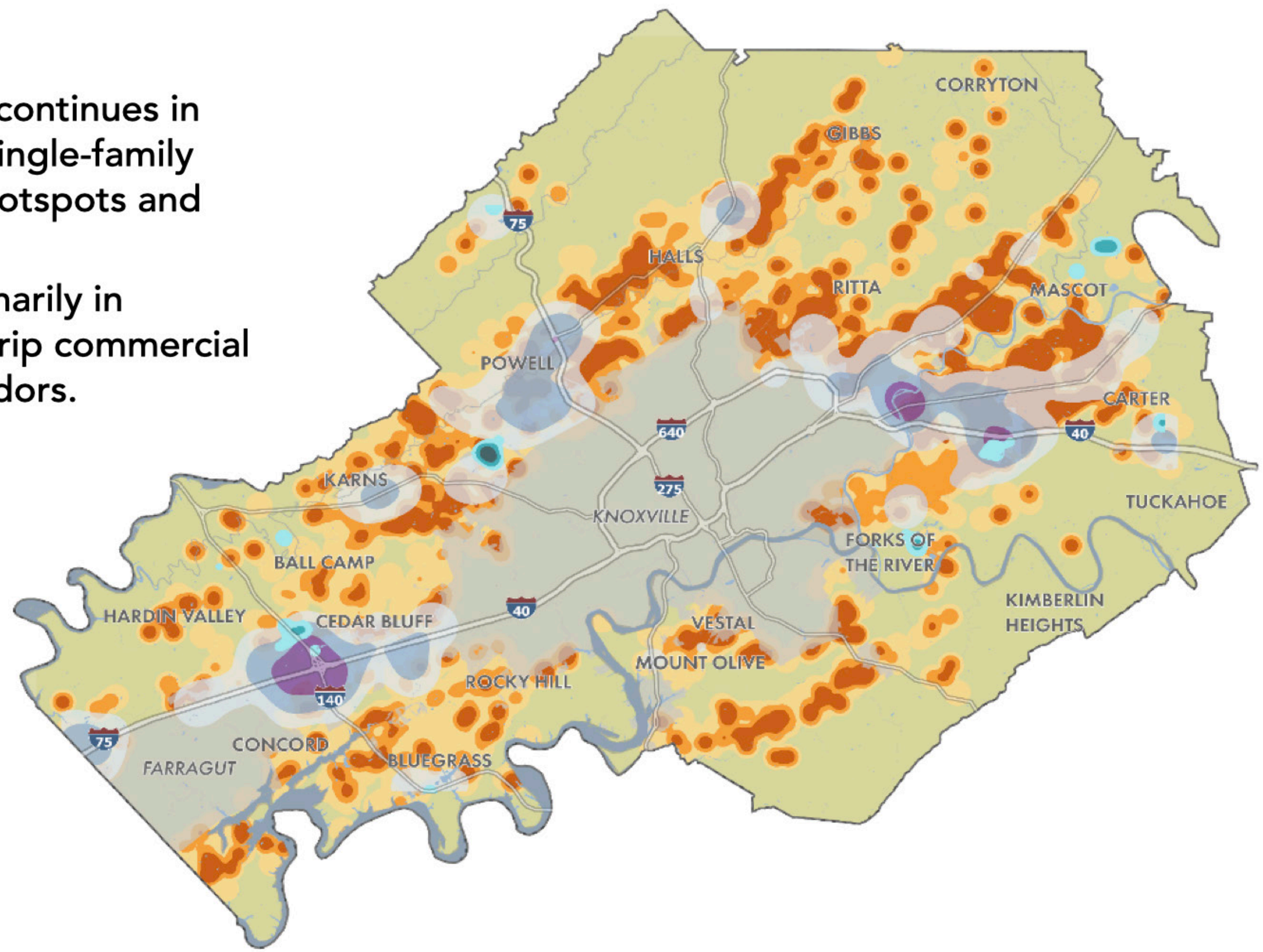
FISCAL IMPACT

SCENARIO: OUTWARD BOUND

In this scenario, growth continues in our existing pattern of single-family subdivisions in current hotspots and rural areas.

Employment occurs primarily in existing locations and strip commercial grows along major corridors.

- Suburban Residential
- Suburban Commercial and Office
- Mixed Use Centers
- Employment Centers



FISCAL IMPACT

SCENARIO: OUTWARD BOUND

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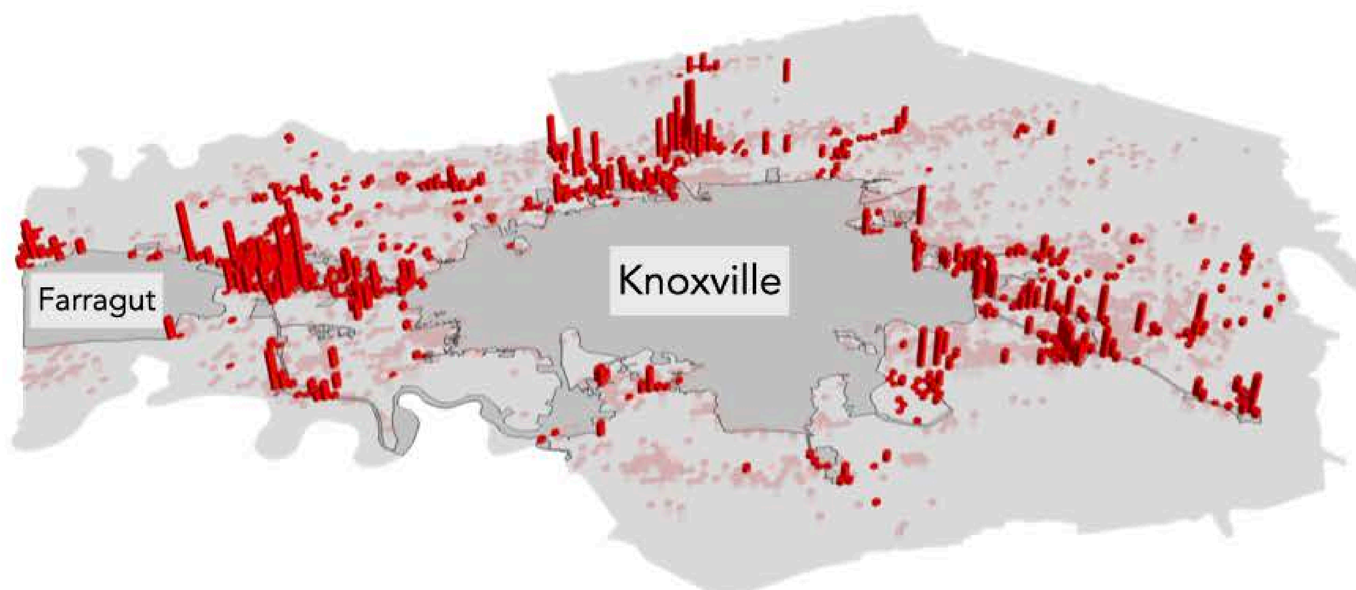

