



## **Broadening Urban Investment to Leverage Transit (BUILT) in Cleveland**

**Center for Neighborhood Technology  
April 2011**



**Greater Cleveland is at a turning point.** Unemployment in the region has remained above 9 percent since 2009. Declines in automobile manufacturing have sent shockwaves of job loss rippling through the region's suppliers and producers. Facing unemployment, rising gas costs, and economic uncertainty, homeowners have fallen behind on mortgages and entered foreclosure. Now, more than ever, the state's infrastructure investments must bolster the economy and save its residents money.

Despite its troubles, the region remains a powerhouse. According to the U.S. Bureau of Economic Analysis, Greater Cleveland generated \$104 billion dollars of economic activity in 2008 – 22 percent of Ohio's Gross State Product. Yet investments in automobile-centric infrastructure have undermined this sizable economy, rather than reinforced it. In an environment where highways have fostered extensive greenfield development, CNT has found that:

- Homebuilders constructed 48,831 more units than the market could support, just since 2000.
- Residents spend more than eight billion dollars per year just to cover their transportation needs — gas alone siphons more than one billion dollars of wealth out of the local economy.
- Foreclosures have spread to neighborhoods with high transportation costs, where as many as one in three properties are overleveraged and the possibility of default runs high.
- National investors rank Greater Cleveland near the very bottom as a market for multifamily and mixed-use development.
- Retirees and younger workers will demand more compact development through 2030, but as a whole these kinds of developments are in short supply in Cleveland.

At the same time, Greater Cleveland possesses enviable assets that could be mobilized towards an environmentally sustainable form of growth:

- Downtown Cleveland and University Circle anchor the regional economy, with ample room to grow within the central business district and along Euclid Avenue,
- Forty-four miles of rail and bus rapid transit offer connections between downtown and much of the rest of the region.
- The Port of Cleveland could save shippers fuel and spark investment in the form of Cargo-Oriented Development.
- Opportunities for transit-oriented development exist around Public Square, University Circle, and West Side Market.

Now is the time to act. The federal commitment to urban sustainability has created long-needed tools to spur economic development in a fiscally and environmentally responsible way. The federal Sustainable Communities partnership between USHUD, USDOT and USEPA, the TIGER grant program administered by USDOT, and a proposed national infrastructure bank all favor urban investments that create jobs while reducing carbon emissions and improving livability. For communities across Northeast Ohio, these resources represent a new way forward.

This report presents a policy blueprint to make these opportunities a reality. In a time of strapped budgets, municipal governments, regional planners, business advocates, foundations, and non-profits must work together to maximize the impact of their efforts. With coordinated action, Greater Cleveland can forge a new, sustainable future centered on its transportation assets, economic strengths and resourceful residents.

Sincerely,



Scott Bernstein  
President



Kathryn Tholin  
Chief Executive Officer

# **Table of Contents**

<b>CLEVELAND’S SUSTAINABLE GROWTH CHALLENGE</b> .....	<b>1</b>
<b>THE WIDENING GAP BETWEEN HOUSING SUPPLY AND DEMAND</b> .....	<b>1</b>
<b>SUBURBAN EXPANSION IS STRETCHING GOVERNMENT BUDGETS</b> .....	<b>2</b>
<b>TRANSPORTATION COSTS ARE SIPHONING DOLLARS FROM THE LOCAL ECONOMY</b> .....	<b>3</b>
<b>GAS COSTS EXPOSING CLEVELAND HOMEOWNERS TO MORE FORECLOSURES</b> .....	<b>6</b>
<b>2030 FORECASTS PROJECT BUSINESS AS USUAL</b> .....	<b>8</b>
<b>A CHANGING HOUSING MARKET</b> .....	<b>10</b>
<b>NATIONAL INVESTORS PREFER URBAN DEVELOPMENT</b> .....	<b>10</b>
<b>DEMOGRAPHICS SPUR DEMAND FOR MIXED-USE RENTAL HOUSING</b> .....	<b>11</b>
<b>CLEVELAND MARKET FOR MIXED-USE IS UNTAPPED</b> .....	<b>12</b>
<b>RESILIENCE AND GROWTH IN A WEAK ECONOMY</b> .....	<b>14</b>
<b>OPPORTUNITIES FOR GROWTH AMID SYSTEMIC WEAKNESS</b> .....	<b>14</b>
<b>SOME CLEVELAND INDUSTRIES SHOW RESILIENCE AND GROWTH</b> .....	<b>14</b>
<b>“OLD” AND “NEW” INDUSTRIES PROVIDE BALANCED ECONOMIC GROWTH</b> .....	<b>16</b>
<b>JOB DENSITY CAN LEAD TO INNOVATION</b> .....	<b>16</b>
<b>ECONOMIC ACTIVITY IS CLUSTERED AROUND JOB CORRIDORS</b> .....	<b>17</b>
<b>JOB CORRIDORS CREATE AND CIRCULATE REGIONAL WEALTH</b> .....	<b>18</b>
<b>FREIGHT ASSETS COULD SUPPORT CARGO-ORIENTED DEVELOPMENT</b> .....	<b>20</b>
<b>THE GREAT LAKES: UNDERUTILIZED ASSET, EMERGING OPPORTUNITY</b> .....	<b>20</b>
<b>CLEVELAND’S WATER FREIGHT ADVANTAGE</b> .....	<b>21</b>
<b>CARGO-ORIENTED DEVELOPMENT BUILDS ON EXISTING ASSETS</b> .....	<b>21</b>
<b>CUYAHOGA RIVER, COD ANCHOR</b> .....	<b>23</b>
<b>STRONGEST MARKETS FOR TRANSIT-ORIENTED DEVELOPMENT</b> .....	<b>25</b>
<b>TRANSIT CONNECTIONS CAN SPUR INVESTMENT</b> .....	<b>25</b>
<b>UNIVERSITY CIRCLE: REGION’S BEST BET FOR TOD</b> .....	<b>27</b>
<b>DOWNTOWN: CREATING AFFORDABILITY THROUGH REINVESTMENT</b> .....	<b>28</b>
<b>OHIO CITY: WEST SIDE MARKET CAN ANCHOR A UNIQUE MARKET DISTRICT</b> .....	<b>29</b>
<b>A SUSTAINABLE GROWTH STRATEGY FOR CLEVELAND</b> .....	<b>30</b>
<b>SET NEW BENCHMARKS FOR PUBLIC INVESTMENTS AROUND H+T</b> .....	<b>30</b>
<b>CONNECT PEOPLE, JOBS, AND TRANSIT</b> .....	<b>30</b>
<b>TURN CLEVELAND’S FREIGHT ADVANTAGE INTO COD</b> .....	<b>31</b>
<b>DIVERSIFY THE REGION’S HOUSING CHOICES THROUGH TOD</b> .....	<b>32</b>
<b>BIBLIOGRAPHY</b> .....	<b>34</b>

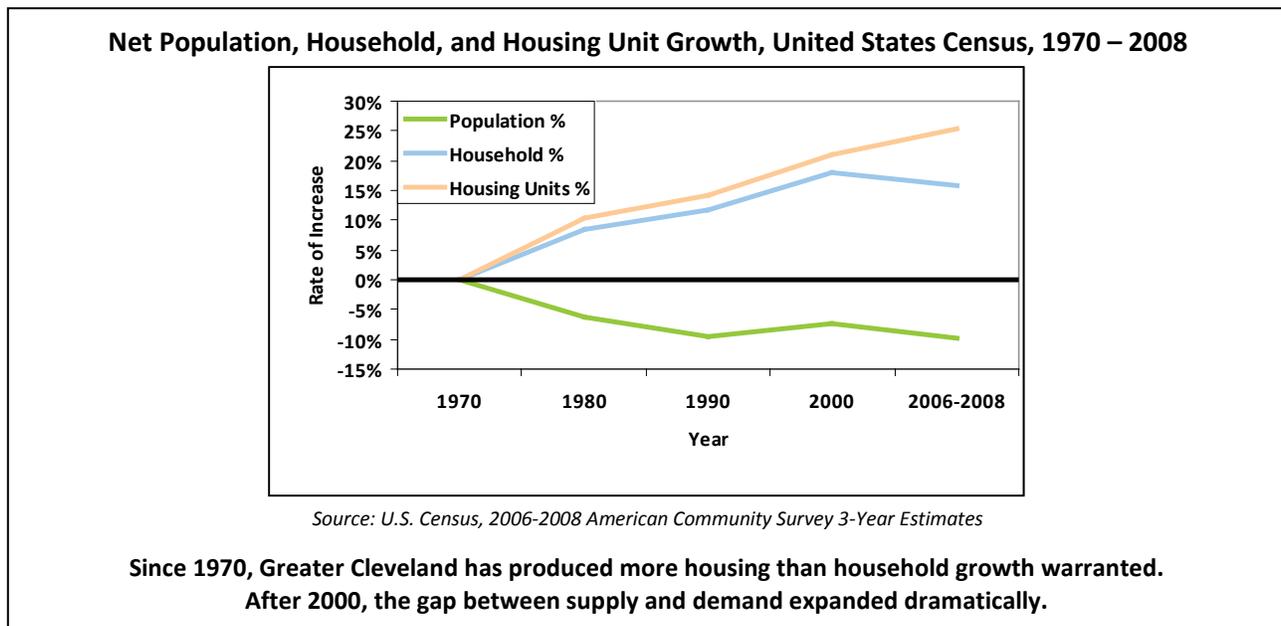
# Cleveland's Sustainable Growth Challenge

In 2009 and 2010, the Office of Governor Ted Strickland and the Center for Neighborhood Technology formed a partnership with regional leaders in Cincinnati, Cleveland, and Columbus. The project, called **BROADENING URBAN INVESTMENT TO LEVERAGE TRANSIT (BUILT) IN OHIO**, sought to identify smart growth strategies for each region by building on existing urban assets. Leaders in Northeast Ohio convened twice to discuss the impact of recent development trends and a policy blueprint for a new way forward. This report is an outcome of those discussions.



## The Widening Gap Between Housing Supply and Demand

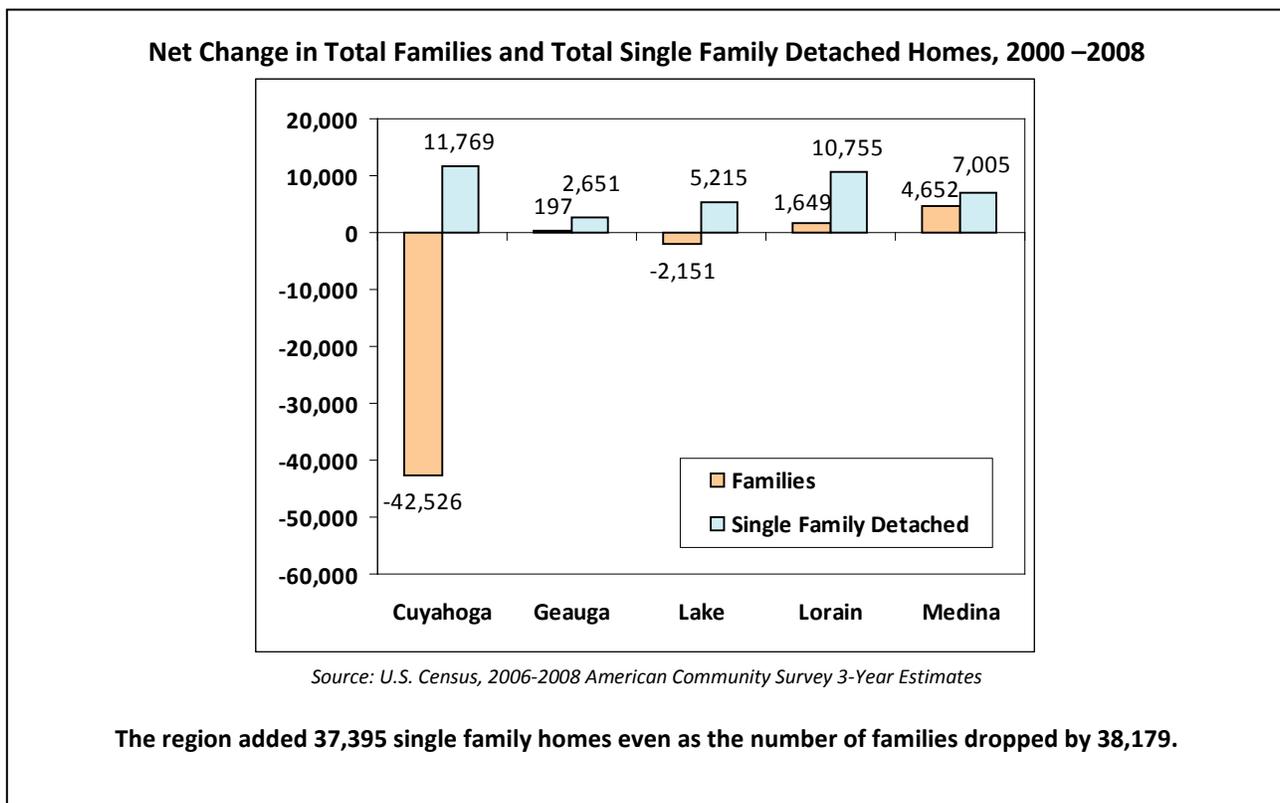
Greater Cleveland is building homes without adding people. According to the U.S. Census Bureau, the Northeast Ohio Areawide Coordinating Agency (NOACA) service area of Cuyahoga, Geauga, Lake, Lorain, and Medina Counties declined in population from 2.3 million to 2.1 million between 1970 and 2008, a net loss of 225,362 residents. Like most Americans, Clevelanders have tended to raise smaller families than previous generations, so the number of households increased by 113,607. These smaller households needed their own homes and apartments, so the region added new housing units as the population shrank. This was sustainable so long as the rate of household growth paralleled that of home construction. Ultimately, new household formation didn't keep pace and the net growth in housing units numbered 191,034 — more than a unit and a half for every new household.



