



# Regional Fiscal Impact Modeling Envision Tomorrow *ReFIT*

Friday, February 14, 2014

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Fregonese Associates

# Why Model Fiscal Impacts?

- Assess potential future tax revenue streams
- Quantify the public cost of abandonment/decline
- Identify regional revenue imbalances
- Explore potential for regional revenue sharing
- **Help public and elected officials understand the cost of building and maintaining new infrastructure**



# Envision Tomorrow ReFIT



- Based on Federal Reserve Fiscal Impact Tool (FIT).
- Helps community economic developers evaluate development proposals.
- In use since 2004

Adapted by Top Researchers:

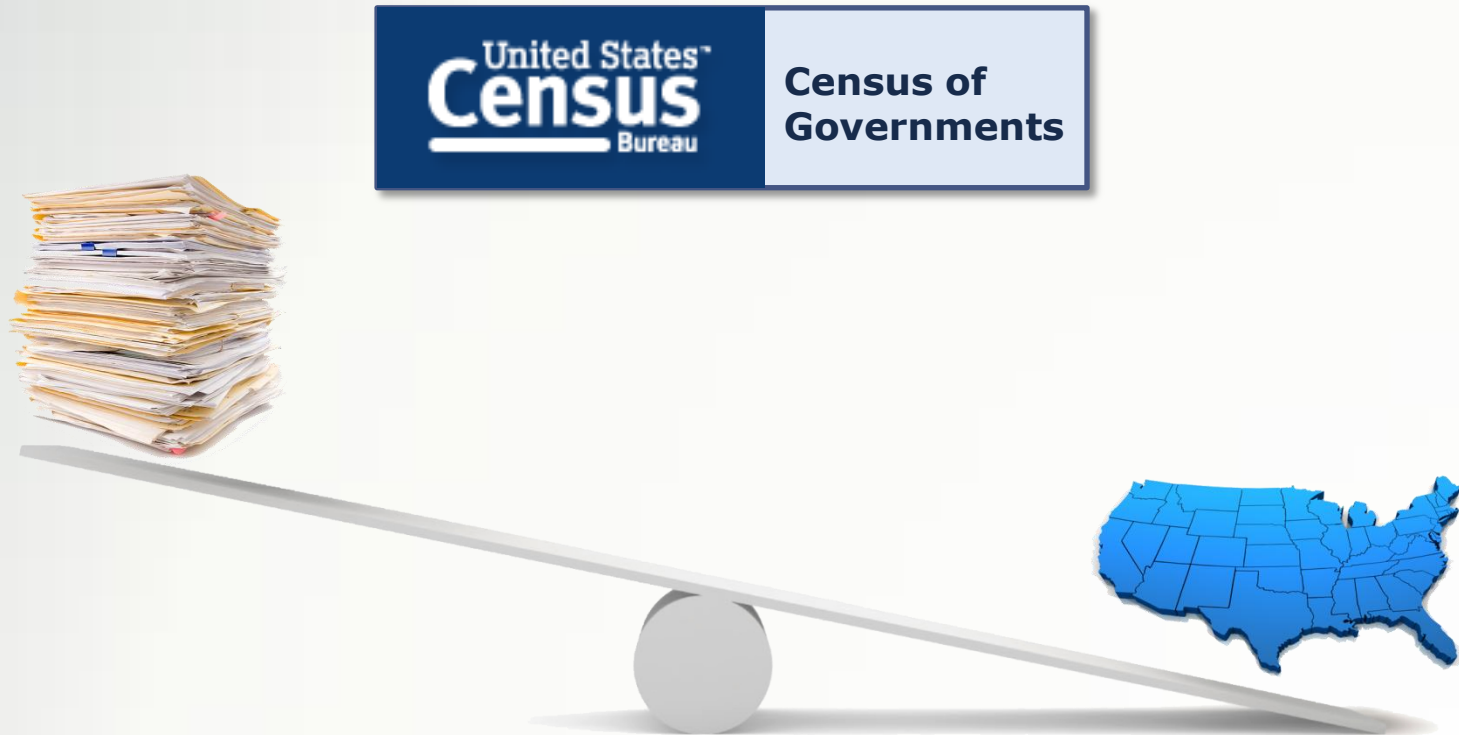


Dr. Arthur C. Nelson,  
University of Utah



Dr. Michael Oden,  
University of Texas

# Broad Application / Level of Detail



# Regional Fiscal Impact Model (ReFIT): Transparent and Open-Source

The screenshot displays the Microsoft Excel interface for the ReFIT model. The spreadsheet is titled "LOCAL INPUTS & ASSUMPTIONS" and is set for "Multnomah County, Oregon". The data is organized into several sections:

- Population and Employment:** Rows 8-18 show data for County Pop., 24/7 County Pop., County Employment, County Housing Units, City Pop., 24/7 City Pop., and various employee categories (Retail, Office, Industrial, Hotel).
- Property Tax Rates:** Rows 19-28 show rates for Residential and Commercial property, including County, Municipal Average, and Schools Average.

	Base Assumption	Override	Model Input
County Pop.	728,714		728,714
24/7 County Pop.	679,696		679,696
County Employment	369,456		369,456
County Housing Units	319,601		319,601
City Pop.			
24/7 City Pop.			
Retail Employees			
Office Employees			
Industrial Employees			
Hotel Employees			

	Rate
Residential	
County	
Municipal Average	
Schools Average	
Other	\$0.00
Residential Total	
Commercial	
County	
Municipal Average	

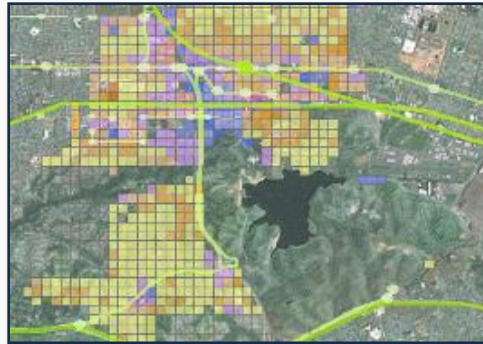


# envision tomorrow™

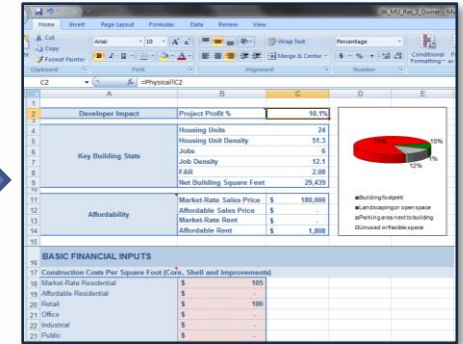
a suite of urban and regional planning tools