Revenue

$18.61M

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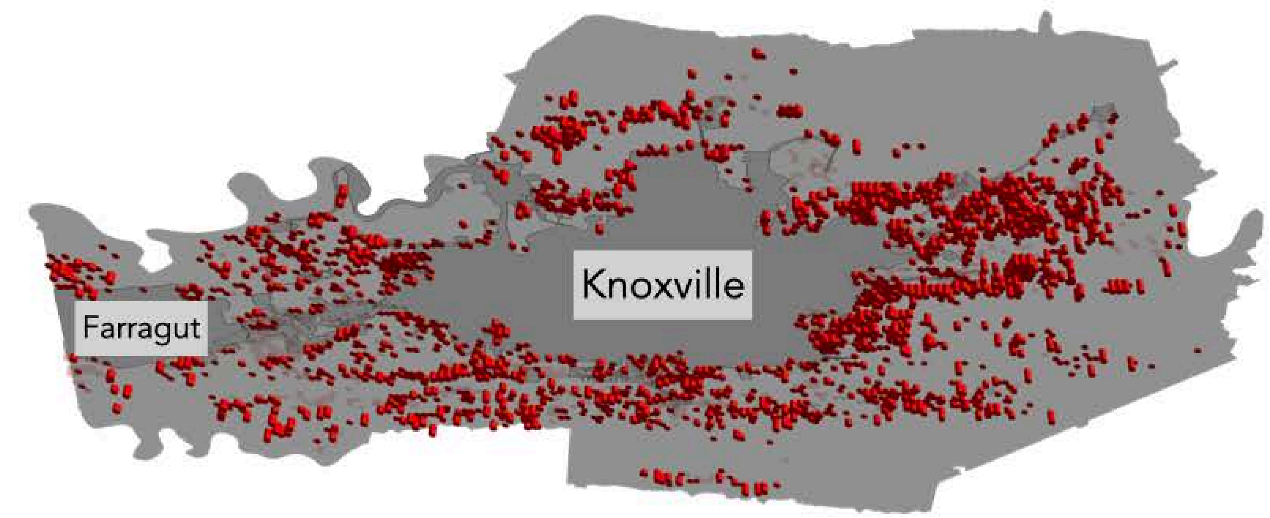
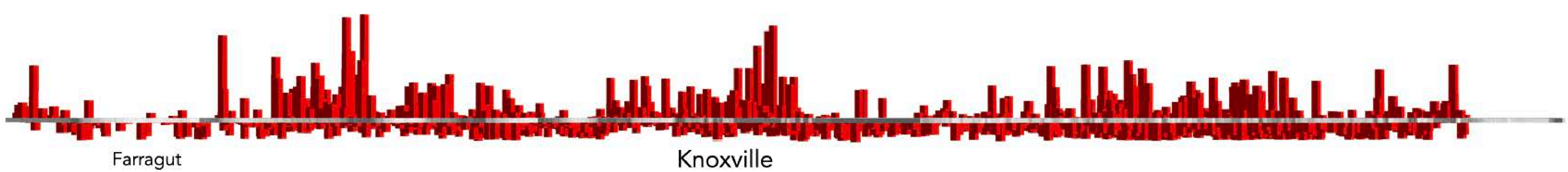


Costs

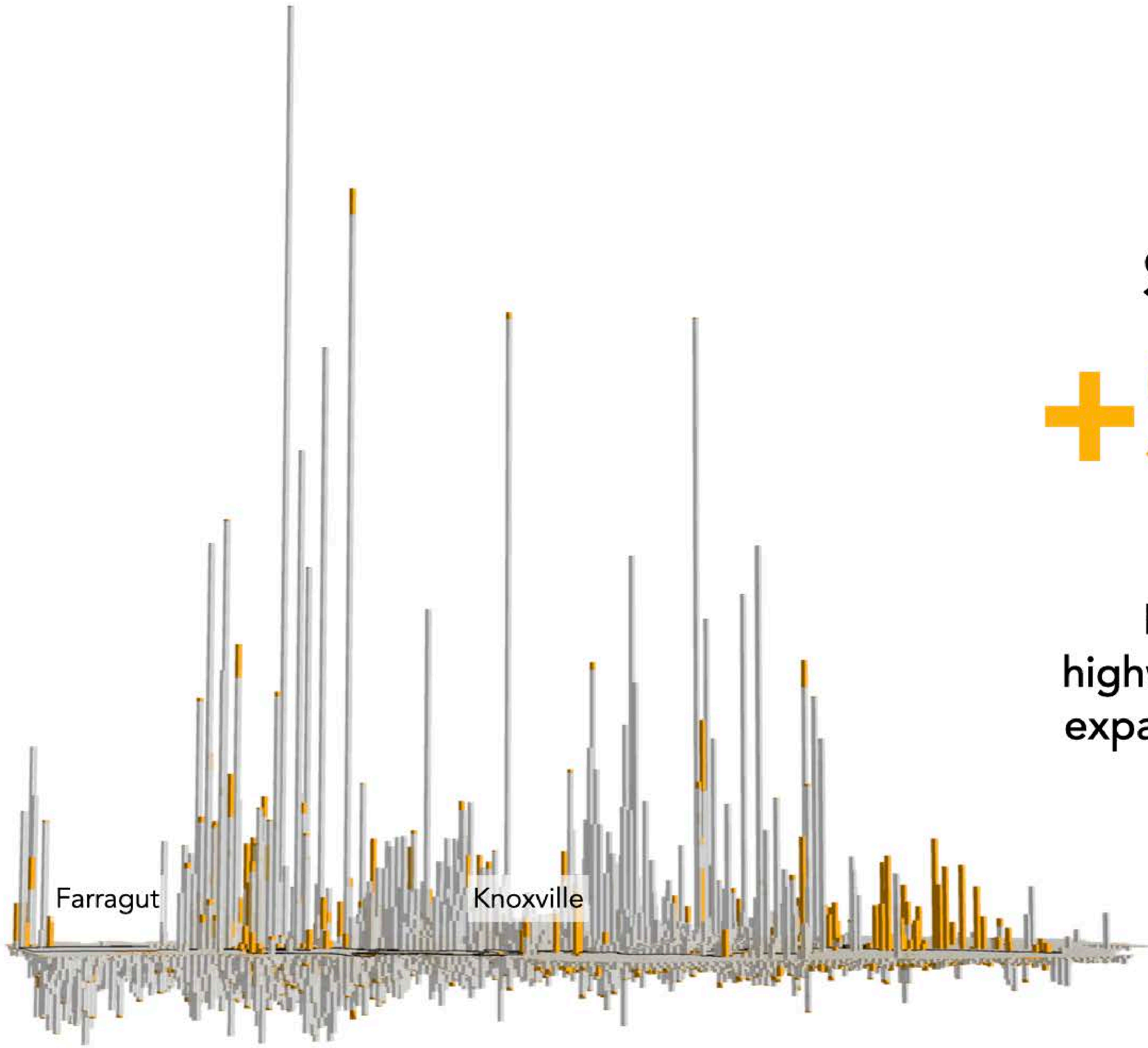
$20.57M

Model viewed from the side:



FISCAL IMPACT

SCENARIO: ON THE ROAD AGAIN



Scenario Impact

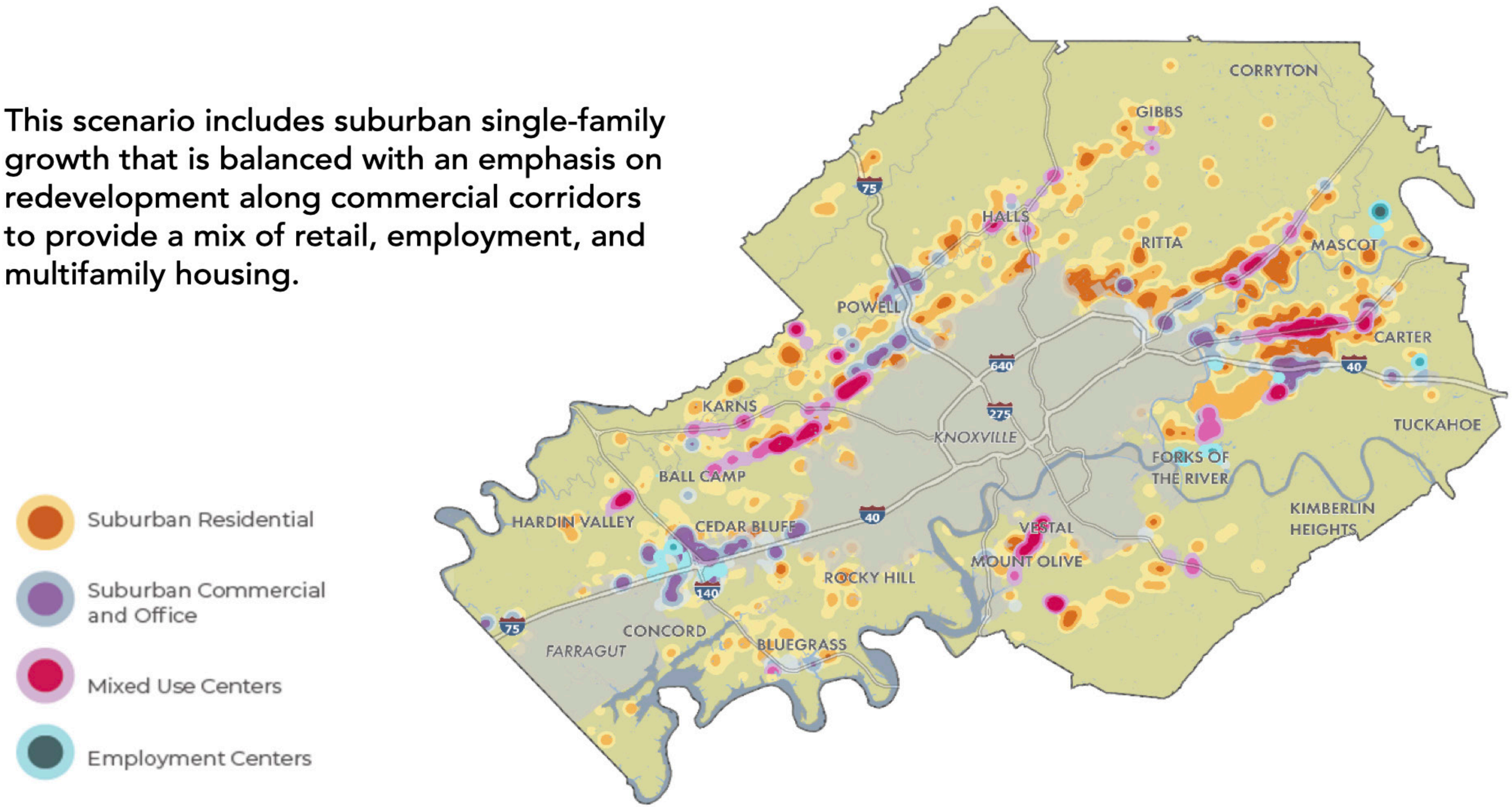
+$0.11M

Redevelopment of major highways as well as planned road expansions; More retail corridors

FISCAL IMPACT

SCENARIO: ON THE ROAD AGAIN

This scenario includes suburban single-family growth that is balanced with an emphasis on redevelopment along commercial corridors to provide a mix of retail, employment, and multifamily housing.



FISCAL IMPACT

SCENARIO: ON THE ROAD AGAIN

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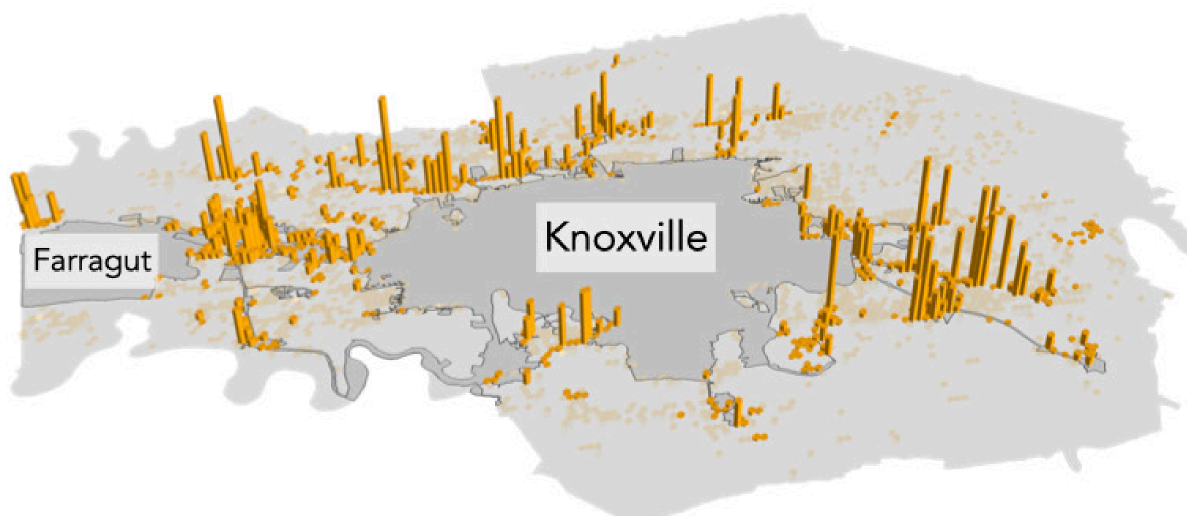