Out-migration to Geauga, Lake, Lorain, and Medina Counties accompanied this overproduction of housing. Cuyahoga County lost 16,640 net households, while these surrounding counties added a net 130,247 households. In the City of Cleveland, population declined by 47 percent. As households have moved from one community to another, they have left behind a glut of abandoned properties and underutilized infrastructure. A report by the Brookings Institute found that between 1982 and 1997, the amount of urbanized land in the Cleveland and Akron regions increased by 32 percent, while density decreased by 24 percent.

This “development without growth” pattern accelerated after 2000. The U.S. Department of Agriculture’s Census of Agriculture reports that the area lost 125 square miles of farmland between 2002 and 2007, over one and a half times the land area of the entire City of Cleveland. But while the region built 32,911 homes between 2000 and 2007, it lost 51,672 households and 94,407 jobs. As a result, the number of vacant units doubled in the region and increased in all five counties.

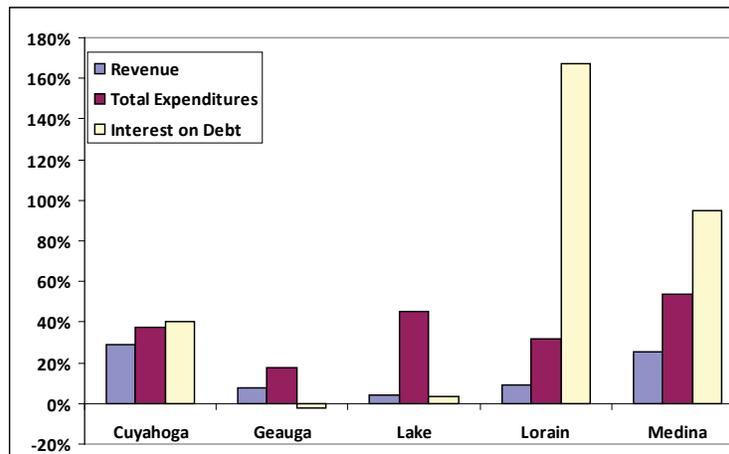
Overproduction of housing was exacerbated by a mismatch in the type of housing supplied and in demand. Since 2000, every county has added thousands more single family homes than families to occupy them. In Cuyahoga County, the total number of families dropped by 42,526 but the number of single family detached properties increased by 11,769. Throughout Greater Cleveland, homebuilders developed properties out of sync with demographic trends. Even Medina County, which experienced the region’s largest net increase in families, added more single family homes than it needed.



### Suburban Expansion Is Stretching Government Budgets

Forty years of development without growth have pushed the Cleveland region to the brink of fiscal crisis. Although the region lost more than 200,000 people between 1970 and 2008, communities with fewer than 50,000 residents, as well as unincorporated communities, experienced significant gains. This redistribution has spawned a landscape of small municipalities with limited economic development or land use planning capacity that often provide duplicative services across arbitrary boundaries and produce a net fiscal drain on the region, with sixty cities, villages, and townships in Cuyahoga County alone. The Brookings Institute found that fragmentation of governments creates a “staggering array of costs” with “duplicate infrastructure, staffing, and municipal services” that could be delivered cheaper at a broader scale. Today, local governments are the single biggest employer in the Cleveland region.

### Percent Change in Per Capita Aggregate Government Revenues, Expenditures and Debts by County, 1997 - 2002



Source: Fund for our Economic Future

**The costs of infrastructure and services for new development cut across county, municipal, and school district budgets. No county saw aggregate revenues keep pace with increases in expenditures and debt interest.**

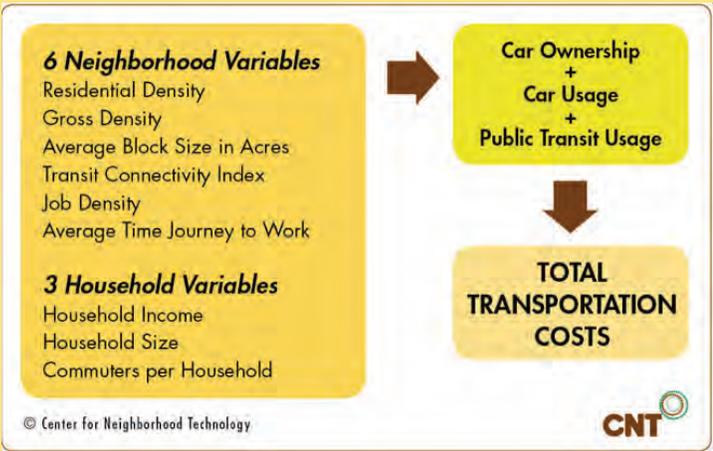
Suburban expansion requires new roads, new sewers and new schools, but Greater Cleveland’s local and county governments have not kept pace with financing that new infrastructure. According to data compiled by the Fund for Our Economic Future between 1997 and 2002, expenditures and debt payments outran population increases in every county in the NOACA region when aggregated across different units of government, up to and including the county. Combined revenues also increased, but it was not enough to sustain these costs. Across the region, total government debt interest increased by 46 percent. These trends are not sustainable.

### Transportation Costs Are Siphoning Dollars from the Local Economy

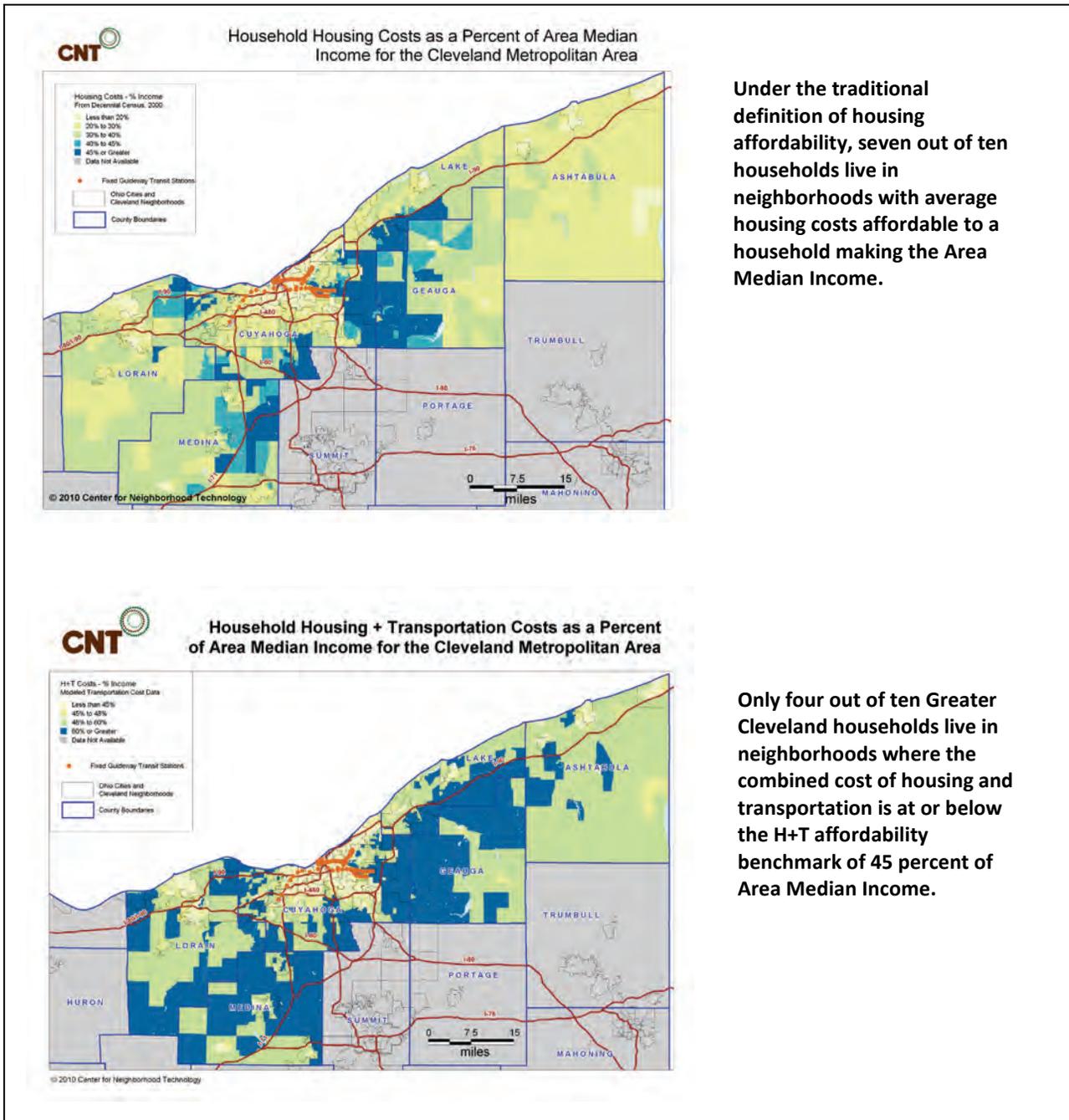
Greater Cleveland’s housing market is generally seen as affordable. Several stakeholders interviewed for this project identified low housing costs as a competitive strength for the regional economy. In the Cleveland-Lorain-Elyria Primary Metropolitan Statistical Area, which includes the NOACA region as well as Ashtabula County, a typical household earning the Area Median Income (AMI) of \$42,089 spent approximately 28 percent of its income on housing costs. This sits below the generally accepted 30 percent affordability benchmark for housing costs as a share of income. In reality, infrastructure investments have exposed households in Greater Cleveland to escalating transportation costs and little transportation choice.

Of course, housing costs vary greatly from community to community. Virtually every neighborhood in the City of Cleveland and its older suburbs provide affordable housing to households earning AMI. However, bedroom communities in Lorain, Geauga, Medina, and Lake Counties may be out of reach for some Clevelanders. In total, 601,790 (67 percent) of the region’s 892,453 households reside in neighborhoods with average housing costs affordable to those earning AMI. This places Cleveland right at the average among the nation’s metropolitan areas.

However, this traditional view of housing affordability fails to consider the cost of transportation, which represents a household’s second largest expenditure and varies greatly from one neighborhood to another. In compact, mixed-use, transit-rich communities, where homes are located near schools, shopping, and work, housing is more expensive but because residents own fewer cars, walk and bike more, and ride public transit more often, they pay less for the combined cost of housing and transportation. Households living in



*The Housing and Transportation (H+T<sup>®</sup>) Affordability Index analyzes the relationship between three dependent variables (auto ownership, auto use, and transit use) and nine main independent household and local environment variables. Census block group level data on household income (both average and median), household size, commuters per household, journey to work time (for all commuters, transit commuters, and non-transit commuters), household density (both residential and gross), block size, transit access, and job access were utilized as the independent, or predictor variables.*



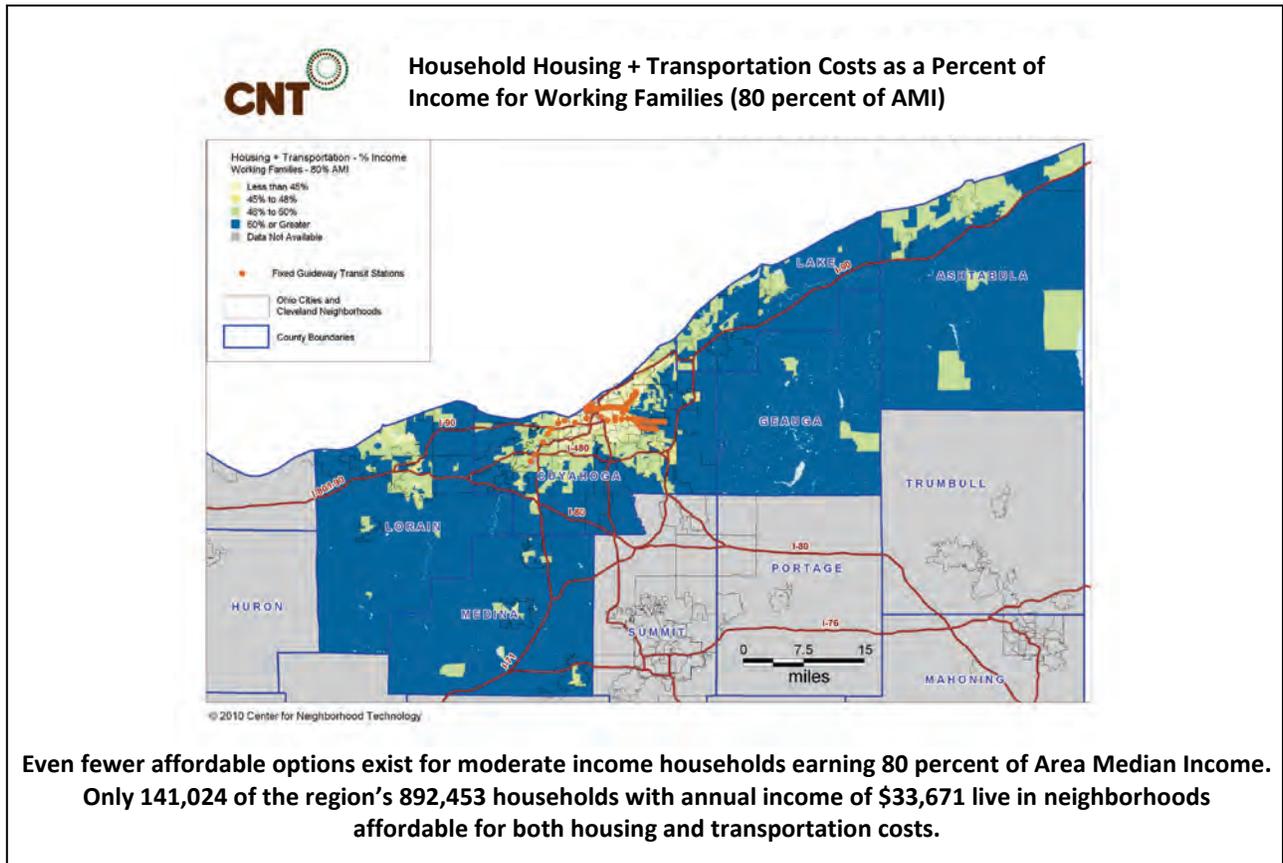
**Under the traditional definition of housing affordability, seven out of ten households live in neighborhoods with average housing costs affordable to a household making the Area Median Income.**

**Only four out of ten Greater Cleveland households live in neighborhoods where the combined cost of housing and transportation is at or below the H+T affordability benchmark of 45 percent of Area Median Income.**

less dense communities lack these transportation options. These residents typically own more cars and drive them further to commute to work, access commercial centers or run simple errands to the cleaners or grocery store—dedicating as much as 30 percent or more of their income to transportation.