Prototype Builder



Scenario Builder



ReFIT Model

## Land Use Scenario



- Households
- Housing Units
- Employment
- New Roads
- Utilities



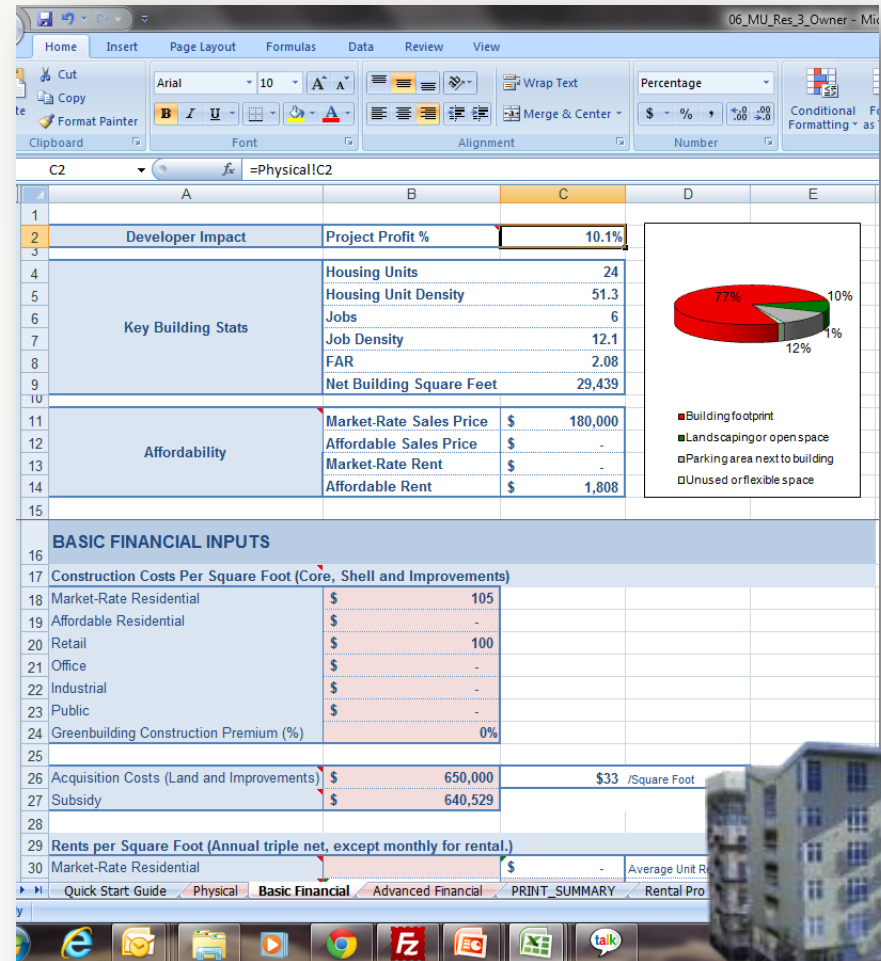
## ReFIT Model

LOCAL INPUTS & ASSUMPTIONS 0			
County Name (List): 0			
Multnomah County, Oregon			
Base Assumption Override Model Input			
8 County Pop.	728,714		728,714
9 24/7 County Pop.	679,696		679,696
10 County Employment	369,456		369,456
11 County Housing Units 0	319,601		319,601
12 City Pop. 0			
13 24/7 City Pop. 0			
14 Retail Employees 0			
15 Office Employees 0			
16 Industrial Employees 0			
17 Hotel Employees 0			
Property Tax Rates (per \$1000 assessment)			
Residential Rate			
20 Residential			
21 County 0			
22 Municipal Average 0			
23 Schools Average 0			
24 Other 0			
25 Residential Total		\$0.00	
Commercial Rate			
26 Commercial			
27 County 0			
28 Municipal Average 0			

- Revenue
- Capital Outlays
- Operations & Maintenance Costs
- Average Household Tax Burden

# Scenario Building Blocks

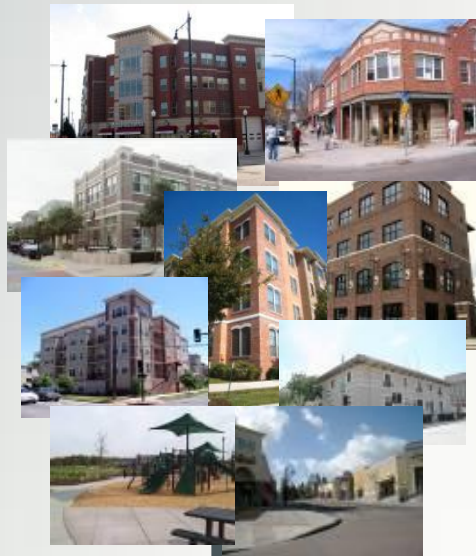
- Density and Design
- **Rents, Sales Prices**
- **Market Value**
- **Employment**
- **Population**
- Costs and Affordability
- Energy and Water Use





# Development Type Mix

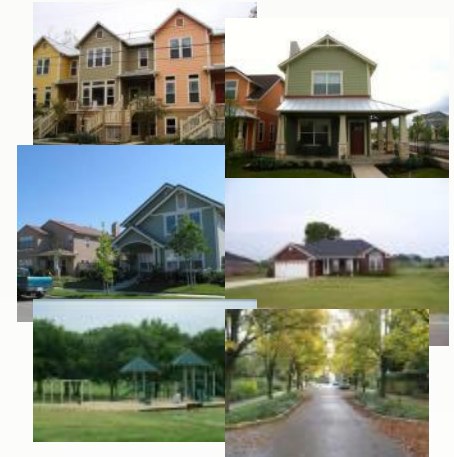
A Variety of Buildings, Streets and Amenities Create a “Place”



**Town  
Center**



**Medium-Density  
Residential**



**Single-Family  
Residential**

# Town Center

Housing Units per Acre	Jobs per Acre
20 DU/Gross Acre	30 Jobs/Gross Acre



# Traditional Neighborhood

**Housing Units per  
Acre**

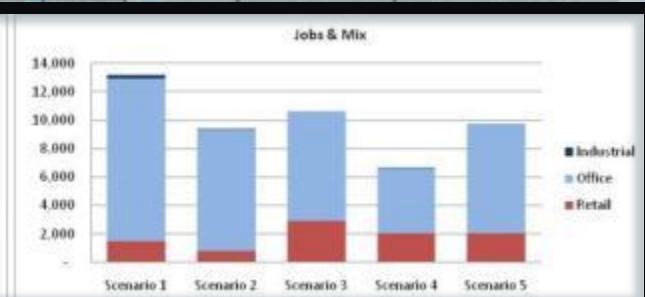
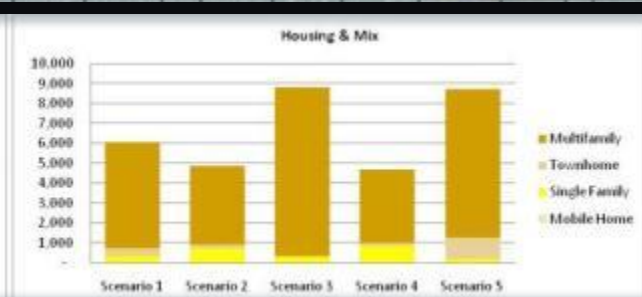
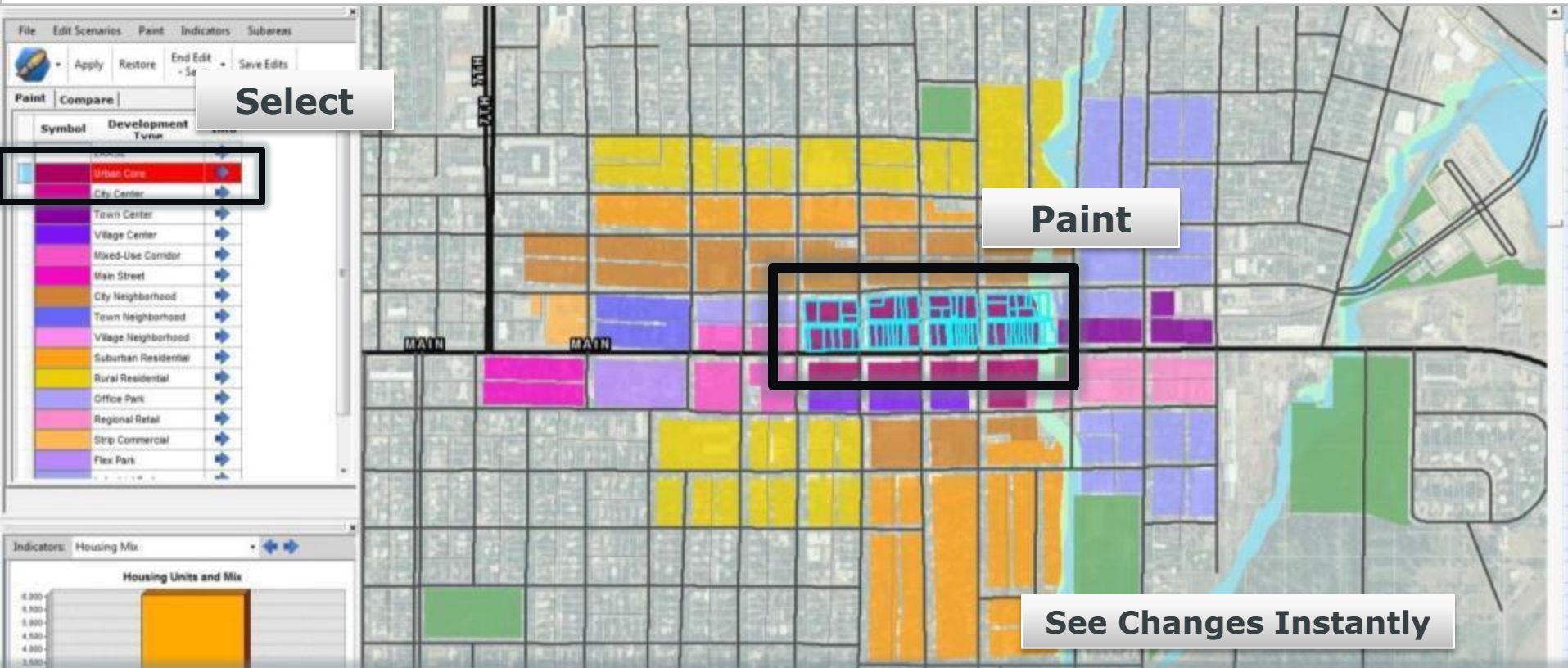
**Jobs per Acre**