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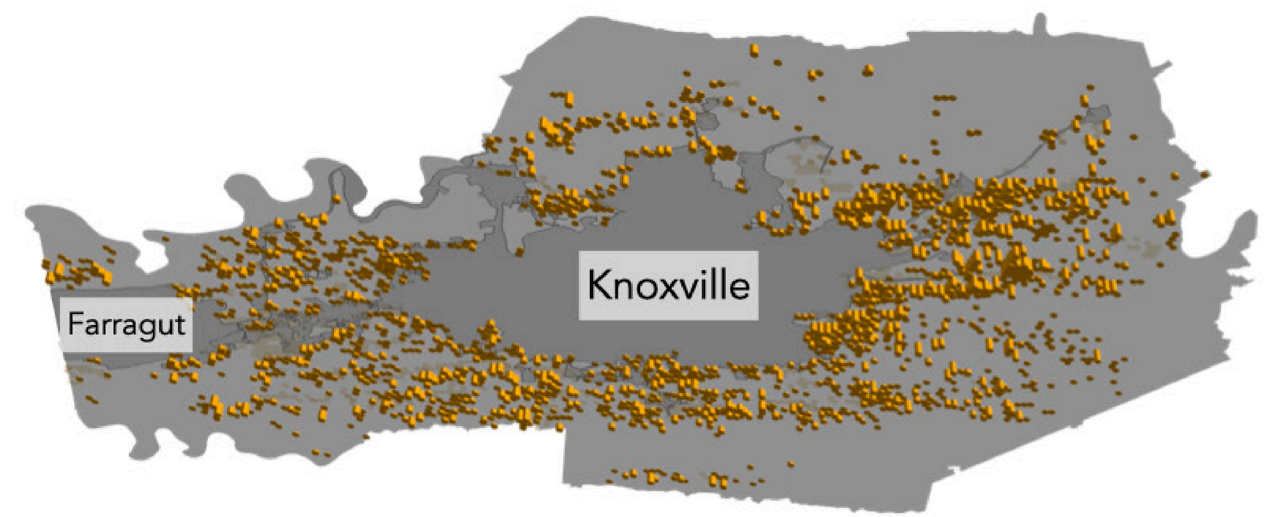

Revenue

$22.9M

Costs

$22.8M

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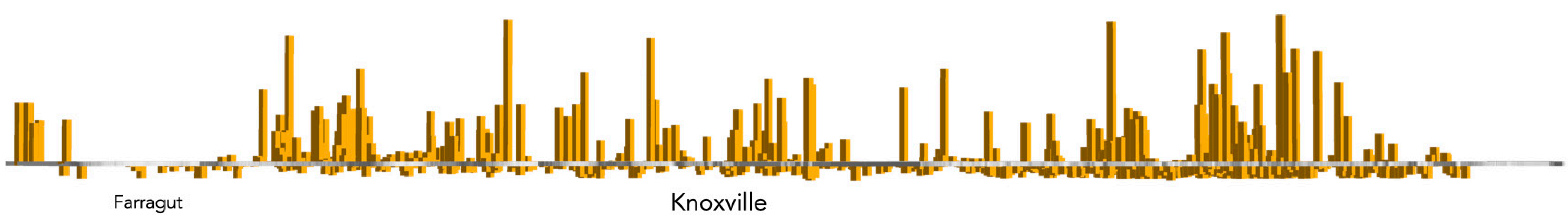
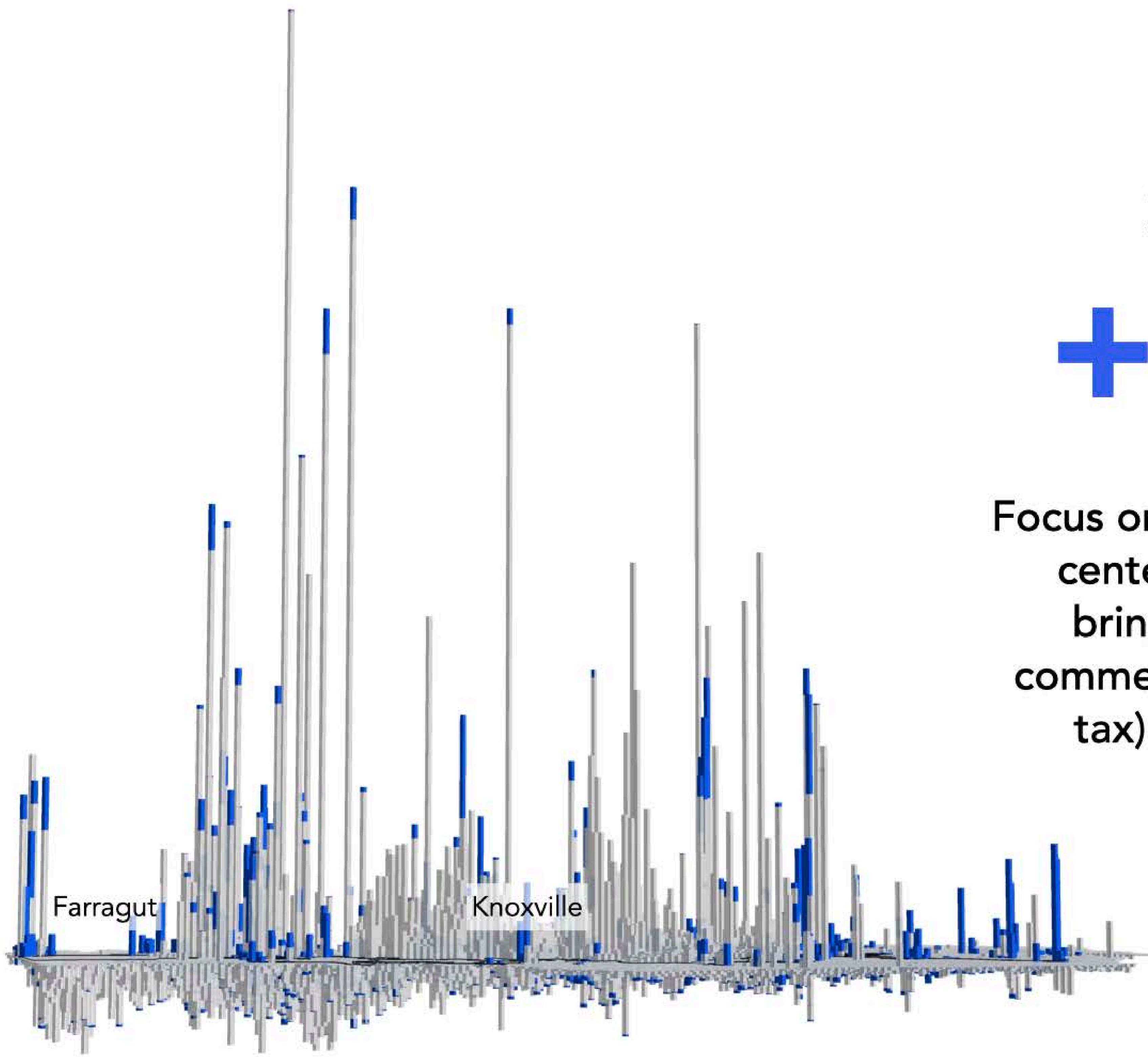


FISCAL IMPACT

SCENARIO: TOWN & COUNTRY



Scenario Impact:

+$2.97M

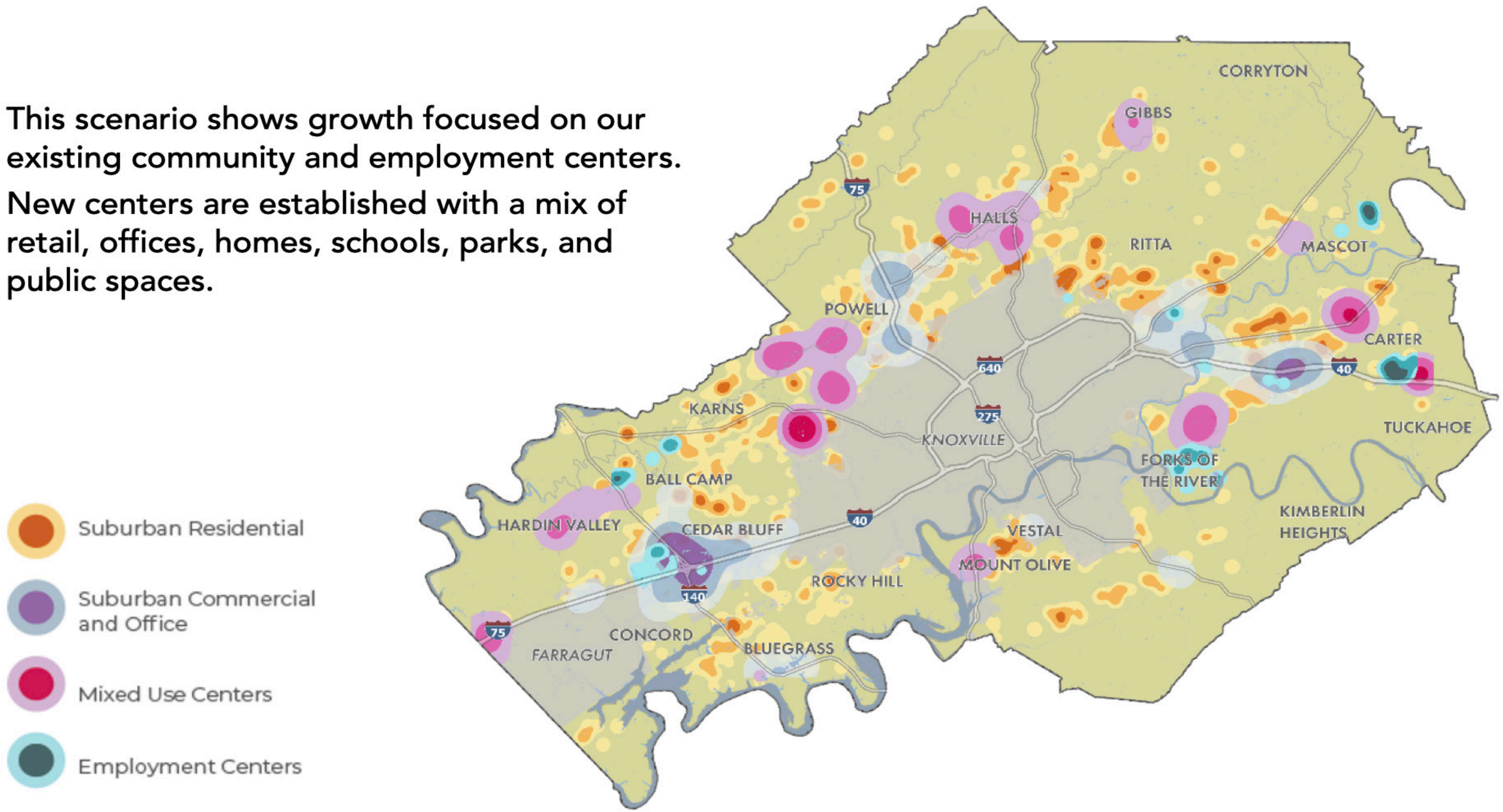
Focus on mixed use town and commercial centers providing employment and bringing concentrated pockets of commercial activity (and therefore sales tax) to residential neighborhoods

FISCAL IMPACT

SCENARIO: TOWN & COUNTRY

This scenario shows growth focused on our existing community and employment centers.

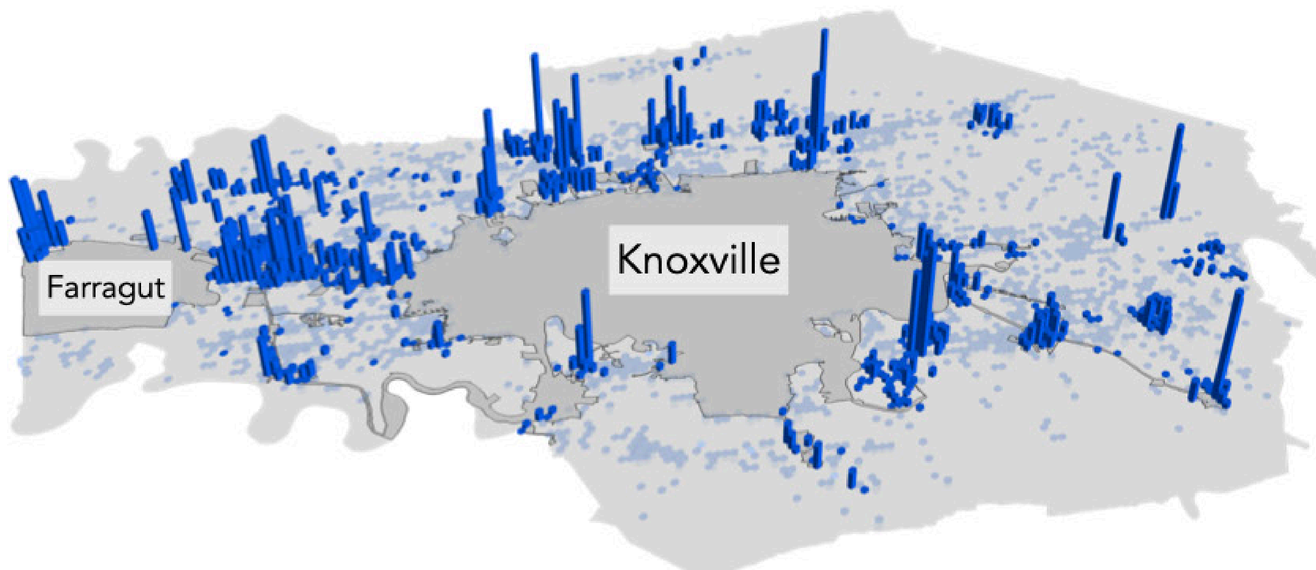
New centers are established with a mix of retail, offices, homes, schools, parks, and public spaces.



FISCAL IMPACT

SCENARIO: TOWN & COUNTRY

Model viewed from above:



Revenue

$37.1M

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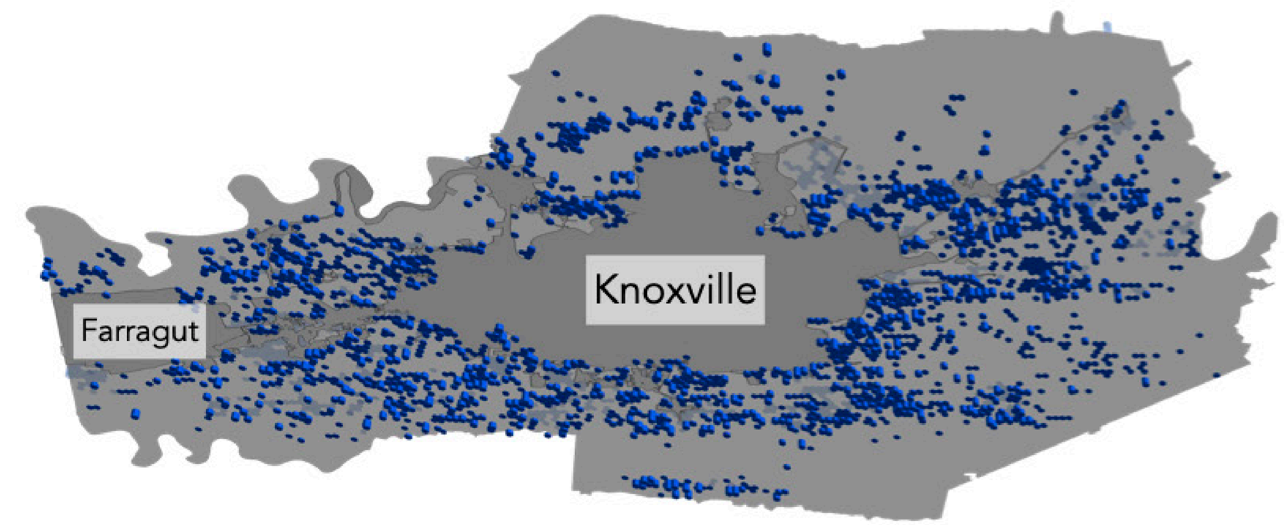