Based on research in 337 metropolitan areas, ranging from large cities with extensive transit networks like Chicago, Illinois, to small metros with limited transportation options, such as Fort Wayne, Indiana, CNT identified 15 percent of Area Median Income to be an attainable goal for transportation affordability. When combined with housing costs, this translates into an H+T affordability benchmark of 45 percent.

In Greater Cleveland, high transportation costs shrink affordability dramatically. Shifting from the conventional standard to the H+T definition, the number of households living in affordable communities falls by 239,641 households, the 15<sup>th</sup> largest numerical drop in the nation. Neighborhoods with average H+T costs below 45 percent are concentrated within the City of Cleveland, some of its early suburbs such as Lakewood and East Cleveland, and other older settlements like Lorain and central Medina. Many of communities enjoy robust transit service provided by the Greater Cleveland Regional Transit Authority (GCRTA).



For the typical working household earning 80 percent of AMI (\$33,671), H+T affordability becomes very difficult to achieve. At this income level, the average household in the region spends 60 percent or more of their paycheck on housing and transportation. Although Cleveland's fixed guideway and bus routes provide ample transportation choice, only 54 percent of the city's neighborhoods have H+T costs at or below 45 percent of this income level. Much of the city's West Side exceeds this benchmark, including neighborhoods

adjacent to the GCRTA Red Line. Outside Cuyahoga County, only 15 out of 586 neighborhoods meet this affordability threshold, virtually all of which are located in Lorain County.

At 2000 gas prices, Cleveland households spent \$8.5 billion in aggregate on private transportation each year. But assuming the same travel behavior at 2008 gas prices, transportation expenditures would surge to \$10.2 billion annually. These increases stretch household budgets and leave Clevelanders with little disposable income for investments in better housing, college savings, or retirement.

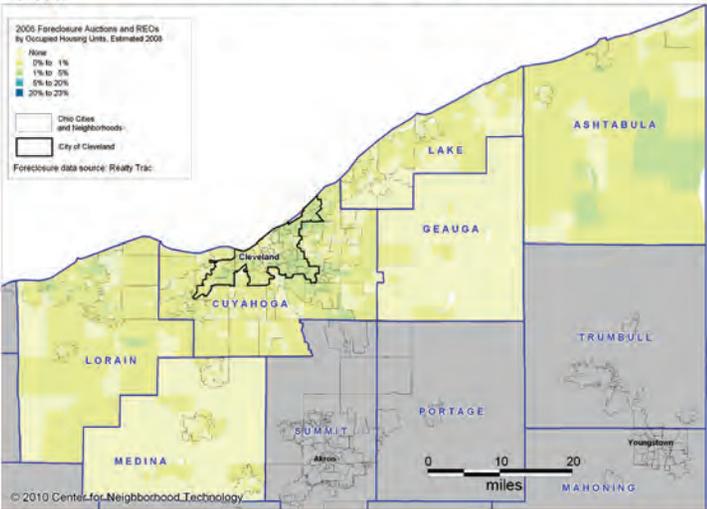
By 2008, rising fuel costs were siphoning \$3.2 billion dollars in consumer spending out of the Cleveland economy for petroleum products from other parts of the world. By comparison, according to the Bureau of Economic Analysis, sales by Cleveland retailers accounted for \$5.4 billion dollars in economic output in 2008 and 107,324 jobs — one out of eight in the regional economy. As households spend less of their disposable income at neighborhood businesses and more of it at the pump, tens of thousands of local jobs are at risk.

### **Gas Costs Exposing Cleveland Homeowners to More Foreclosures**

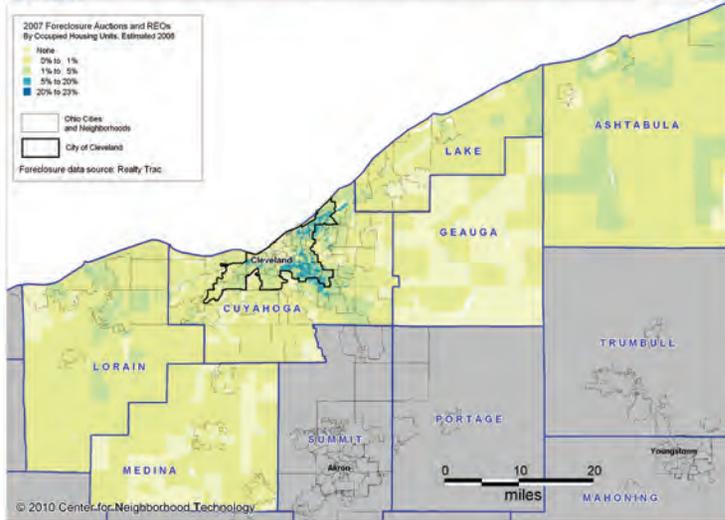
Easy credit spurred a housing construction boom, allowed households to purchase homes beyond their means and obscured the outmigration fueling the demand for housing. However, as the economy weakened and job losses mounted, home foreclosures spilled outward from Cleveland's weakest markets into its automobile-oriented exurbs, all of which struggled to absorb the newly vacant units.

The subprime lending that took hold of Cuyahoga County's low- and moderate-income communities during the late 1990s and early 2000s offered some lower-income borrowers access to credit for the first time. Cheap credit and more liberal down payment guidelines allowed first-time owners to purchase homes that tested their financial wherewithal. But as monthly payments on these adjustable rate loans reset and moved upward, Cleveland's East Side, eastern Cuyahoga County, and the city of Lorain saw many properties enter foreclosure in significant numbers, according to data on foreclosure proceedings and repossessions provided by RealtyTrac.

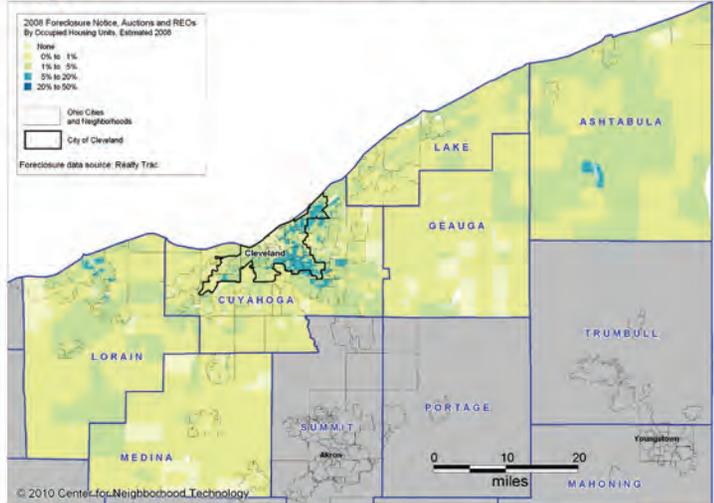
**CNT** 2006 Foreclosure Activity in the Cleveland Metropolitan Area



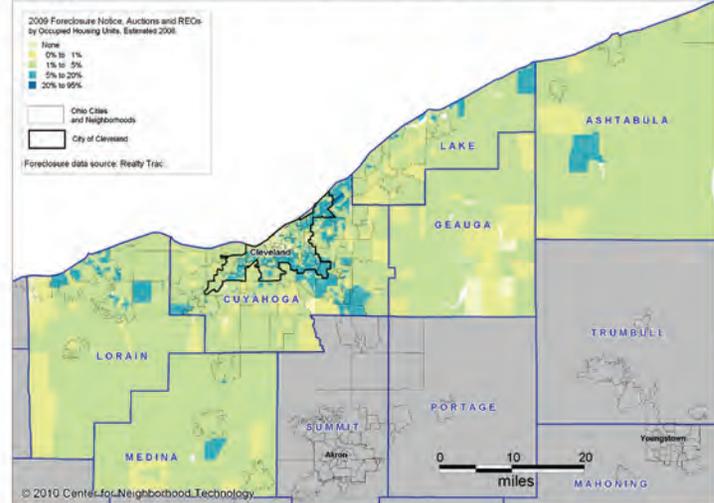
**CNT** 2007 Foreclosure Activity in the Cleveland Metropolitan Area



**CNT** 2008 Foreclosure Activity in the Cleveland Metropolitan Area



**CNT** 2009 Foreclosure Activity in the Cleveland Metropolitan Area

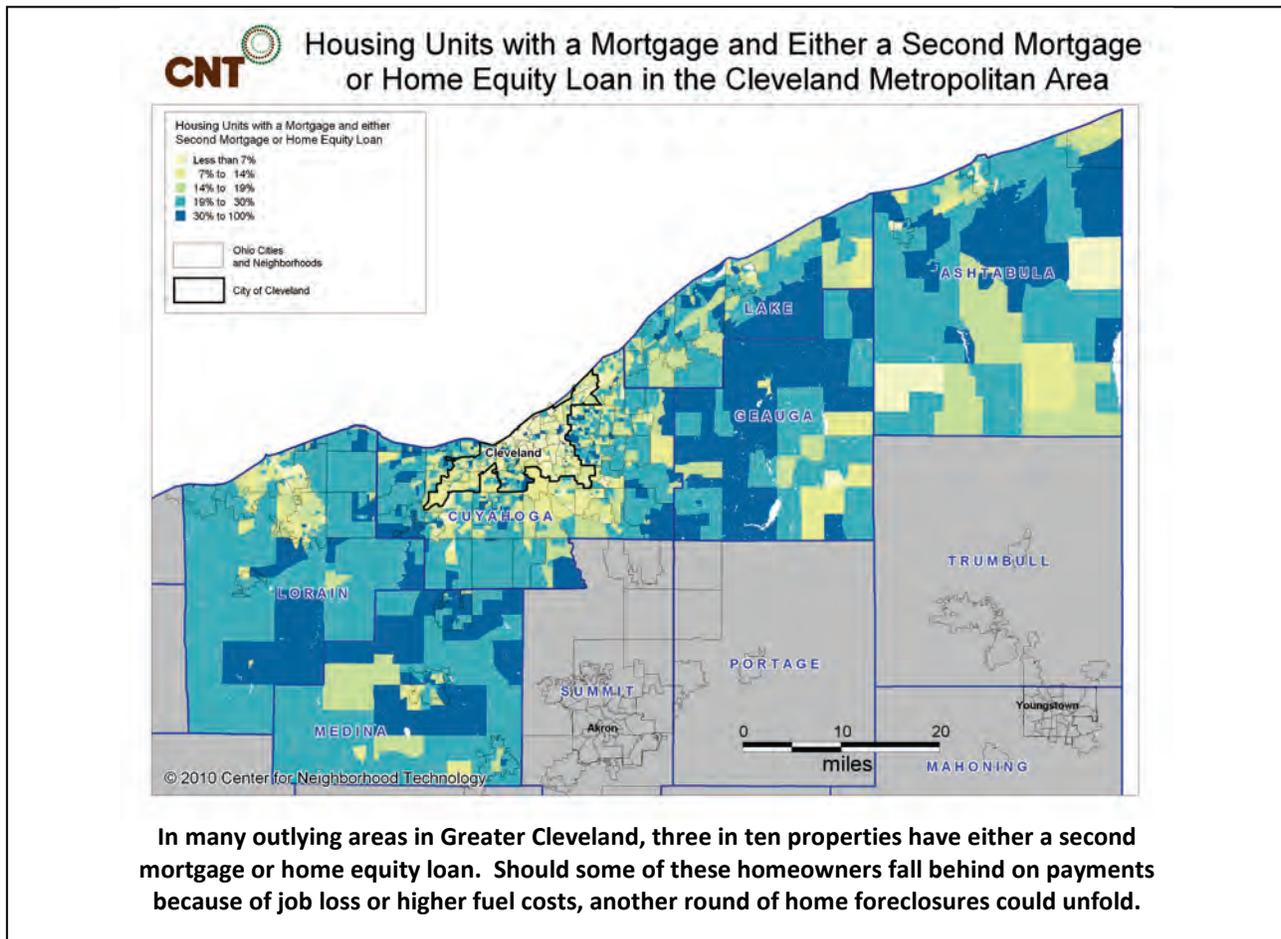


Home foreclosures intensified in low and moderate income neighborhoods in Cuyahoga County, but have spread to automobile-dependent communities that are exposed to increases in gas costs.