8 DU/Gross Acre

2 Jobs/Gross Acre

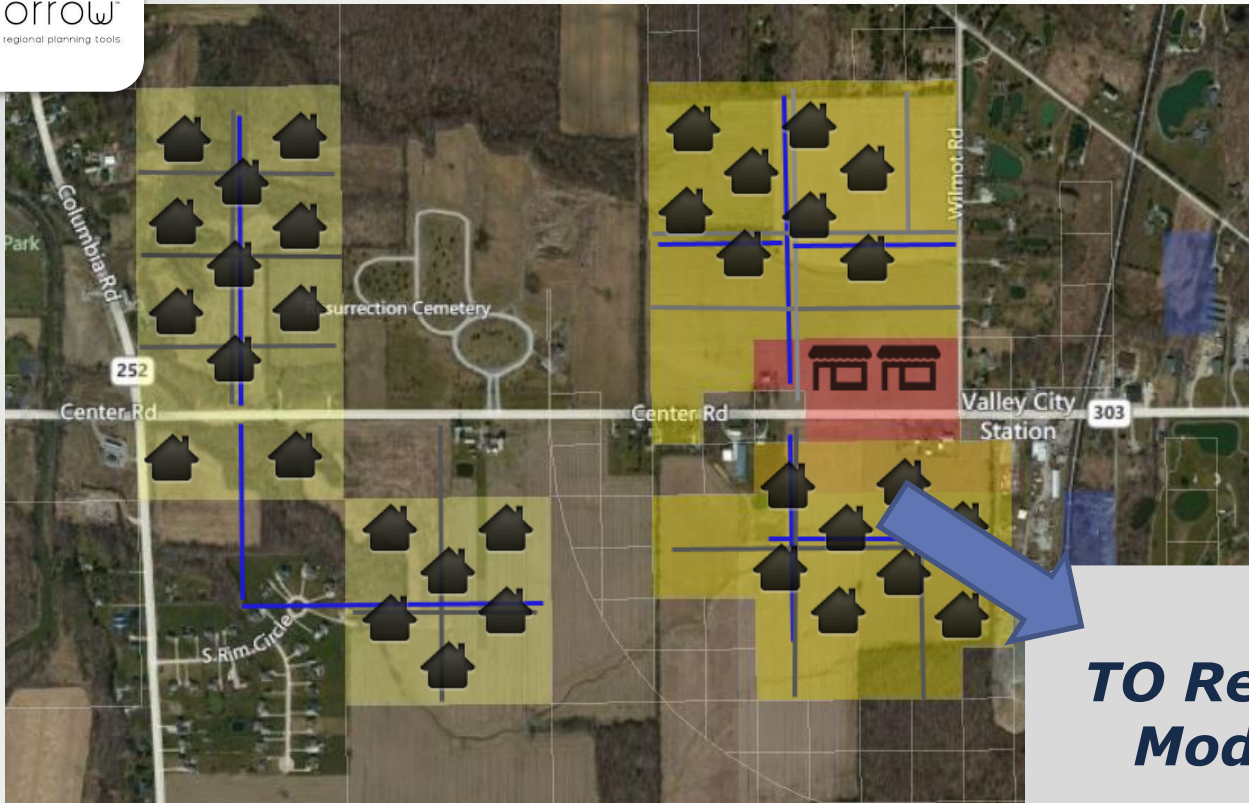


# Real-time Scenario Building and Evaluation



# Tracking Revenue and Expenditures

envision  
tomorrow<sup>™</sup>  
a suite of urban and regional planning tools



**NEW  
CONSTRUCTION**

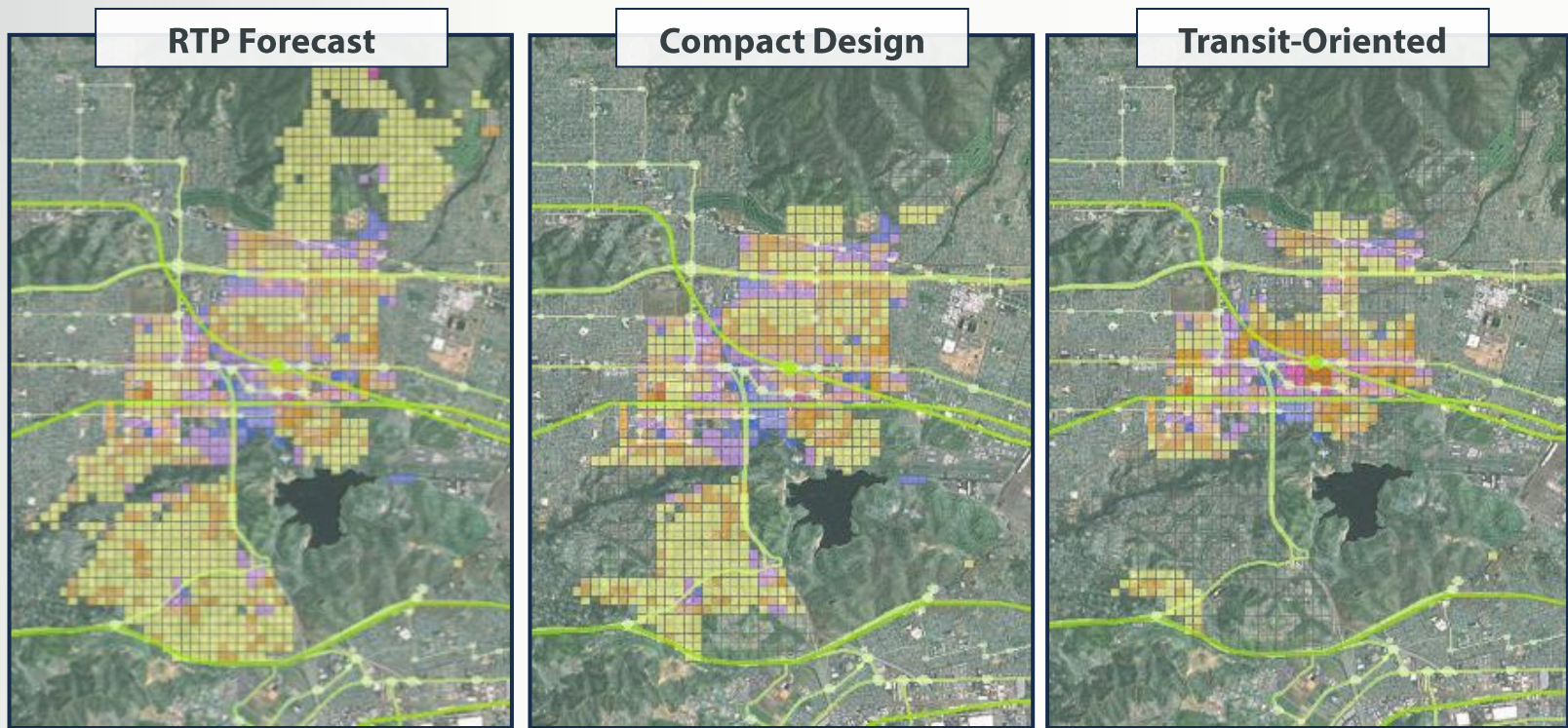
**HOUSEHOLDS +  
EMPLOYMENT**

**CAPITAL OUTLAYS  
(INFRASTRUCTURE  
COSTS)**

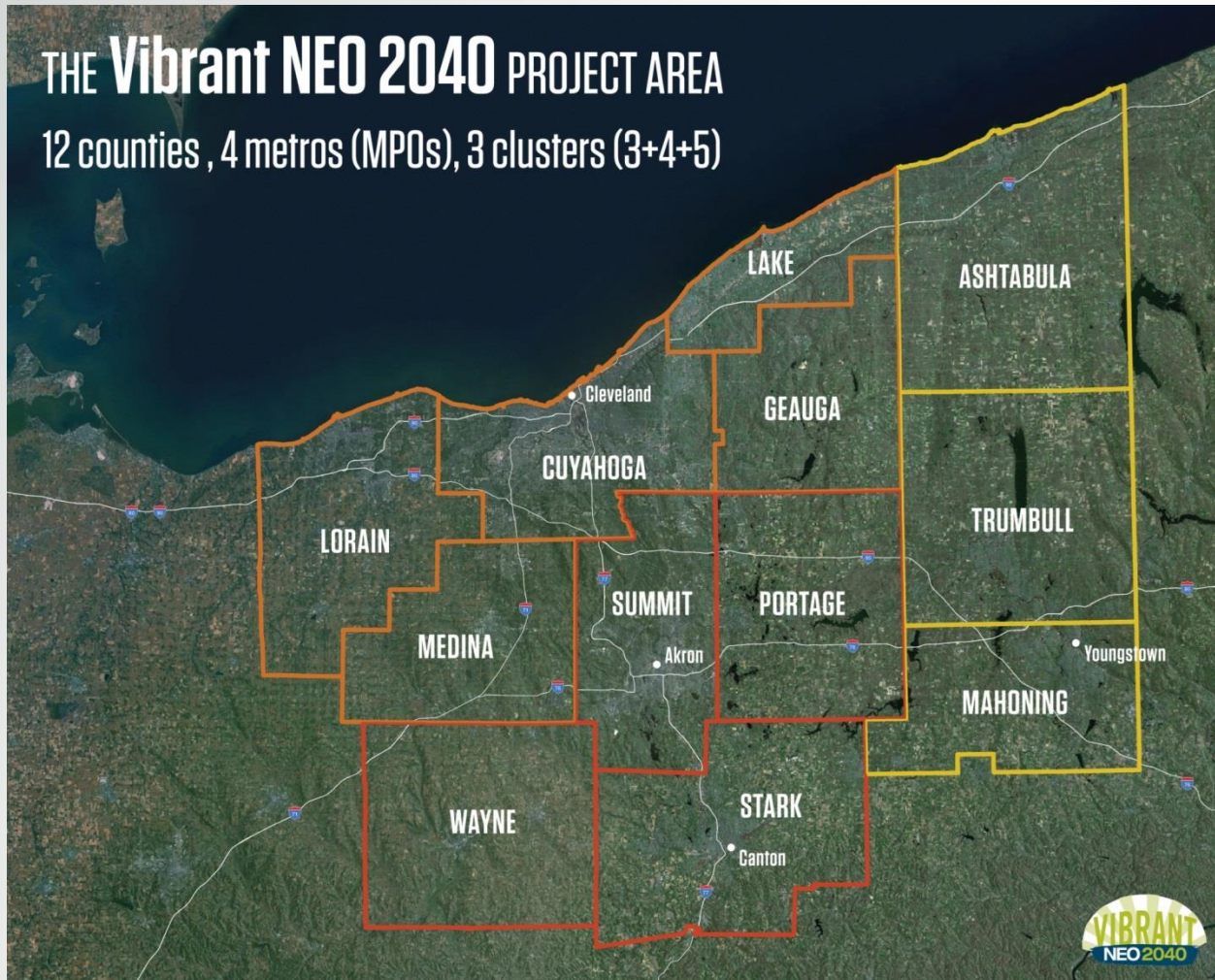
***TO ReFIT  
Model***

# Compare Multiple Scenarios

- Test land use policies
- Experiment with new development patterns



# Case Study: Vibrant NEO 2040



# Many Layers of Taxation

*Northeast Ohio is highly fragmented:*

12 Counties

+201 Municipalities

+183 Townships

+191 School Districts

+116 Special Districts

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**= 700+ Taxing Entities Across the Region**



Today, Cleveland has less than half the population that it had in 1960.

**396,815**

MORE THAN 1.4 MILLION READERS IN PRINT AND ON CLEVELAND.COM WEEKLY • \$2.00 (COVER) • \$1.50 (REGULAR) • \*\*

Opinion divided on powerful painkillers

Can Youngstown shift gears from Rust Belt to Tech Belt?

Tax laws a burden on business

**CITIELE**  
CITY EMPLOYMENT

Restore neighborhoods

School plan h limits

Well-off districts in region won't see as much benefit

Business Journal

Petitions Filed for Citizen's Bill of Fracking Rights