Costs

$34.1M

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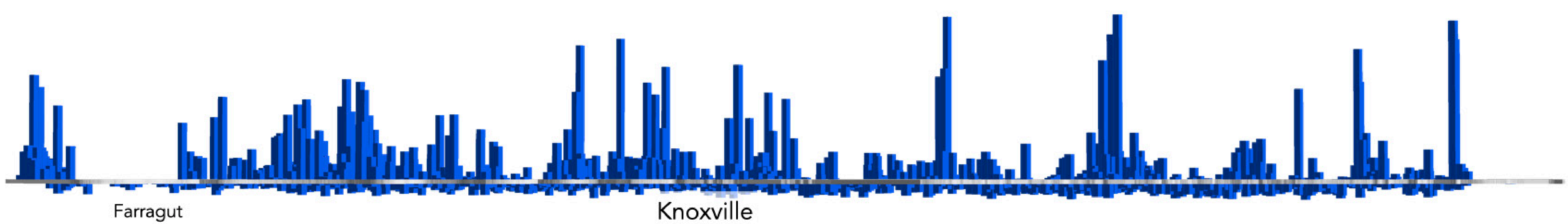
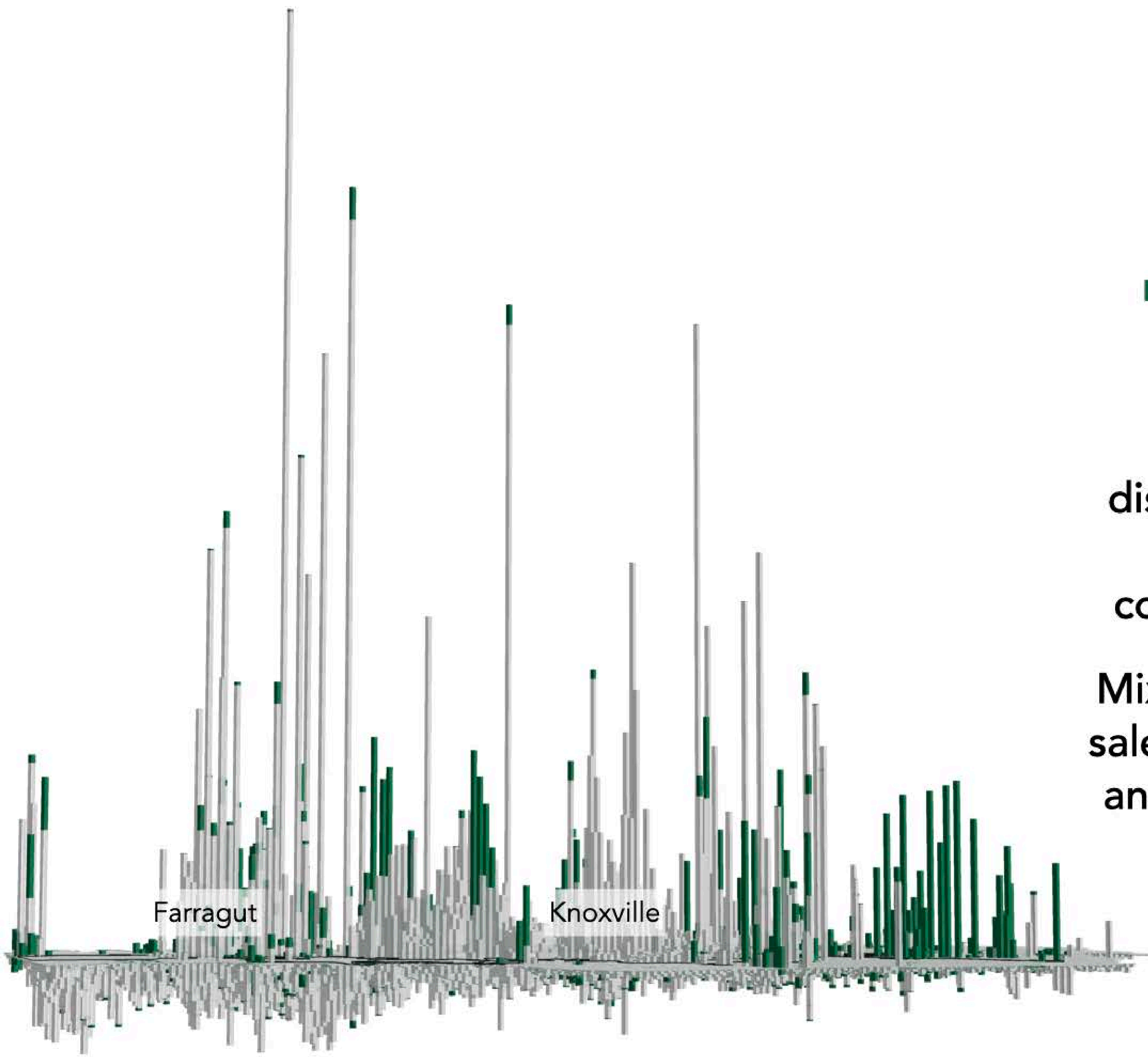