As neighbors of these vacant REOs saw their home values fall below the original purchase price, their options for refinancing dwindled and some of them entered foreclosure as well. In just four years, 41,714 properties entered the foreclosure process in Cuyahoga County alone. Three out of four remained in the possession of banks as a real estate owned property (REO).

As gas prices rose above \$4 per gallon in 2008 and the economy worsened, foreclosure proceedings in surrounding communities with high transportation costs began to grow. In Geauga County, for example, the number of foreclosed homes quintupled between 2007 and 2008 and then increased another threefold between 2008 and 2009. Although the inventory of foreclosed homes in surrounding counties was smaller than in Cuyahoga County in sheer numbers, these suburban neighborhoods struggled mightily to find new owners for these properties.

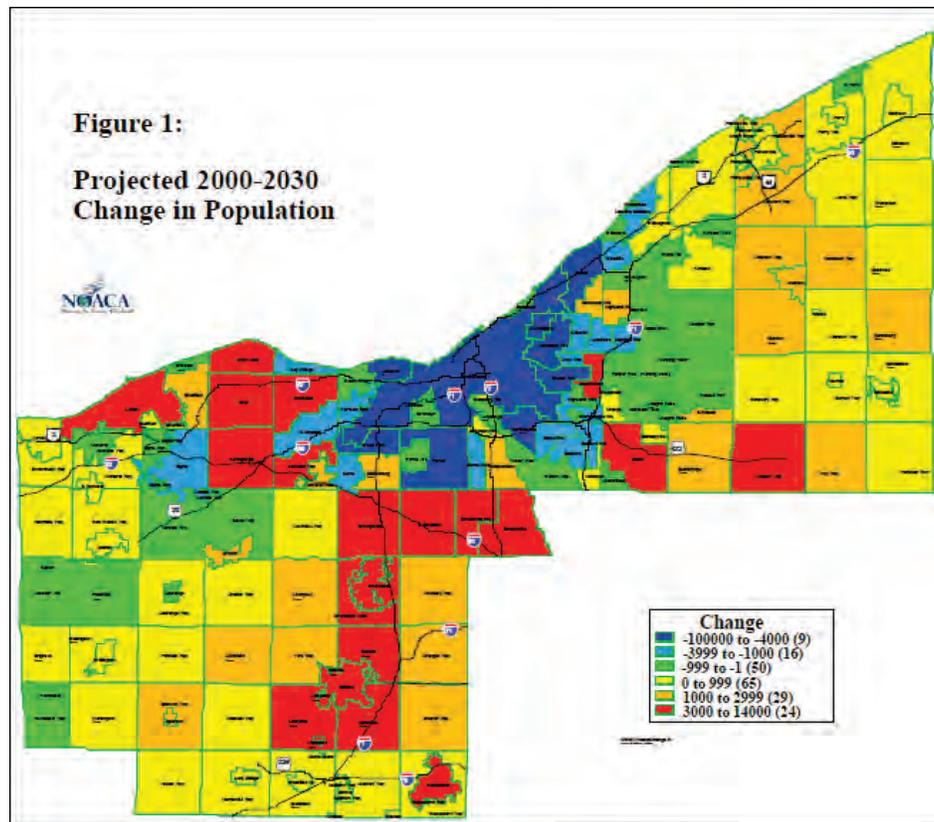
Many homes in these communities are overleveraged. As many as one in five occupied housing units in the region's newer neighborhoods holds a second mortgage or home equity loan. This circumstance needs only a trigger like another spike in gas costs or wave of layoffs to cause a new cycle of home foreclosures and declining property values.



## 2030 Forecasts Project Business as Usual

“Sprawl without growth” has left Greater Cleveland with a legacy of vacant units, mounting transportation costs, government debt, and tens of thousands of excess properties. Perversely, these development trends hurt municipal revenues and cripple local capacity to regulate land use development and transportation

investments. Nevertheless, the Ohio Department of Development and NOACA project these trends to continue through 2030. ODOD's Office of Policy Research and Strategic Planning expects population flight to continue from the core to the periphery, with little growth at the regional level. NOACA projects a decline of 13,164 people and 5,642 households over the same period, with continued population and household growth in outlying communities and unincorporated areas.



**NOACA's 2030 Connections plan projects that outmigration trends of the past five decades will continue, giving the region little relief from ever-growing transportation costs and instability in the housing market.**

Given that recent development patterns have put the entire region at risk, NOACA's 2030 population projections raise four key questions:

- How much more housing can the market absorb with 100,000 vacant units and tens of thousands of REOs already on the market?
- Dispersal will continue to drive households, jobs, retail, and schools further apart and boost dependence on the car. Gasoline price spikes single handedly wiped out a decade's worth of income increases. Can household budgets weather the gas price increases that will accompany the dwindling supply of oil?
- Facilitating population movement requires additional infrastructure and government services at a time when public costs and debt service increases outrun revenues. Can municipalities collectively afford new investments out of a declining tax base, and will the region suffer from duplicative services and infrastructure?
- Will developers consider an alternative set of real estate products given such a gloomy growth scenario?

Outmigration is not inevitable. It is a historical trend, not a destiny. An inventive and adaptive smart growth scenario can avoid these outcomes and create a new paradigm of growth in the 21<sup>st</sup> Century.

## **A Changing Housing Market**

Greater Cleveland has paid the price for its development patterns, but it also has the opportunity to change course. Nationally, real estate investors and homeowners have been moving away from single family homes. Locally, demand will emerge for a more diverse mix of real estate products.

### **National Investors Prefer Urban Development**

The national real estate crisis has caused more investors and property developers to focus on compact developments and urban neighborhoods. As the national credit bubble burst in 2007 and 2008, single-family home development crashed nationally, just like it did in Cleveland. According to the Joint Center for Housing Studies at Harvard University, sales of new single-family homes dropped by three fifths between 2005 and 2008, while the number of new single-family developments fell by slightly more. By contrast, multifamily starts fell far less over these years.

In late 2009, the Urban Land Institute and PriceWaterhouseCoopers released *Emerging Trends In Real Estate 2010*, a survey of developers and investors who believed that as long as the single-family market remains soft, households will increasingly turn to rental housing. Investors see multifamily properties strongly positioned in the economic turnaround. Of these, apartment buildings within walking distance of transit are considered to offer the best return.

National investors see these urban infill and transit-supportive developments as strong bets to hold and increase their value. Infill housing is projected to have the best development prospects for for-sale housing in 2010, appealing both to young people striking out on their own and to their retiring parents hoping to downsize from their family home. Investors also see older suburbs linked to downtowns through mass transportation as appealing opportunities. Regions that create the environments for these products will be best positioned to attract national capital. The 2011 edition of this report reinforced these findings.

Product	Recent Trends (2005-2008)	Investor Outlook
Single Family Homes	<ul style="list-style-type: none"> <li>• New sales down 62.2%</li> <li>• New starts down 63.7%</li> </ul>	<ul style="list-style-type: none"> <li>• New developments struggling with foreclosures “may have no staying power”</li> <li>• Prolonged 20 year “sell off” as boomers age &amp; relocate</li> </ul>
Multifamily	<ul style="list-style-type: none"> <li>• New starts down 19.6%</li> <li>• Positioned for “strong rebound” during recovery</li> </ul>	<ul style="list-style-type: none"> <li>• Rental near transit is “almost can’t miss”</li> <li>• “Locations near transit corridors are prime”</li> </ul>
Condo & Townhomes	<ul style="list-style-type: none"> <li>• Sales down 37.2%</li> <li>• Owner vacancy rates “rising dramatically” in small buildings</li> </ul>	<ul style="list-style-type: none"> <li>• Demand from aging boomers will pick up as recession eases</li> <li>• However, “overbuilt” markets will remain weak for foreseeable future</li> </ul>

**The Great Recession is changing everything. National real estate professionals think that compact housing and mixed-use neighborhoods will drive real estate investment once the economy improves.**

## Demographics Spur Demand for Mixed-Use Rental Housing

The transformation of the housing market will be driven by the preferences of the aging Baby Boomer generation and the Echo Boomers who are replacing them as workers and homeowners. Many Boomers have delayed their retirement due to the bad economy, but when they leave the workforce, they will transform the housing market. Surveys suggest that aging households will want to relocate to walkable communities, with easy access to retail, services, mass transportation, and families. As Boomers retire over the next two decades, analysts expect to see more sellers looking for small homes than buyers looking for large ones. However, good health, diminished home values, and lost retirement savings have all slowed these trends for the moment.

Meanwhile, younger households show little desire to purchase their parents homes. With low paychecks and few entry level jobs, this generation is renting longer and delaying home ownership. Because younger households are expected to marry later and have fewer children, many will eventually look to buy a different kind of home than their parents did. National surveys sponsored by ULI suggest that Echo Boomers strongly favor urban, higher density neighborhoods to lower density ones. This highly mobile generation will shop between cities and regions that offer diverse, distinctive, and active neighborhoods before choosing where to work. Communities that offer these amenities will position themselves to attract and retain this new generation of workers.

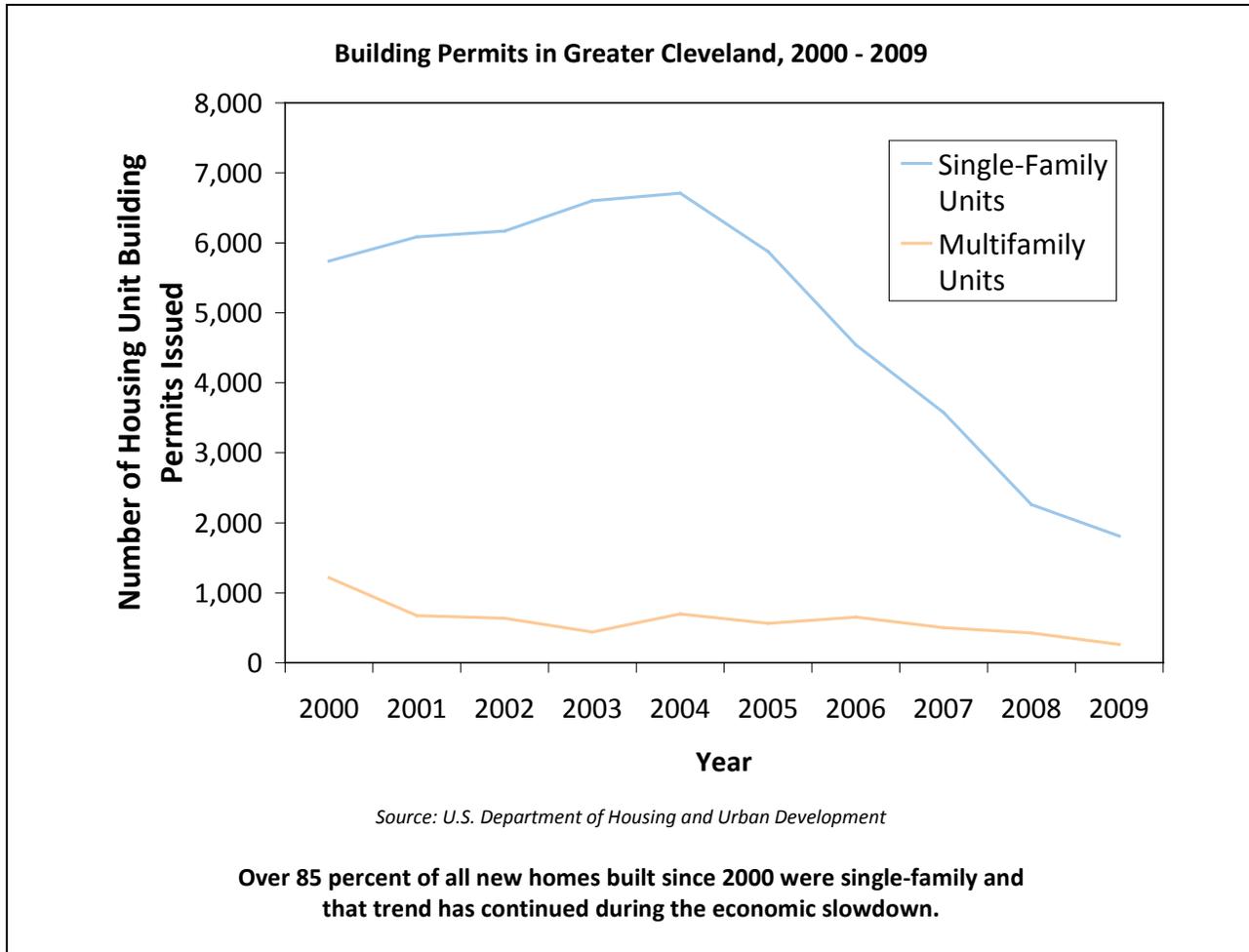
Segment	Outlook
Shrinking Household Size	<ul style="list-style-type: none"> <li>● Childless and single person households fastest growing</li> <li>● 88% of household growth 2005-2030 will be childless</li> </ul>
Baby Boomers (1946 - 1964)	<ul style="list-style-type: none"> <li>● Seniors to working age ratio means more sellers than buyers</li> <li>● 71% of working older households want to live by transit</li> <li>● 75% of retiring boomers want to live in mixed-use areas</li> <li>● Negative home equity and good health may slow trend</li> </ul>
Echo Boomers (1982 - 1999)	<ul style="list-style-type: none"> <li>● 77% want to live in urban core</li> <li>● 1/3 will pay more to walk to shops, work, &amp; entertainment</li> <li>● 50%+ will trade lot size for proximity to shop/work</li> <li>● Income constraints will drive demand for rental</li> <li>● Regions must invest in place to retain them</li> </ul>
Immigrants	<ul style="list-style-type: none"> <li>● Preference for closely connected suburbs, not "cul de sacs"</li> </ul>