Thursday Young tributary opened trial

CantonRep.com

Healy: Canton is 'moving forward'



Yet population and job growth are stagnant region-wide



Is this fiscally sustainable?

Council to discuss \$7.1M plan to enhance waterfront

Filed by Evan Goodenow March 18th, 2013 in Top Stories  
Print this story  
Read comments and discuss this story





























LORAIN — A \$7.1 million borrowing plan that proponents hope will spur waterfront development was approved by the City Council at its 6 p.m. meeting.

What to do with city's abandoned houses?




Council may back study to push demolition, but some members object

# THE FOUR SCENARIOS



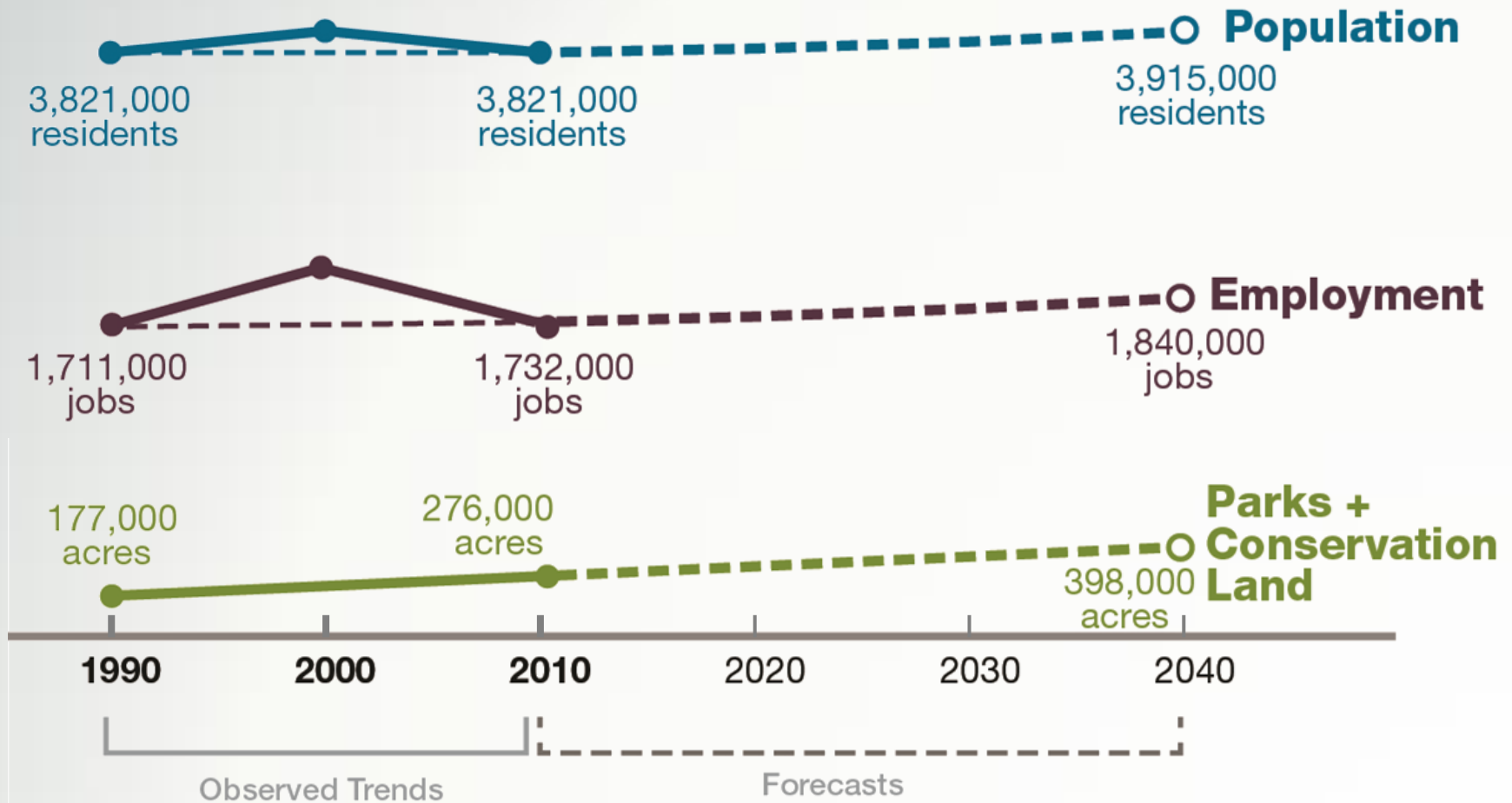
	Population 2040	Employment 2040	Population Growth 2010-2040	Employment Growth 2010-2040	New Parks + Conservation Land	New Homes (# and type)	New Abandoned Homes
<b>“Trend” Scenario</b>	 3,914,600 residents	 1,839,800 jobs	 + 93,430 new residents	 + 108,100 new jobs	 + 121,500 new acres of parks + conserved land	 + 276,800 new housing units	 + 174,900 new abandoned housing units
<b>“Grow the Same” Scenario</b>	 4,696,400	 2,232,700	 + 875,000	 + 501,000	 + 121,500	 + 546,000	 + 93,100
<b>“Do Things Differently” Scenario</b>	 3,914,600	 1,839,800	 + 93,430	 + 108,100	 + 288,500	 + 120,000	 + 19,800
<b>“Grow Differently” Scenario</b>	 4,696,400	 2,232,700	 + 875,000	 + 501,000	 + 205,600	 + 459,000	 + 2,400