FISCAL IMPACT
PREFERRED SCENARIO



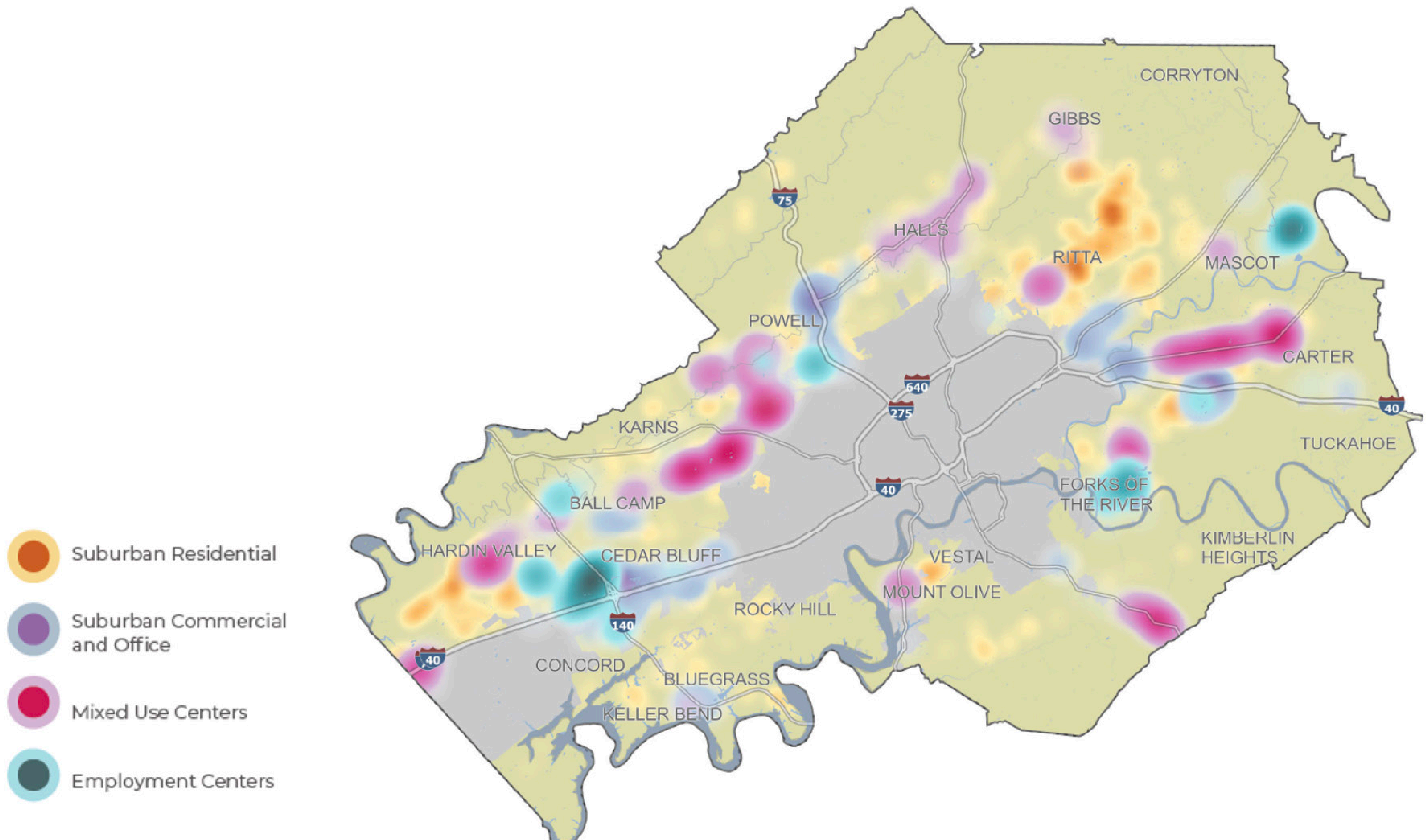
Scenario Impact:
+$4.80M

Nodes of mixed use development distributed across the county to create pockets of bended residential, commercial, and employment centers.

Mixed use development types generate sales tax and property tax for the county and offsets net cost of surrounding low density residential development.

FISCAL IMPACT

PREFERRED SCENARIO



FISCAL IMPACT

PREFERRED SCENARIO

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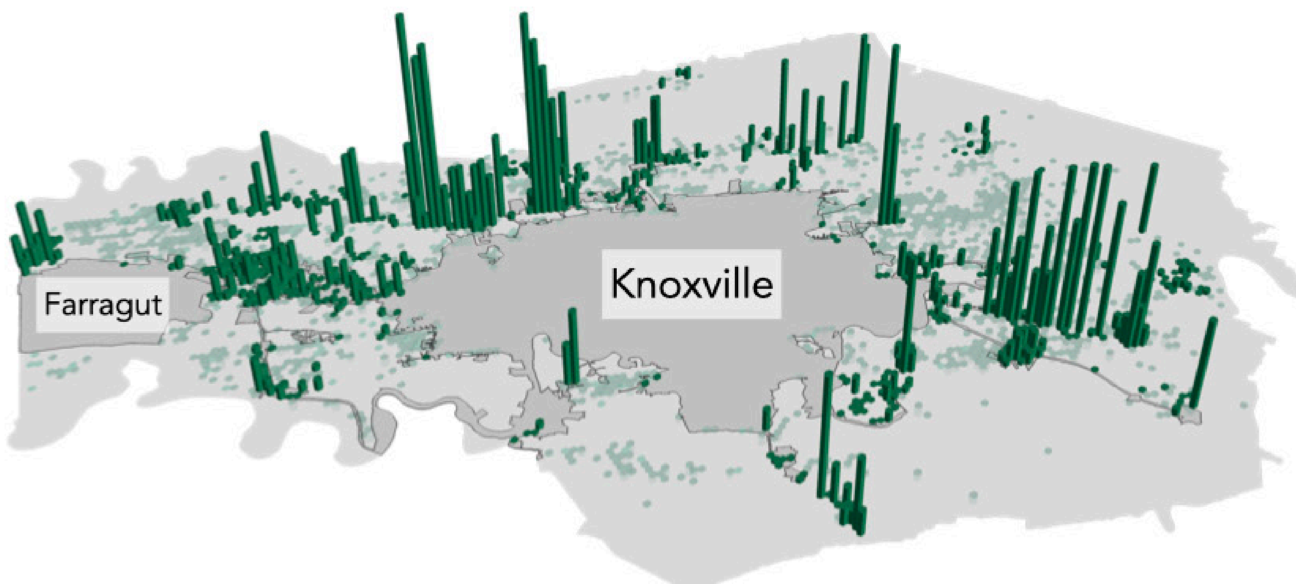

Revenue

$34.4M

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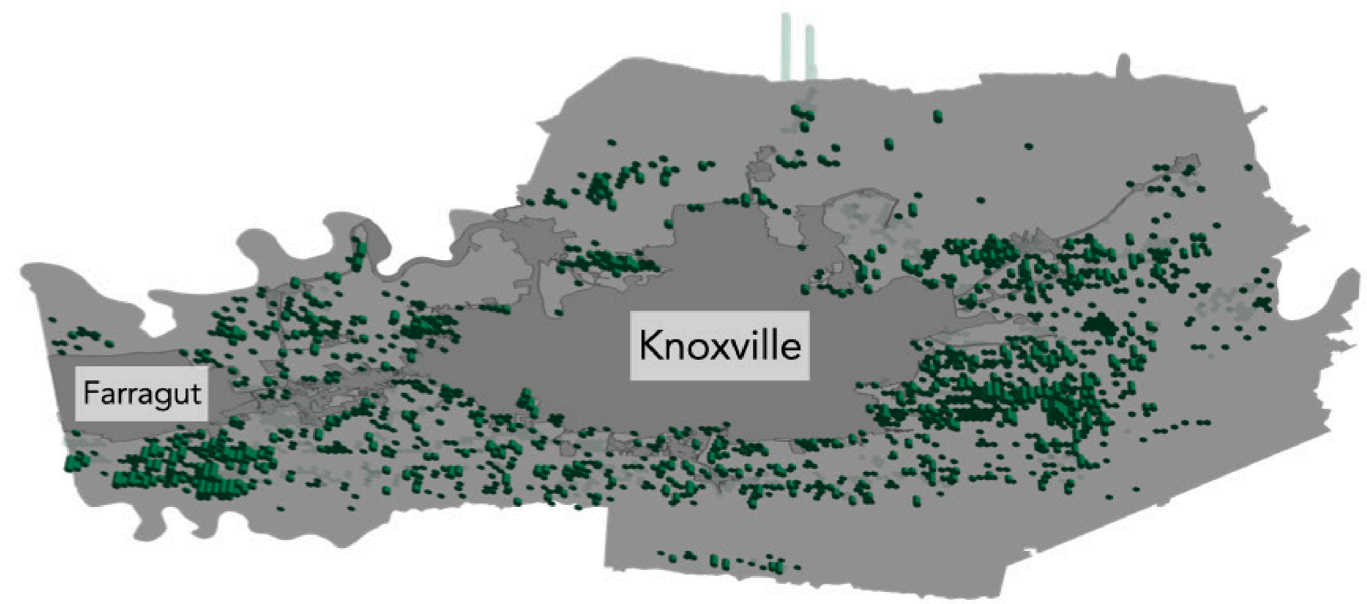