**Changes in the nation's demographics will shift demand for housing away from single-family homes and towards compact, mixed-use communities in urban settings.**



## Cleveland Market for Mixed-Use is Untapped

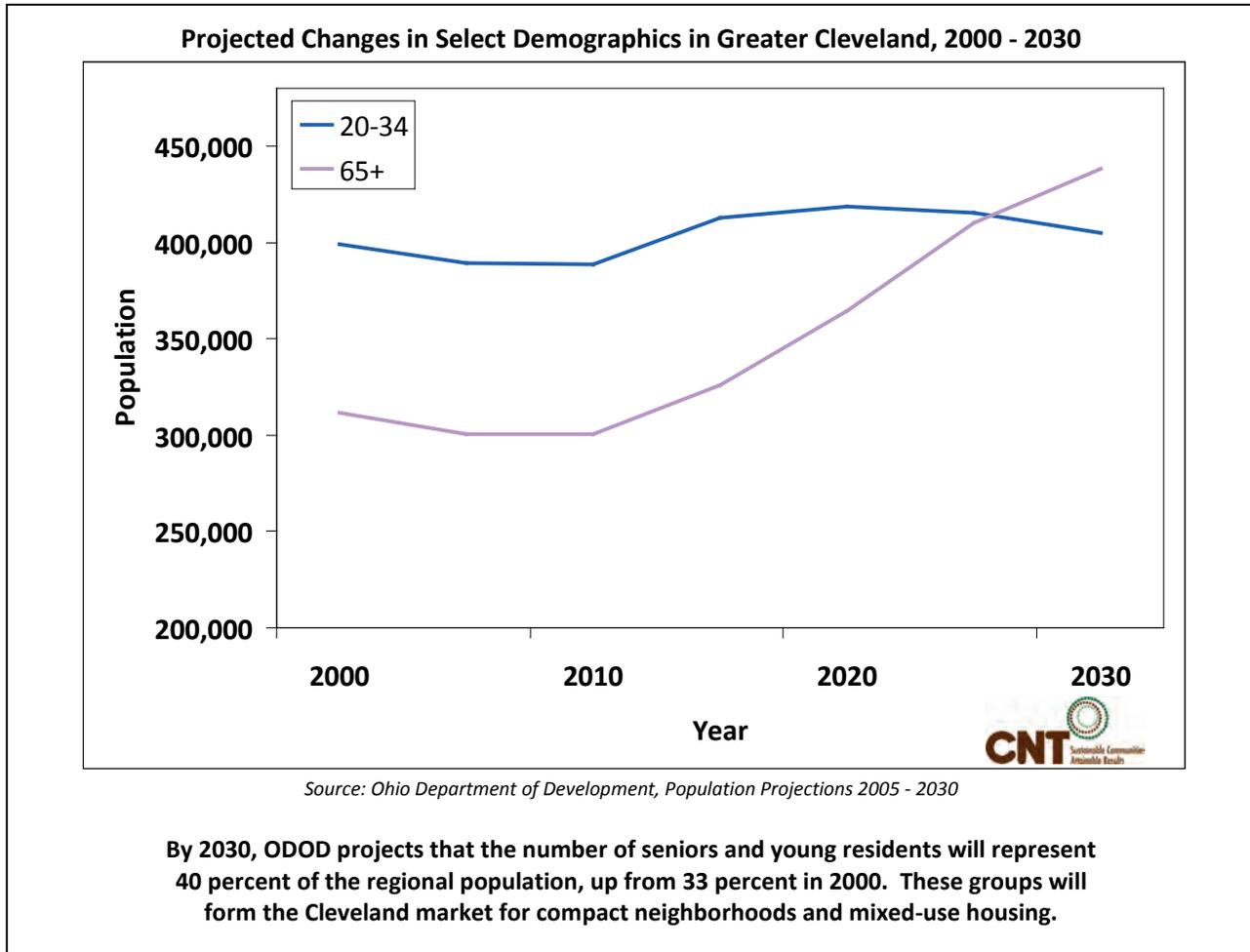
Cleveland developers have not capitalized on these shifts. Over the last decade, almost nine out of ten new building permits in Greater Cleveland were for single family homes. As the economy stalled in 2008 and 2009, the region still added single-family units at a 6-to-1 ratio over multi-family housing. Zoning restrictions in smaller municipalities and townships severely limit the opportunities for multifamily properties, as 2,220 out of 4,800 square miles are in jurisdictions banning them outright. As a result, the number of new multifamily units in surrounding counties in the past decade ranged from a high of 1,522 new units in Lorain County to just 8 in Geauga County.



Although the market for new condominiums looks weak, multifamily rental appears stronger. Urban developers focused heavily on condominiums in the 1990s, but that market collapsed due to declining demand and an abundance of poorly sited properties. This has created a longstanding sense of risk among national investors, so capital for condo projects is hard to secure. However, the market for multifamily rental, especially smaller scale apartment buildings and townhomes, appears more viable as the rate of lending increases for these projects nationwide. For example, the waiting list for Downtown apartments at 668 Euclid Avenue had more than 150 names on it.

Even though Greater Cleveland will experience low or negative population growth, demographic shifts will drive demand for these kinds of developments. According to ODOD projections, 126,500 Clevelanders will

enter retirement age between 2000 and 2030, increasing the total to 438,070. By 2030, one in five Clevelanders will be 65 or older. Although ODOD does not project significant gains in residents between 20 and 34 between 2005 and 2030, they will hold steady as other age groups decline. If consumer preferences hold, the balance of regional housing demand will tilt towards denser, mixed-use districts.



Changing demographics, investor preferences, and an underbuilt multifamily market will provide Greater Cleveland the opportunity to diversify its housing stock, both in the urban core and in surrounding communities. The Center for Transit-Oriented Development projects that 28,568 additional households could be captured within a half mile of GCRTA fixed-guideway stations by 2030 on top of the 60,954 households already living within walking distance of transit. Outside Cuyahoga County, additional investment in denser, mixed-use developments would allow predominantly single-family communities to weather coming shifts in demand. A diverse building stock can protect municipal budgets from unexpected declines in value of any single housing type.

# Resilience and Growth in a Weak Economy

The sustained decline of American automobile manufacturing has rippled through Northeast Ohio’s network of auto parts suppliers and the many local businesses that serve them. But even as Northeast Ohio suffers through the worst recession in a generation, its industrial diversity, transportation infrastructure, and skilled workforce can help it transition through the recovery.

## Opportunities for Growth Amid Systemic Weakness

According to Moody’s Economy.com, declines in automobile production sent layoffs cascading through almost every sector of the regional economy. Between manufacturing job loss, accumulating debt, and aging, Clevelanders are spending less, thereby intensifying the downturn. Regional fragmentation exacerbates this situation. Northeast Ohio’s network of small towns and municipalities compete with one another for the latest big box store or power center, because those developments greatly boost local income tax revenue. This dynamic shifts retail activity and lower paying jobs from one town to another but does little to grow the economy. With retail demand declining, vacant commercial malls and power centers may not be far behind.

Strengths	Opportunities
<ul style="list-style-type: none"> <li>• Health care infrastructure</li> <li>• Increasing industrial diversity</li> <li>• High tech industries (composite metals, solar panels)</li> <li>• Affordable office rents</li> </ul>	<ul style="list-style-type: none"> <li>• Attracting critical investment in biotech</li> <li>• Renewable energy component manufacturing</li> <li>• Infrastructure connections to global markets</li> </ul>
Weaknesses	Threats
<ul style="list-style-type: none"> <li>• Declining auto manufacturing and steel</li> <li>• Reduced consumer spending due to aging and job loss</li> <li>• Household credit extremely stressed</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of regional coordination on economic development</li> <li>• Auto industry restructuring on parts manufacturers</li> <li>• Lack of projected population growth will hurt service sector</li> </ul>

**The decline of the automotive industry significantly destabilized Greater Cleveland’s economy, but the region’s businesses and infrastructure are enviable assets for new growth.**

Despite this gloomy narrative, the economy enjoys significant strengths. Cleveland’s health care infrastructure has created a critical mass of talented specialists, especially at the Cleveland Clinic. Investment in biomedical clusters has increased 34 percent since 2003. Greater Cleveland is now home to over 600 biomedical businesses. The region’s industrial diversity is increasing elsewhere, too, with recent inroads into high-tech sectors like polymers and composite metals. The infrastructure of the Great Lakes region could give these exports in growth sectors a competitive edge in reaching domestic and global markets. Additionally, Downtown Cleveland’s high vacancy rate means low rents on high quality office space. Against a national storyline of “Rust Belt” decline, investors and stakeholders see strengths for the future.

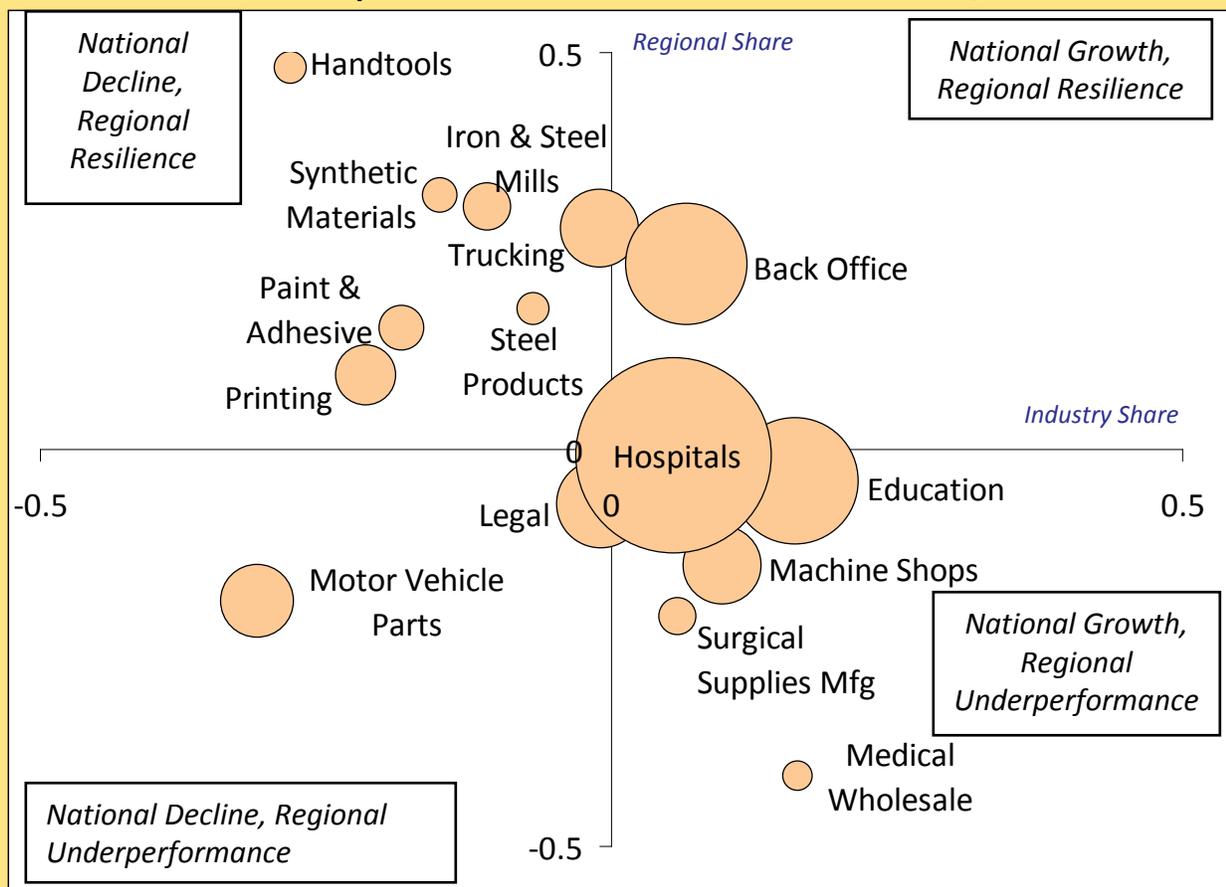
## Some Cleveland Industries Show Resilience and Growth

Greater Cleveland lost 17,655 jobs between 2002 and 2008, but this overshadows a story of economic resiliency for some sectors of the economy. CNT examined employment data from the Bureau of Labor Statistics to assess how different sectors of Greater Cleveland’s economy fared when compared to the

nation and identify which ones performed better or worse than might have been expected. Sometimes, for example, employment growth in an industry occurs because the entire economy is expanding. Other times, jobs are gained and lost because that industry is growing or shrinking, like when steel production shrank nationwide in the 1980s. By adjusting employment changes for these kinds of national trends, a picture of local competitive advantage emerges.