Types of Housing

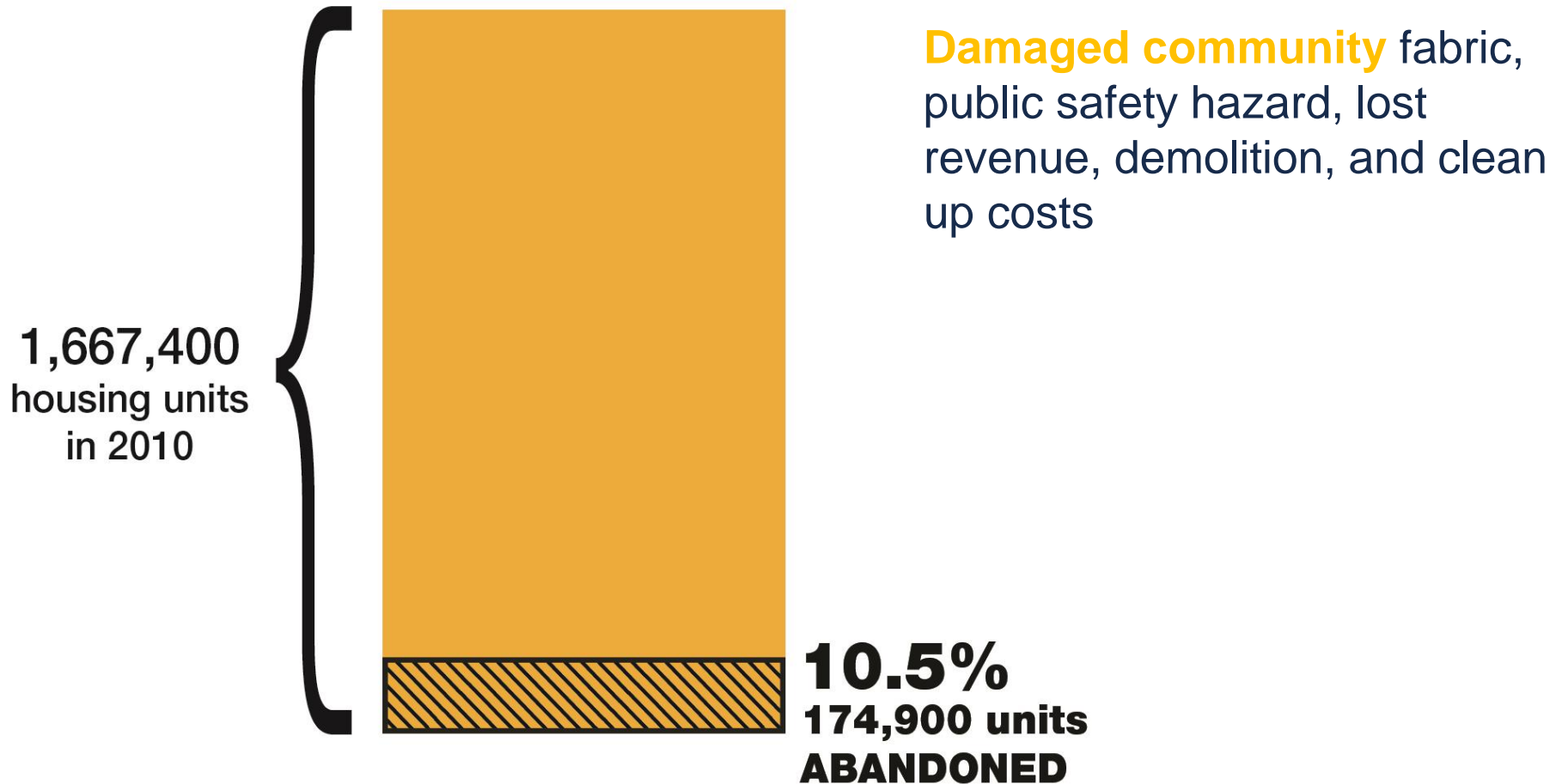
-  Urban Home or Multifamily Apartment
-  Suburban Home
-  Rural Home



# What Happens if Past Trends Continue?



# Impacts of Abandonment



# 18 units abandoned per day from now until 2040



# \$525 million

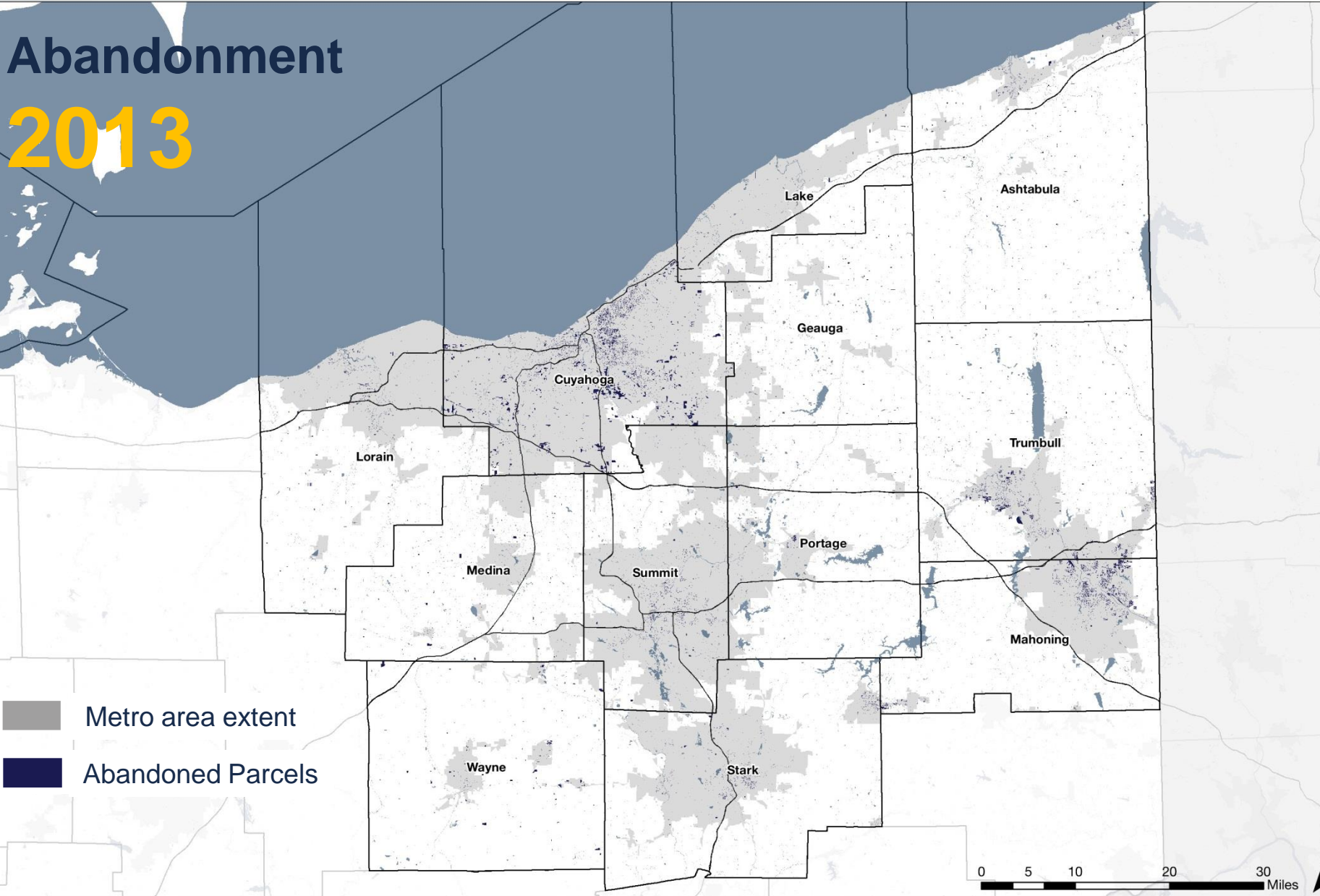
## in demolition costs alone



Assuming 30% of all abandoned units are demolished at a cost of \$10,000 per unit