Costs

$29.6M

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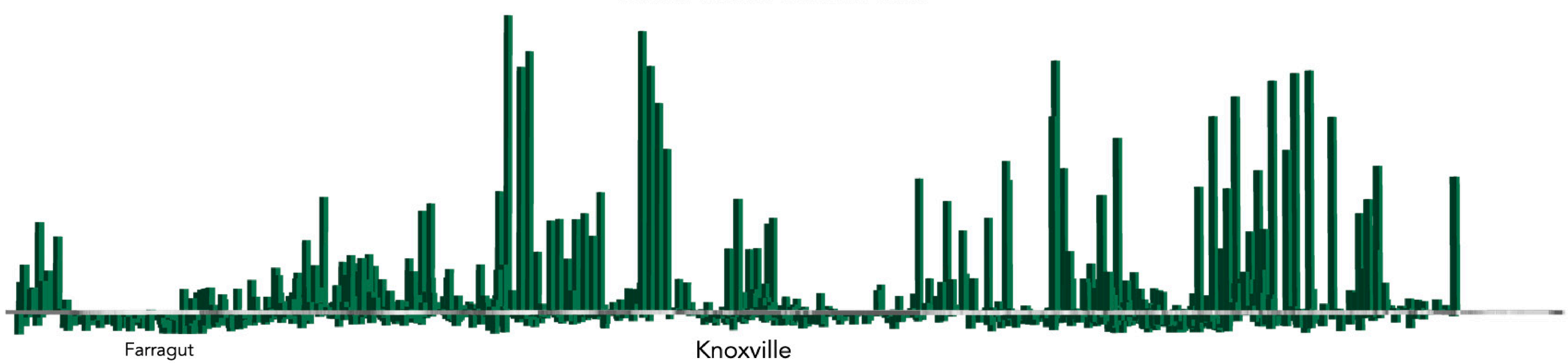
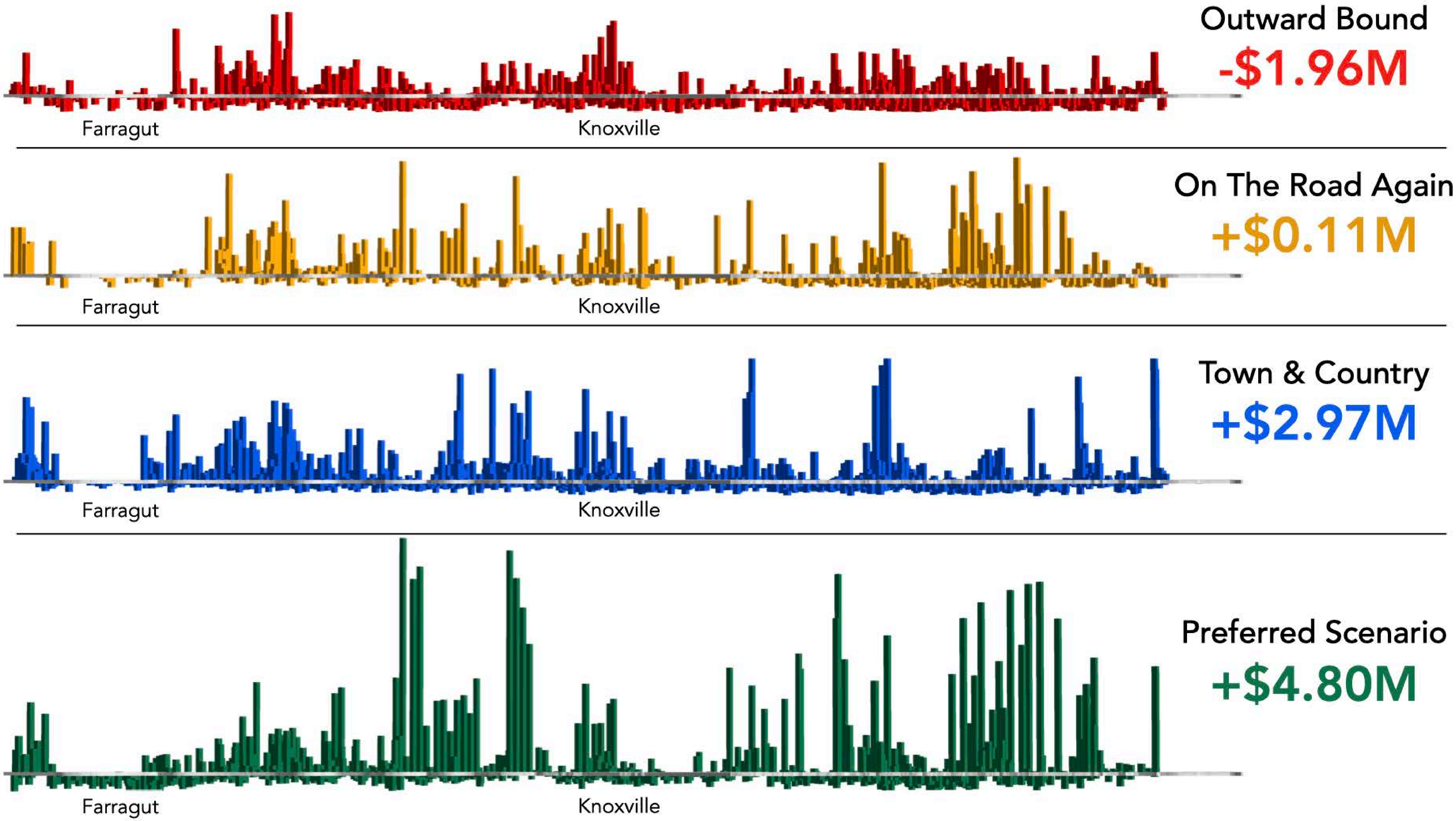


FISCAL IMPACT
COMPARISON OF ALL SCENARIOS



CREDITS AND ATTRIBUTIONS

All data used in this analysis and report, unless otherwise noted, was provided by Knox County. All maps are created with ESRI software.

URBAN3

Data-driven storytelling

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