Cleveland is not a story of inexorable “Rust Belt” decline, but one of incredible local resilience. Auto manufacturing did shed 6,685 jobs in just 6 years—a steeper drop than in the nation as a whole. Yet the region’s various metalworking and materials industries, which include steel mills, hand tools, specialized metal products, and synthetic materials, fared much better. These industries grew from a combined 7,465 jobs in 2002 to 9,162 jobs in 2008, more than double the national rate. This network of firms deserves

**Shift Share Analysis of Recent Job Growth in Greater Cleveland, 2002 - 2008**



Source: Bureau of Labor Statistics, Current Employment Statistics, 2002 - 2008

CNT examined the components of job change between 2002 and 2008 for fifteen industry sectors in which the Cleveland region is more specialized than the nation as a whole. Jobs in these sectors grow or shrink for one of three reasons: general economic conditions, national trends in the industry, and local competitive advantage or disadvantage. CNT mapped the last two factors against each other. The size of each circle represents the total number of local jobs in that sector.

Each of the four quadrants tells a different story. Sectors located in the upper right quadrant performed well nationally and locally. The resilient industries in the upper left quadrant declined nationally, but either grew or shrank less in Cleveland and may be worthy of additional attention and investment. The lower right quadrant displays national growth industries that underperformed in Cleveland. Finally, sectors in the lower left quadrant declined more in Cleveland than in the nation as a whole.

public attention as Ohio's economy shifts away from auto manufacturing and towards emerging industries like renewable energy or rail car manufacturing. Greater Cleveland is not known for logistics, but the region's recent outperformance in the trucking industry suggests some locational advantage in moving freight that could translate into greater growth in warehousing and distribution.

Professional and medical employment also outperformed the nation. Back office companies, which handle outsourced managerial and administrative functions from other firms, gained 5,900 jobs over this period and grew more quickly than the nation as a whole. With its ample and affordable office space, Downtown Cleveland could become the market where Ohio companies outsource these kinds of functions. Perhaps unsurprisingly, hospitals and medical institutions have added 5,109 new jobs since 2002. This is about the same rate of growth as the rest of the country. Biomedical industries, for which data is available, including medical wholesaling and surgical appliance manufacturing, underperformed those industries nationally. Nonetheless, the size and scale of employment at the Cleveland Clinic and other hospitals make them an undeniable asset for job creation and innovation.

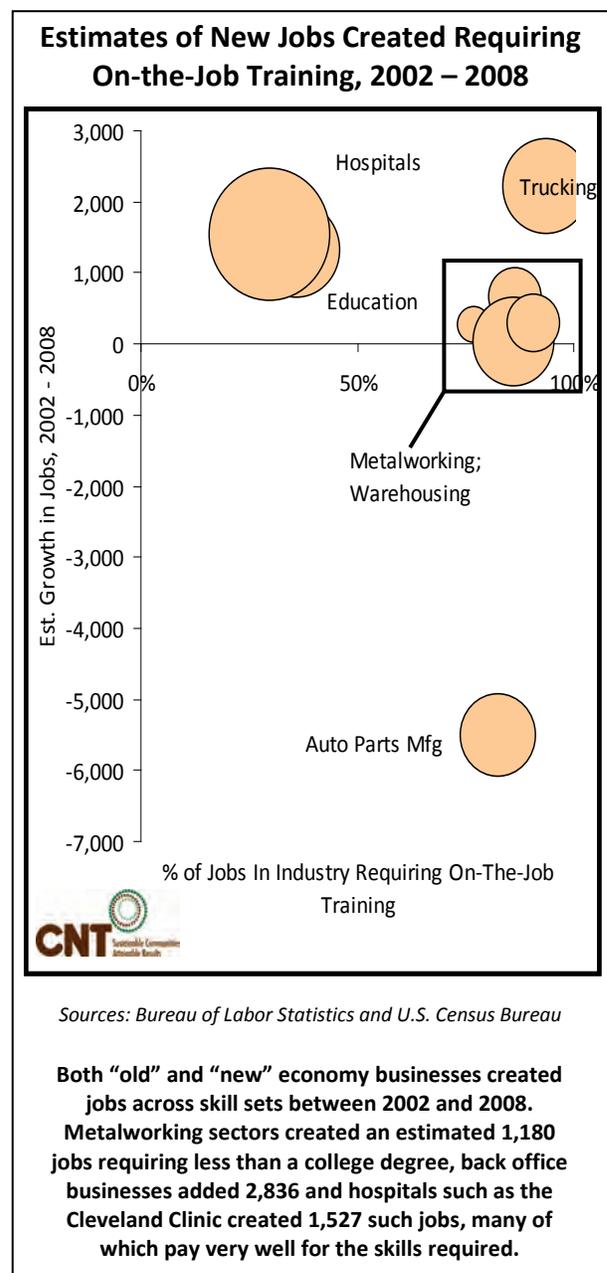
### “Old” and “New” Industries Provide Balanced Economic Growth

Manufacturing firms, offices, and hospitals not only create jobs, they do so across skill levels. Growth in these sectors can mean new jobs for all kinds of residents, from highly educated professionals to those workers without a college degree. Specialized medical procedures require technicians to operate machinery, run computer programs, and handle products like X-rays and blood. Call centers can provide good pay and consistent hours to workers of many different backgrounds who complete basic training. A successful economic development strategy prepares a variety of workers for these kinds of jobs.

Assuming that the skill level of jobs locally matches the national experience as reported by the U.S. Census Bureau, Greater Cleveland's strongest industries all created substantial numbers of jobs for workers without a college degree between 2002 and 2008. These numbers demonstrate that investment in both the manufacturing businesses of the “old” economy and the medical and service businesses of the “new” economy can build wealth and income for Clevelanders across all skill and education levels.

### Job Density Can Lead to Innovation

Economic development occurs in the offices, shops, and factories that comprise Ohio's neighborhoods and cities. With many specialized professions in close proximity, urban space encourages information



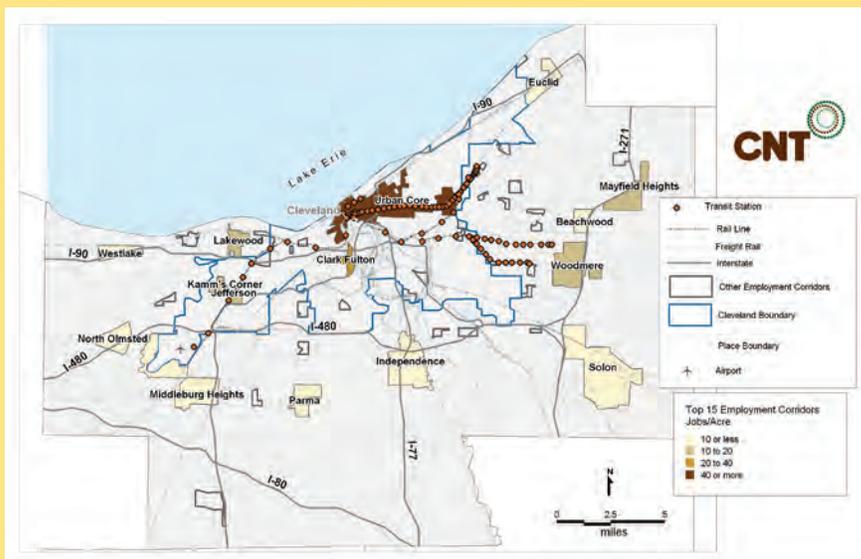
exchanges and acts as a nursery for new ideas. This accelerated rate of information exchange brings increases in human capital, technology transfers, and innovation. New ideas mean new products, potential start-ups, and economic growth. Moreover, informal networking and idea swapping can have a powerful effect on economic development: Silicon Valley’s engineers and entrepreneurs built the American semiconductor industry after hours in the bars and coffee shops of Mountain View, CA. A study by the Federal Reserve Bank of Philadelphia found that as employment density doubles, its patent intensity increases by 20 percent. The vast majority of this innovation occurs in dense urban environments.

Just as in the Bay Area, Greater Cleveland’s densest job corridors could drive economic growth. Ohio Hub and Third Frontier programs recognize the importance of innovation, human capital, and new start-ups in repowering the state economy. However, potential entrepreneurs also need interconnected urban environments to meet one another and swap ideas before new opportunities materialize. Focusing job growth in dense, transit served communities can foster economic development by providing the spaces and venues where collaboration and innovation can happen.

### Economic Activity Is Clustered Around Job Corridors

In Greater Cleveland, the urban core could be one such place. In just 5.5 square miles, the combined corridor of Downtown, University Circle, and Ohio City accounts for one out of six jobs in the region—168,730 in all—more than anywhere else in Ohio. With 31,146 jobs per square mile, the urban core also leads the region in employment intensity with job densities that are three and a half times greater than the next densest districts in Elyria and Lakewood and six and a half times denser than Solon, the second largest regional center.

The urban core also has room to grow. Euclid Avenue serves as the spine between the two centers of Downtown and University Circle. In 2008 the Greater Cleveland Regional Transportation Authority inaugurated the HealthLine, a Bus Rapid Transit service with bus-only lanes and stops similar to train stations, to connect these centers through the Midtown neighborhood. The HealthLine ties these three neighborhoods together, pools their human capital, and enhances their economic strength.



**CNT identified regional employment centers using Local Employment Dynamics (LED) data from 2002 and 2008. CNT scanned Ohio for adjacent U.S. Census Block Groups with employment density above seven jobs per acre and assembled them into 209 clusters representing almost 1.5 million jobs statewide. These rich employment networks are best understood as “jobs corridors” that tie together multiple nodes of activity, like Downtown, University Circle and Ohio City.**

**Even though Cleveland’s Downtown-University Circle-Ohio City corridor experienced net job losses of 3.4 percent between 2002 and 2008, its 168,700 jobs and density of 31,150 jobs per square mile are unparalleled in the state of Ohio.**

Source: U.S. Census, Local Employment Dynamics

Other employment centers are just as significant. The next fourteen largest job centers in Greater Cleveland possessed 162,168 jobs in 2008, just about as many as Downtown and University Circle. These centers are more decentralized and generally require a car for daily commutes. Some, including Solon and Independence, are nowhere near the GCRTA's fixed guideway network, while others, such as Lakewood, Middleburg Heights, Woodmere, and Mayfield Heights, sit just beyond the system's reach.

Job Center Name	Jobs in 2008	Jobs Per Square Mile, 2008	Change, 2002 - 2008
Downtown-University Circle-Ohio City	168,730	31,146	-3.4%
Solon	32,284	4,771	33.7%
Beachwood	20,025	6,802	18.7%
Middleburg Heights	18,551	4,889	7.8%
Independence	17,772	5,264	7.4%
Mayfield Heights	11,806	6,612	5.5%
Elyria	11,096	8,224	-2.4%
Clark/Fulton	7,935	18,507	-3.1%
Parma	7,681	6,275	1.5%
North Olmsted	7,334	5,317	1.5%
Euclid	6,816	5,087	-1.8%
Lakewood	6,360	8,799	6.0%
Medina	5,055	8,259	-4.6%
Strongsville	4,770	4,721	-0.5%
Westlake	4,713	4,598	8.3%

**One out of three regional jobs is located in just fifteen employment centers.**

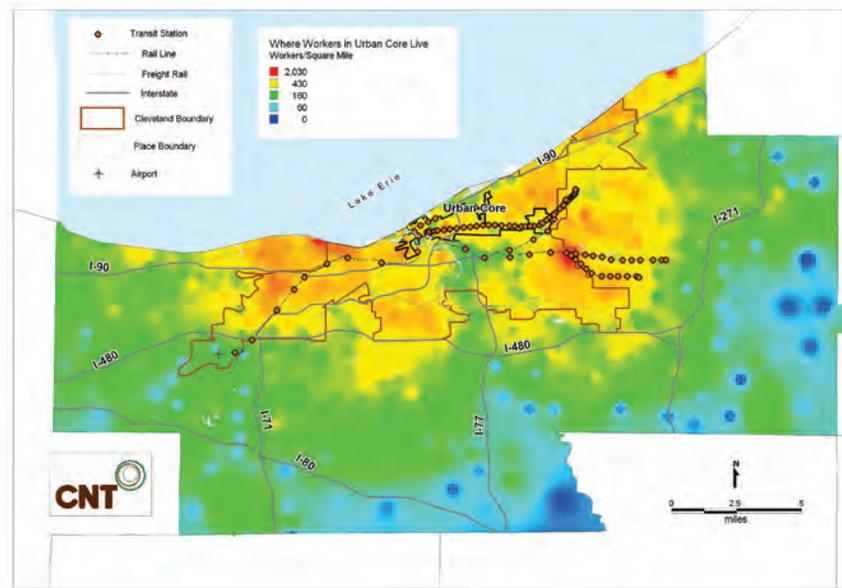
*Source: U.S. Census, Local Employment Dynamics*

Each one of these centers adds value to the regional economy in its own way. The Cleveland Clinic, two major universities, many of the region's law firms, and numerous other business offices contribute to the urban core's competitive edge in those areas. Solon and Euclid account for many of the region's manufacturing and warehousing jobs. Professional services firms, including back office and management companies, cluster along the Outerbelt.