# Abandonment

# 2013



-  Metro area extent
-  Abandoned Parcels

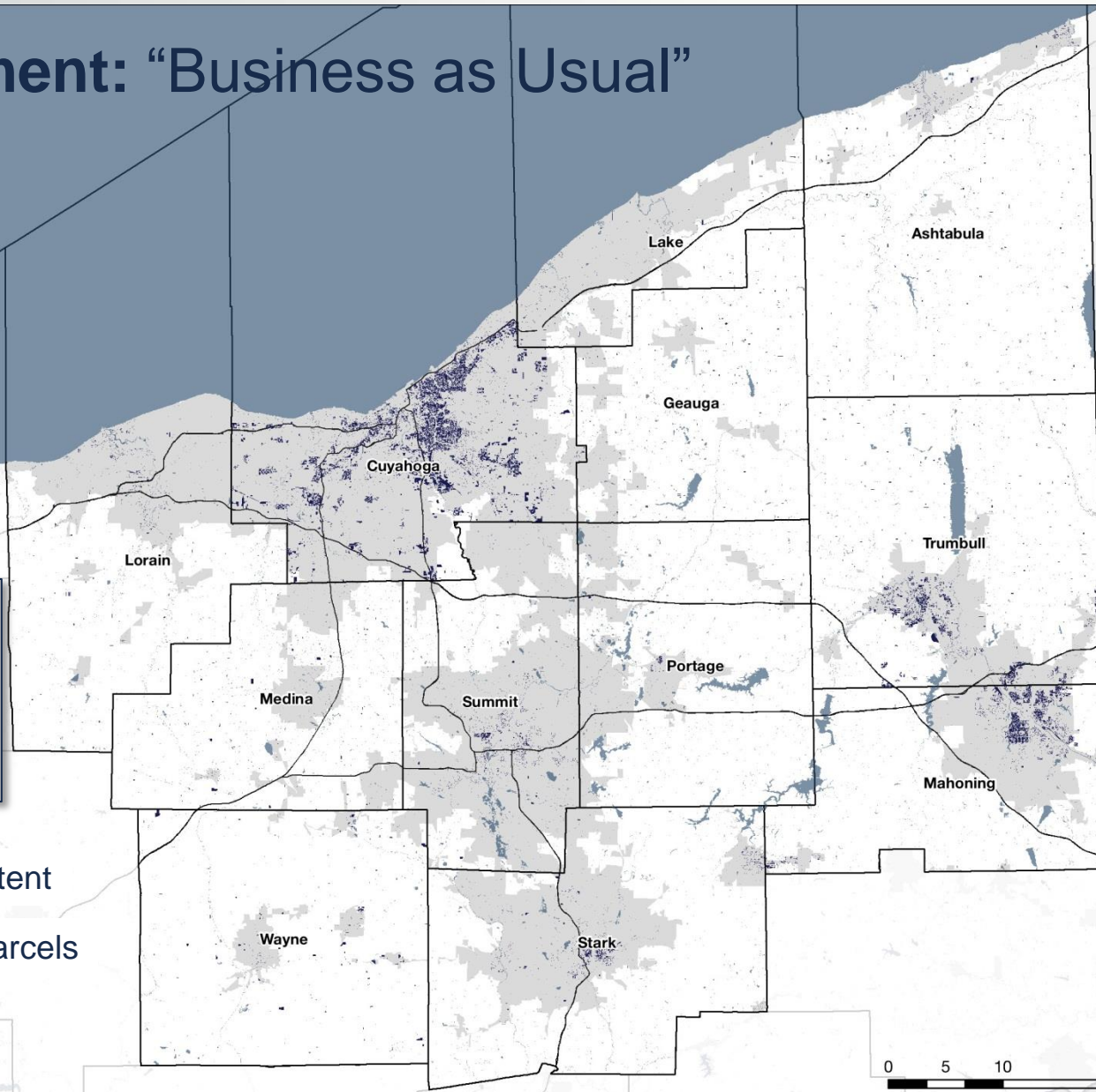


# Abandonment: "Business as Usual"

# 2040

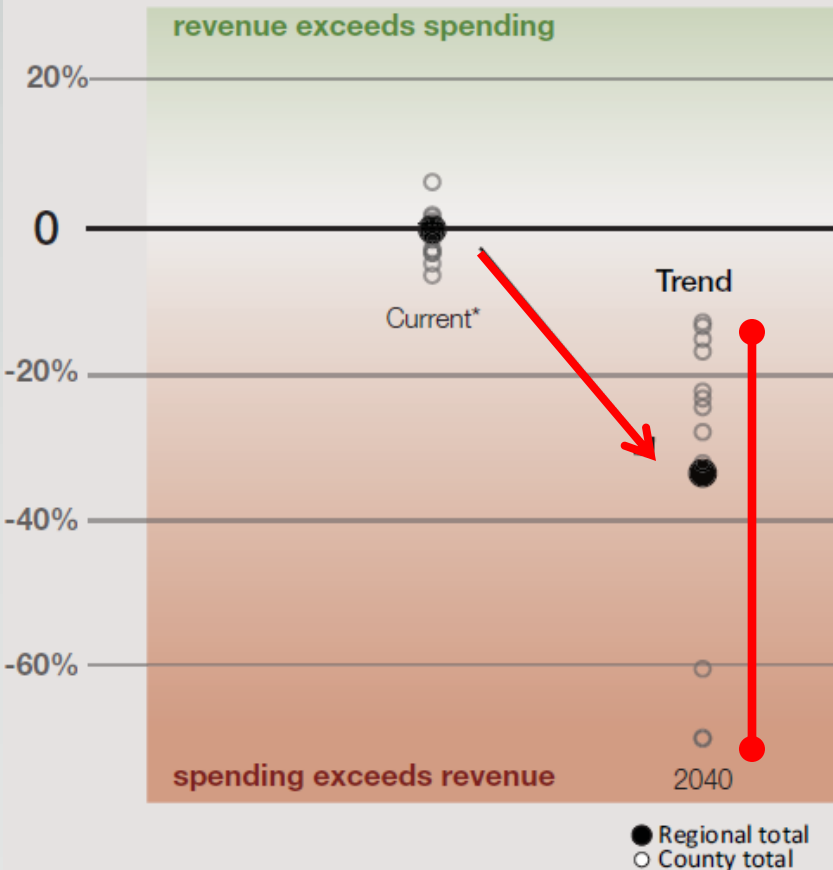
180,000  
Abandoned  
Housing  
Units

- Metro area extent
- Abandoned Parcels



# “Business as Usual”

Local Government Revenue to Spending Ratio by County



## Green = Fiscally Strong

- Values greater than 0 mean that the government is bringing in more revenue than it is spending
- These budget surpluses indicate more money is available to finance new infrastructure projects, fund school systems, and maintain existing infrastructure

## Red = Fiscally Weak

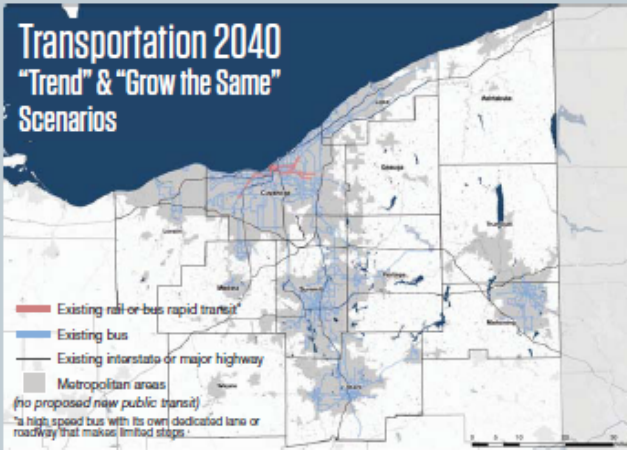
- Values less than 0 mean that the government is spending more money than it is bringing in
- These budget deficits could mean higher taxes or decreased levels of service

# Testing Alternative Policies

*what if we prioritize*

## AUTO-ORIENTED DEVELOPMENT?

### Transportation 2040 "Trend" & "Grow the Same" Scenarios



Roads are what we use most, so that's where our tax dollars should go. Transit's not a priority here.