### **Job Corridors Create and Circulate Regional Wealth**

Every working day, Clevelanders go to work in these centers, then return home to spend their earnings on housing, retail, clothing, and taxes. Their commutes spread wealth all over Northeast Ohio and tie the vitality of their neighborhoods to the success of their workplaces. In the urban core of Cleveland, for example, 72 percent of the workforce commutes to their jobs from Lakewood, Parma, Cleveland Heights, Euclid, Shaker Heights, and elsewhere. Every salary earned at a job in University Circle supports a local business in Parma or Euclid, which in turn boosts local taxes.

## Commute Shed for Cleveland's Urban Core



**Almost three-quarters (72.0 percent) of employees in the Downtown-University Circle-Ohio City corridors live outside the city of Cleveland. Another three out of ten (29 percent) live outside Cuyahoga County altogether.**

*Source: U.S. Census, Local Employment Dynamics*

The same holds true for the other job centers. Ohioans travel from as far as Akron and Youngstown to manufacturing and logistics jobs in Solon. Other centers, including Lakewood and Parma, tend to primarily employ nearby residents. Each one creates income for Clevelanders to spend at local businesses.

However, jobs and residents in Greater Cleveland are moving further apart. As Clevelanders burn more fuel to commute, their earnings disappear as quickly as the gas. Just 5 percent of employees who work in the urban core live within this district's boundaries, which encompass several city neighborhoods. Downtown and University Circle are compact, accessible, and transit-friendly. If households lived closer to their city jobs and if employers hired more local residents, the region would save hundreds of millions in transportation dollars each year.

Ultimately, an investment in the economy is an investment in place. Many of the region's strongest sectors, from metalworking and composite materials to back office functions and hospitals, cluster around each other for one reason or another. Whether it's in Downtown Cleveland, Lakewood, Solon, or Elyria, economic growth for those industries will require infrastructure for commuters, clients, shippers, and suppliers. Reinvestment in transportation will make these places more viable, keep firms competitive in the global economy and enhance the region's strengths during a time of great duress.

# **Freight Assets Could Support Cargo-Oriented Development**

## **The Great Lakes: Underutilized Asset, Emerging Opportunity**

Gas prices will change the dynamics of the freight industry. Right now, trucks deliver most goods. But companies in the 21<sup>st</sup> century expect timely delivery and competitive prices. With more trucks clogging the Interstate Highway System and fuel costs skyrocketing, businesses will be looking at other modes for moving freight. One of those alternatives is the nation’s rail system, which is 2.6 times more fuel efficient than trucking. Berkshire Hathaway’s recent \$34 billion purchase of Burlington Northern Santa Fe is evidence that investors see value in energy-efficient infrastructure.

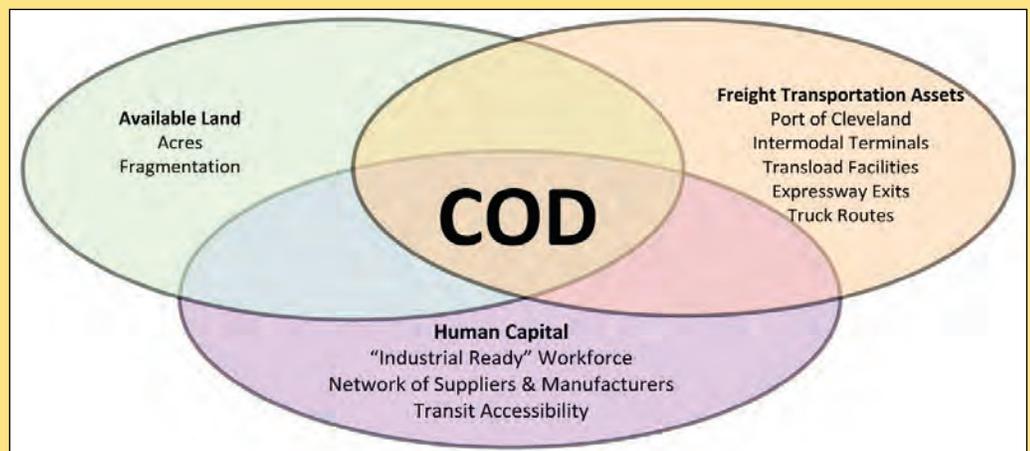
The Great Lakes waterways haven’t received the same attention, but inland shipping could yield similar savings. A single barge of containers carries the cargo of 500 trucks and uses about a quarter of the fuel to do it. The Great Lakes are also congestion free. While trains crawl through Chicago and trucks clog the Detroit-Windsor Ambassador Bridge, the St. Lawrence Seaway operates at half capacity. One study by the U.S. Maritime Administration found that a container of goods between Madison, WI and Detroit, MI with a leg across Lake Michigan could save \$200 in costs and arrive two hours earlier. Some shippers think that the Great Lakes will be especially competitive in semiunfinished goods, where a product is moved from one business to another for an additional step in the manufacturing process.

These advantages are expected to spur a 243 percent increase in the value of inland freight moved by water between 2008 and 2035, according to projections by the Federal Highway Administration. Without additional investment, though, water freight will likely continue to be a niche market and haul only a fraction of the nation’s goods by value. New infrastructure could change that. As one example, the construction of the St. Lawrence Seaway shifted North America’s iron and coal shipments away from congested rail lines and spurred economic growth in the postwar years. Energy costs and highway congestion could provide a similar impetus in the 21<sup>st</sup> century. Local investment in ports can lead the way.

## **Scanning for Cargo-Oriented Development**

*CNT’s Optimizer tool ranked 147 underutilized and vacant industrial sites in Cuyahoga County to determine the most desirable sites for COD. The tool used a statistical method to find sites that shine across ten variables in three categories:*

- *Freight Assets, especially energy efficient water and intermodal rail facilities and the truck connections to other markets*
- *Available Land, often strategically located but contaminated and fragmented among several owners*
- *Human Capital in the form of a skilled labor force made accessible through mass transit and a readymade supply chain of small manufacturers.*



## Case Study: Toledo/Lucas County Port Authority

*Investment around the Port of Toledo has paid dividends in increased freight traffic – and new jobs.*

*Toledo was not historically known for its intermodal commerce, but the Port has made major improvements recently:*

- *Acquired 2,000 acres of land around the seaport for logistics developers*
- *Supported development of 675,000 sq. ft. of covered storage with access to indoor rail docks and three Class I railroads*
- *Invested \$21 million in modernization and the acquisition of a mobile harbor crane for short sea shipping*

*Investment has paid off in global trade:*

- *Between 2002 and 2007, freight activity increased 11 percent, largely driven by Canadian imports*
- *Kraft Foods established its first marine terminal in 50 years that will handle 12 million pounds of Canadian freight*
- *Indirect economic impact estimated at \$1 billion of economic activity and 19,540 jobs*

*By contrast, freight activity in Cleveland has decreased by 16 percent, with only a little import traffic, and supports approximately 10,000 jobs.*

## Cleveland's Water Freight Advantage

Cleveland sits on the shores of Lake Erie along several strategic trade routes. I-80, I-90, and I-71 all make it possible for trucks to reach the Midwest, Canada, the Northeast, and much of the South in a day's drive. Two Class I railroad carriers, Norfolk Southern and CSX, connect the region to Chicago and New York along the busiest rail route in the eastern United States. Cleveland also serves as a midpoint on the Great Lakes system. The Port of Cleveland is the fourth busiest U.S. port by tonnage and the only one that handles bulk materials from as far west as Duluth and as far east as Halifax.



Cleveland could take advantage of its position in the middle of all this trade. In the shorter term, the region's primary metal manufacturers could produce and assemble bulky oversized components like wind turbines and the Port of Cleveland could deliver them to the Dakotas through Duluth. In the long term, a market will likely emerge for container shipping through Cleveland, even though neither the Port of Cleveland nor other inland harbors are equipped for it. New technologies in short sea shipping between Europe and the Great Lakes, a proposed container feeder service between Halifax and Cleveland, and the widening of the Panama and Suez Canals are all projected to reduce shipping times to and from Cleveland. An investment in crane technology now could lead to more traffic as fuel prices go up and travel times go down.

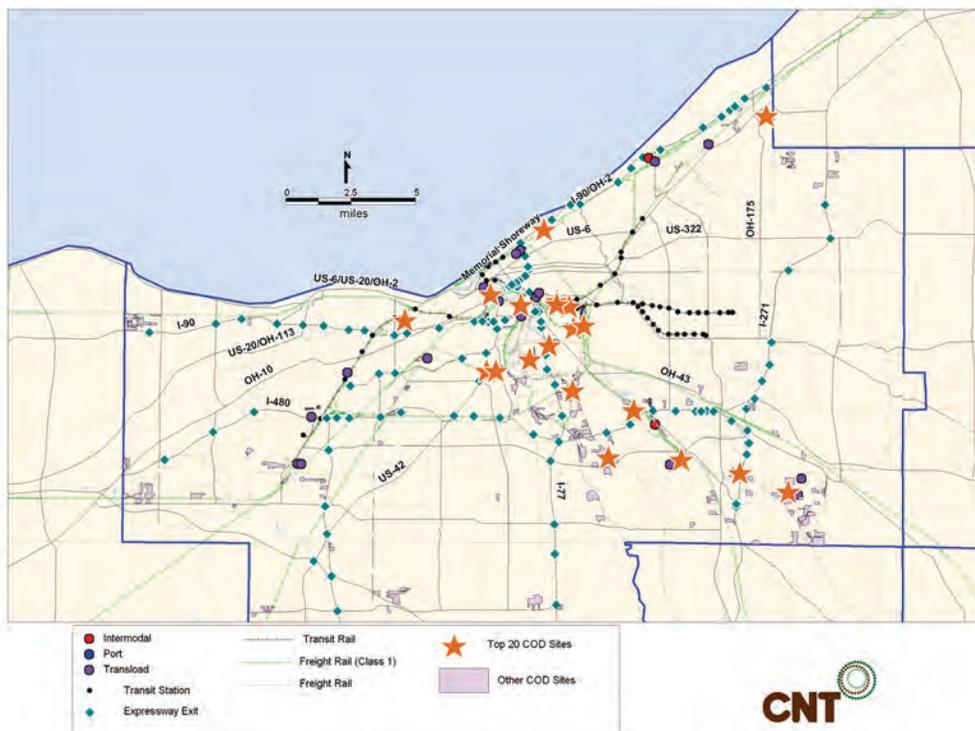
## Cargo-Oriented Development Builds on Existing Assets

Because Cleveland sits at the meeting point of rail, water, and highway infrastructure, the region could benefit from an economic development strategy founded upon cargo-oriented development (COD). CODs bring industrial and logistics businesses together with access to multiple modes of freight transportation, complementary firms, and a ready workforce. By operating in a COD, a company could cut millions of

unnecessary truck miles from freight routes and realize fuel savings that reduce the cost of goods, while creating jobs in places that workers can easily access.

Railroads, waterways, and expressways converge in central and southeastern Cuyahoga County and make it an attractive area for COD. The Port of Cleveland sits at the northwestern end of this network. At the southeastern end, Norfolk Southern operates a rail-to-truck terminal in Maple Heights that could see more traffic after a recently completed tunneling project across the Appalachian Mountains. While only a few acres of land are available for industrial development right around either of these freight terminals, many more exist between the two along I-77 and the Cuyahoga River.

### Freight Assets and Top COD Opportunities in Cuyahoga County



**Cuyahoga County boasts a fresh water port, two rail-to-truck intermodal terminals, twenty transloading facilities, and ample rail service from Norfolk Southern and CSX. These assets converge along I-77 and the Cuyahoga River, where underutilized industrial sites could support COD.**

Rank	Town	Location	Acres	Owners
1	Cleveland	Independence Road and Campbell Road	74.6	3
2	Unincorporated	Near Garfield Boulevard and Warner Road	116.2	9
3	Cleveland	Between Carter Road and Cuyahoga River	31.4	4
4	Cleveland	E. 55th Street and Morgana Run Trail	26.1	7
5	Cleveland	Independence Road and Rockefeller Avenue	11.8	4
6	Euclid	Euclid Avenue and Magnolia Drive	75.1	2
7	Cleveland	Along CSX Tracks Near Denison and OH-176	34.6	2
8	Cleveland	Between E. 79th Street, RTA Green/Blue Lines, and NS tracks	21.6	21
9	Cleveland	Woodland Avenue and Kinsman Road	14.2	10
10	Bedford Heights	Near Solon Road and I-480	41.6	1
11	Maple Heights	Near Rockside Road and Pennsylvania Avenue	61.3	3
12	Cleveland	E. 55th Street and Kinsman Road	7.1	19
13	Solon	Richmond Road and Bedford Chagrin Parkway	216.2	7
14	Cleveland	Marquette Street and S. Marginal Road	24.6	2
15	Cleveland	E. 82nd Street and Kinsman Road	23.8	18
16	Cleveland	E. 79th Street and Garden Valley Avenue	18.0	6
17	Cleveland	Madison Avenue and W. 105th Street	21.4	2
18	Valley View	Rockside Road and Sweet Valley Drive	129.9	5
19	Garfield Heights	Along CSX Tracks Near Chaincraft Road	31.5	3
20	Cleveland	Pearl South Near Denison Avenue	14.5	4

Most of the region's best COD sites are located within Cleveland or southwestern suburban communities.

### Cuyahoga River, COD Anchor



Through its history, the Cuyahoga River has been a working river. As industry declined in the second half of the twentieth century, many large sites along the river fell into disuse and some have become contaminated. With transportation assets, a ready workforce, and many nearby industrial businesses, though, these sites could see new life as COD. Raw materials or unfinished goods could move in from Minnesota or Canada delivered via water could be processed into finished goods in Cleveland by metal manufacturers, then shipped via CSX or Norfolk Southern to domestic markets. Similarly, large, bulky items such as wind turbines could be manufactured at sites along the river and

shipped to the Dakotas through Duluth. COD along the Cuyahoga River would also take advantage of a supply chain of nearby industrial businesses and an appropriately skilled workforce living in the area.