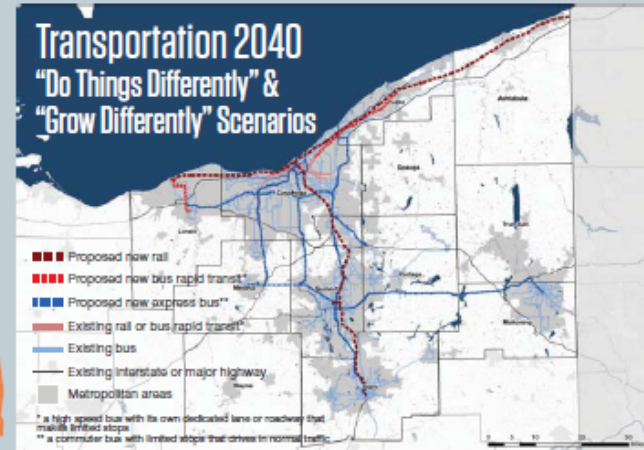


The transportation strategy behind this network is a continuation of current transit service and an investment in new roads, road expansions, and new interchanges to service the development at the edges of today's urbanized area. These investment priorities are consistent with the dispersed, auto-oriented development found in the "Trend" and "Grow the Same" scenarios.

*what if we prioritize*

## PUBLIC TRANSIT & WALKABILITY?

### Transportation 2040 "Do Things Differently" & "Grow Differently" Scenarios



I'd love to commute to work by train, but currently I don't have reliable service. In these scenarios, I can own a car but don't need to use it for every trip.



These scenarios represent a significant additional investment in public transportation. Commuter rail connects communities along Lake Erie and south from Cleveland down to Canton. Express bus and bus rapid transit connect many of the smaller communities around the Cleveland and Akron metro areas and extend a commuter bus line from Akron to Youngstown. These routes connect current job and population centers and serve as anchors for future compact, transit oriented development in the "Do Things Differently" and "Grow Differently" scenarios.

	"Trend"	"Grow the Same"	"Do Things Differently"	"Grow Differently"
Average daily vehicle miles traveled per household*	23.7 miles	25.4 miles	22.5 miles	22.0 miles
Average weekly non-auto trips per household*	8.5 trips	8.2 trips	10.0 trips	9.6 trips

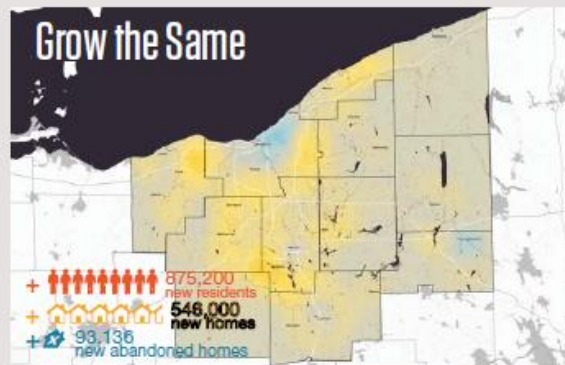
\* Only household-based trips included

**THE TRANSPORTATION NETWORK  
INFLUENCES HOW PEOPLE GET AROUND  
AND HOW MUCH THEY DRIVE.**

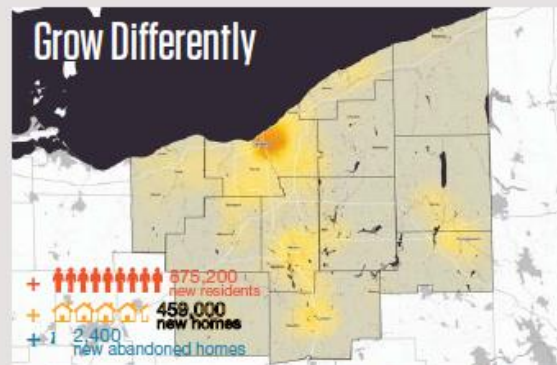
# Testing Alternative Policies

## OUTWARD MIGRATION IN THE FOUR SCENARIOS

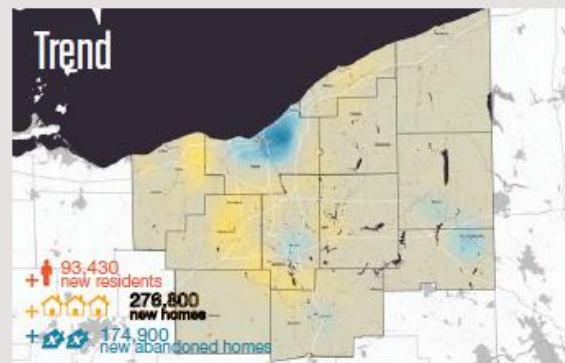
Where are people moving in the four scenarios?



"Grow the Same" has the same emphasis on outward development as "Trend," but higher growth in this scenario reduces the amount of abandonment in existing communities.



"Grow Differently" has the same increase in growth as "Grow the Same" and the same focus on reinvestment as "Do Things Differently." As a result, abandonment is the lowest.

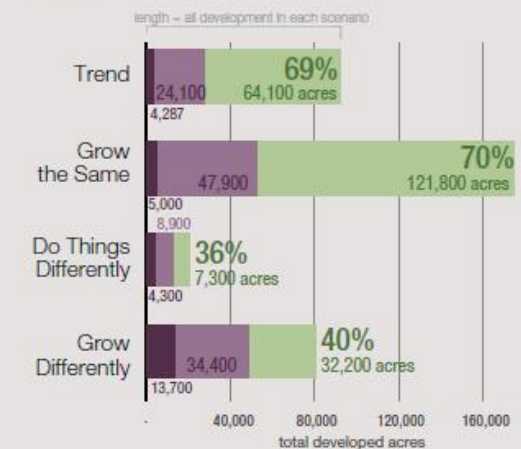


"Trend" has a nearly stable population but sizable growth away from existing communities. As a result, abandonment is highest.



"Do Things Differently" focuses new development in and near existing areas. Abandonment is significantly lower than "Trend" even though there is no additional population growth because there are fewer "extra" housing units constructed.

### Development Location

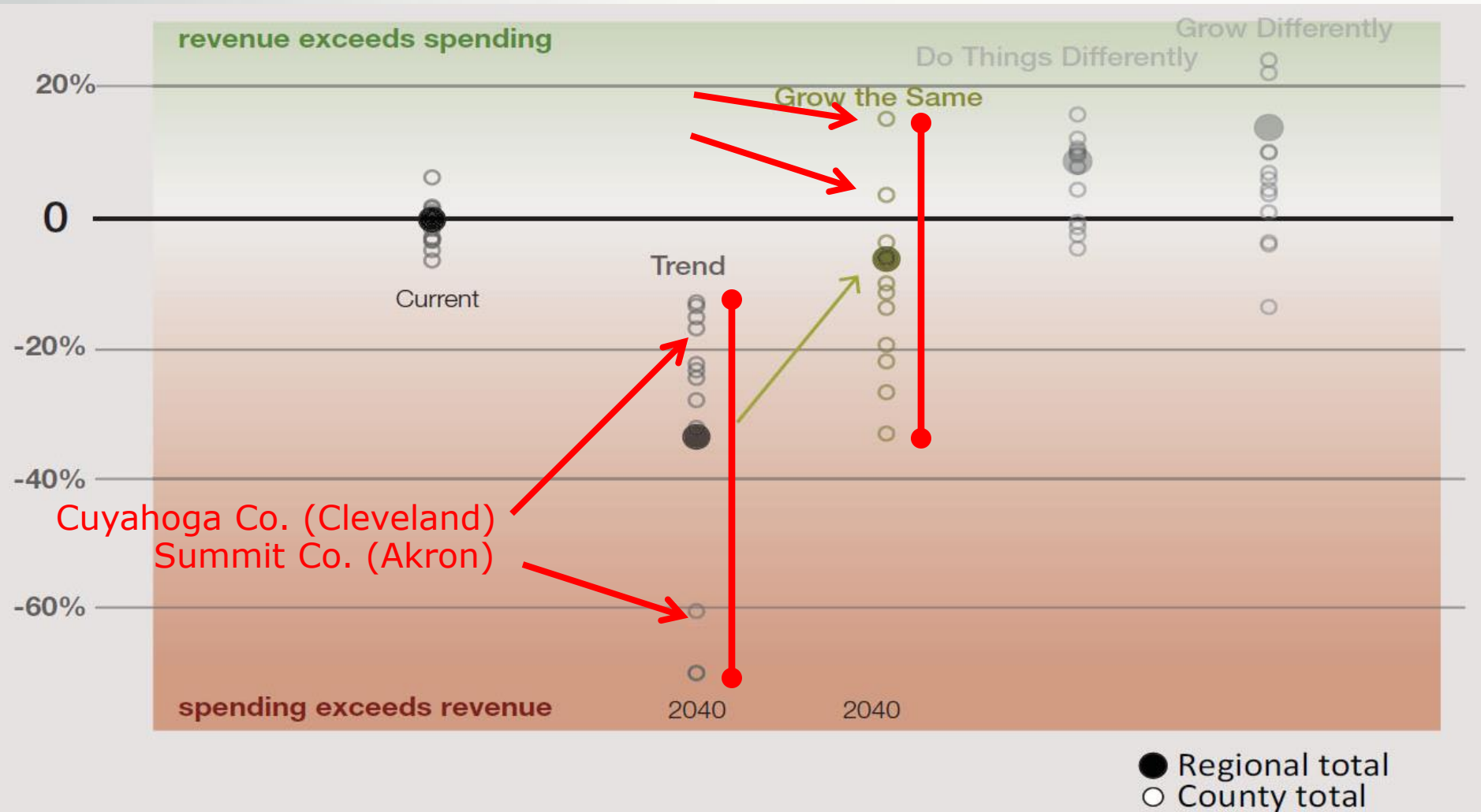


# Testing Alternative Forecasts



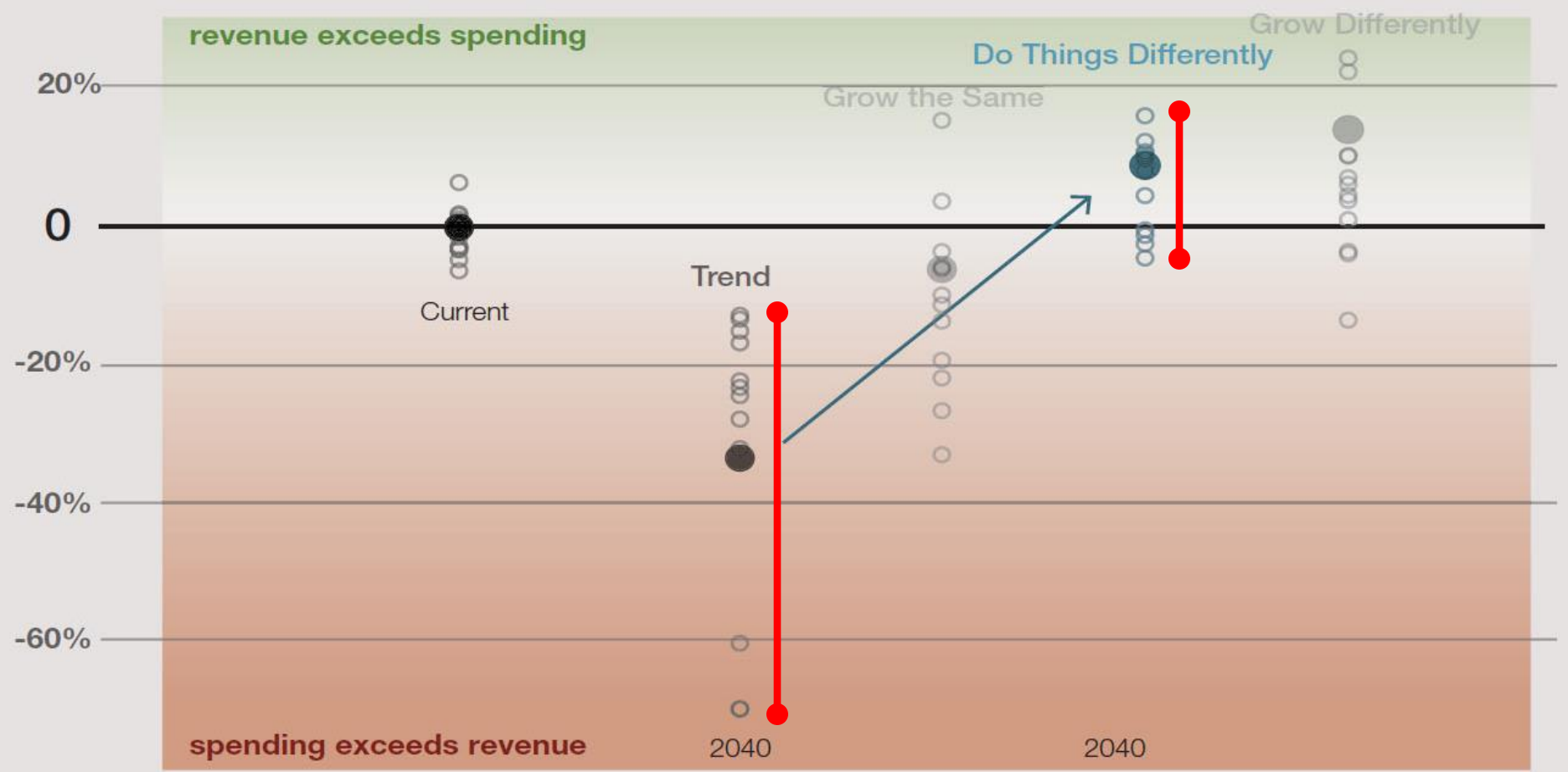
# "GROW THE SAME"

*What if we grow and don't do things differently?*



# “DO THINGS DIFFERENTLY”

*What if we do things differently and our growth stays the same?*



● Regional total  
○ County total

**Continued sprawl will tax future  
county budgets**

**Dangers of the cornfield option**

*By Steve Hoffman*

**Northeast Ohio is on the glide path to a grim 2040:  
editorial**

**NE Ohioans explore possible "Alternative  
Scenarios"**

*Submitted by kholloway*

**Consortium seeks strategy to avert dim future for region**



# No more 'Business as Usual'

Let me tell you a story about the future of Northeast Ohio. This story, called "Business As Usual," describes Northeast Ohio's future if we maintain our current approach to land use and resource allocation.



## **Initiative 4.2: Include traditional small-lot, compact single-family and townhouse residential designations in zoning codes throughout the region.**

### **LOCAL EXAMPLE: Mill Creek Rehabilitation Center Redevelopment**

The former state rehabilitation center along Cleveland's Mill Creek was demolished in 1995, leaving a large vacant site along Mill Creek in an existing compact residential neighborhood. The site was re-imagined as a mix of small-lot affordable housing options centered on a town square and gathering space that also connects to the adjacent residential community.



**WHAT THIS MEANS.** Declining family sizes are a steady, multi-generational trend in both regional and national demographics. Young people are choosing to delay marriage and childbearing, having smaller families as a result; baby boomers are looking to downsize. These realities are likely driving the shifts in preferences toward more compact housing options such as townhomes and small-lot, single-family homes. In a recently released quarterly survey, the National Association of Realtors showed a

gr

A:

C

### **Recommendation 1: FOCUS NEW RESIDENTIAL AND COMMERCIAL DEVELOPMENT ON SITES WITHIN ESTABLISHED COMMUNITIES**



**Initiative 1.5: Require the users of new sewer extensions that serve previously unsewered areas to pay the full cost of service.**

**WHAT THIS MEANS.** Sanitary sewer and wastewater service is a major determinant of regional development patterns. Sanitary sewer is unique as it is a major infrastructural expense that is borne mostly, even entirely, by local governments: capacity enhancements to roads are partially

financed by federal funds passed through Metropolitan Planning Organizations; and electric

# Other ReFIT Projects:



Thank you!