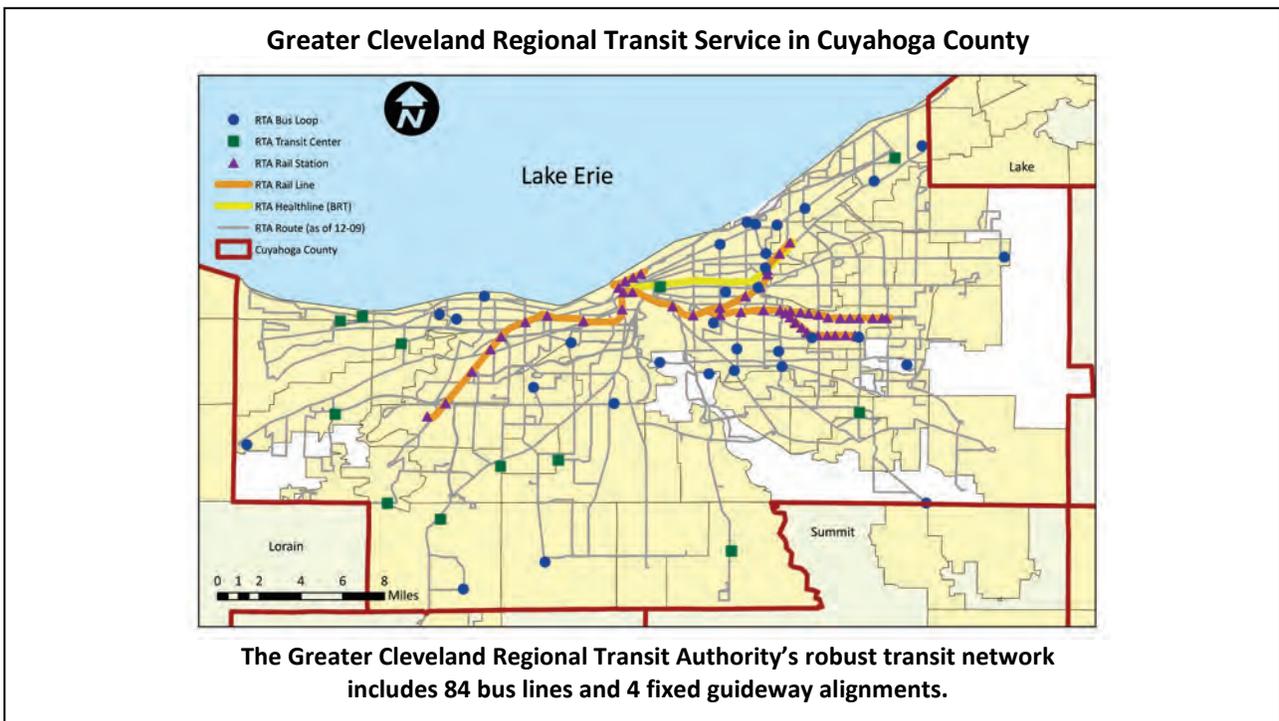


## **Strongest Markets for Transit-Oriented Development**

Cleveland grew up around the streetcar in the 19<sup>th</sup> and 20<sup>th</sup> century. Mass transit can pave the way to a new beginning in the 21<sup>st</sup>. A few key opportunities exist along the Rapid for transit-oriented development (TOD), or neighborhoods that integrate different kinds of housing, neighborhood retail, and amenities like parks and schools within walking distance of a train station.

### **Transit Connections Can Spur Investment**

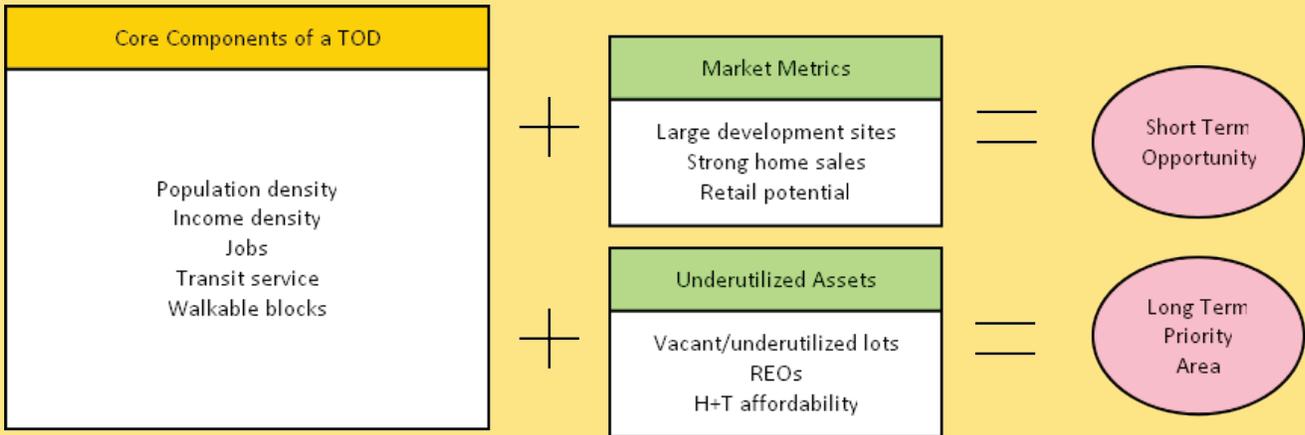
Many of Cleveland's residents, jobs, and institutions are within walking distance of GCRTA's fixed guideway system. Even more are just outside the system's reach. RTA's 84 bus lines, 37 miles of rail service, and seven-mile Bus Rapid Transit route make it possible for many residents and visitors to commute, shop, or run errands without using a car. For example, business travelers shuttling from Cleveland-Hopkins Airport to Downtown can stop for a bite to eat at West Side Market along the way. The HealthLine connects Case Western Reserve, Cleveland State University, the Cleveland Clinic, and many downtown employers. Because the Van Sweringen brothers built Shaker Heights around the streetcar, the Blue and Green Lines connect Shaker Square to Public Square in fifteen minutes.



With so many of these institutions, employers, and districts within walking distance of the system, little changes could spur development. Once the new Mayfield Street station is constructed, Red Line riders will be able to walk a few short blocks to restaurants and retail businesses in Little Italy. For retailers, additional people on the street will mean more walk-in customers. For a neighborhood, it brings a heightened sense of safety and increased desirability. With a few strategic developments around transit, Cleveland can enrich the critical mass of street life that characterize vital urban neighborhoods, and build a stronger market for additional development over time.

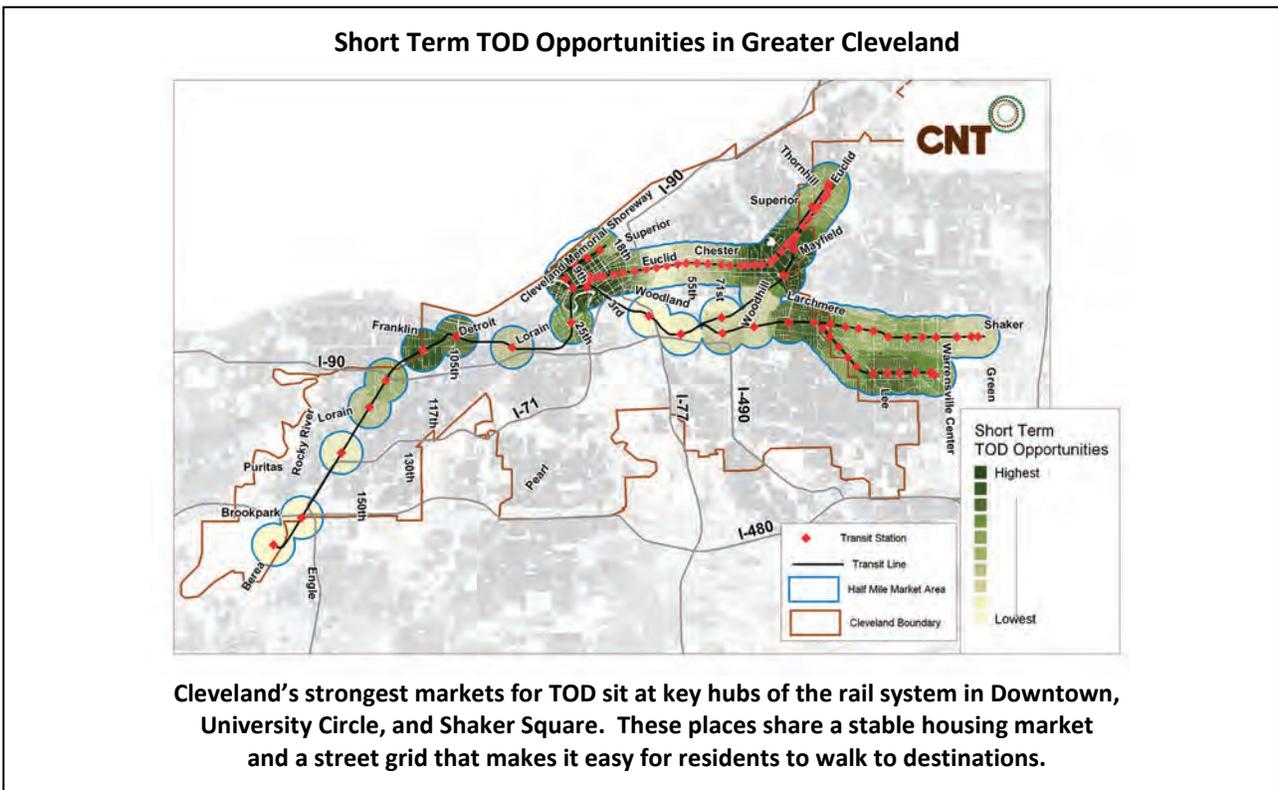
## Scanning for Transit-Oriented Development

CNT's Optimizer tool ranked 92 half mile station areas to identify the strongest markets where the public sector and developers should focus their energy as well as those places that may become more viable as the economy improves. The tool considers the top performers across multiple quantitative variables using a statistical method.

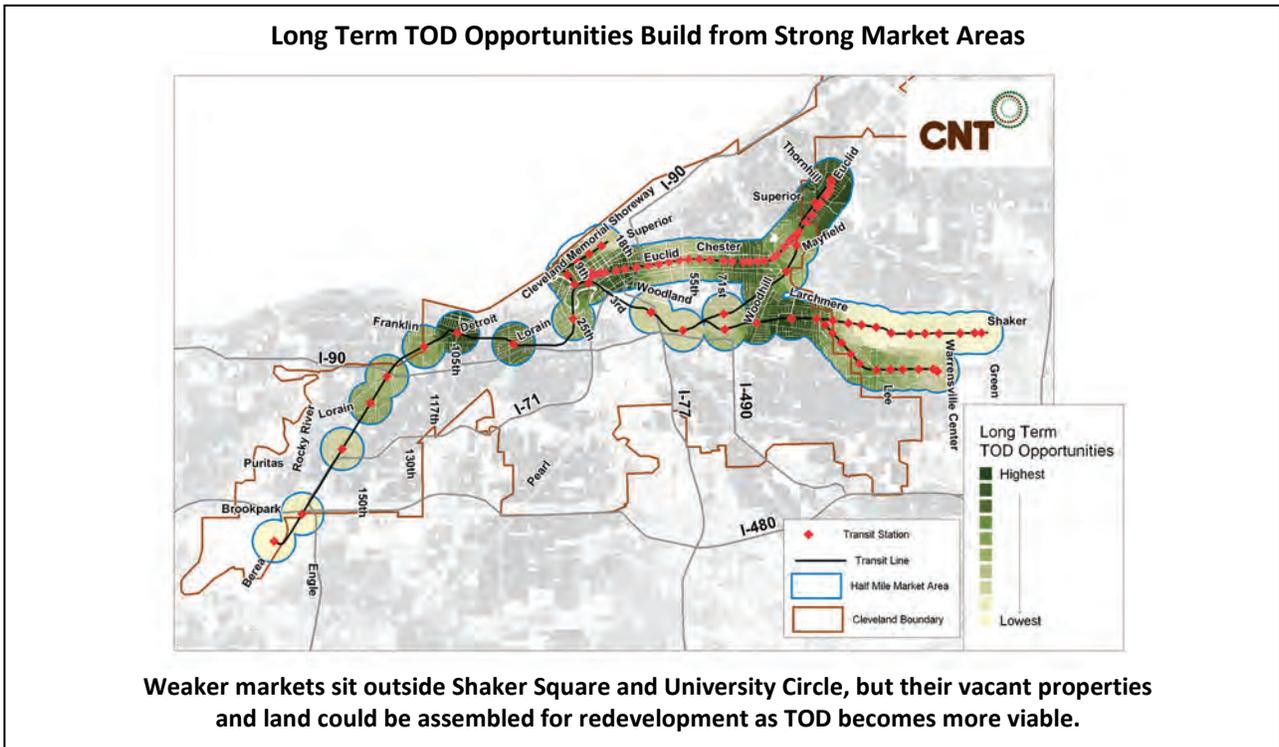


The first of these scans identified the top short term station areas where metrics suggest the market could absorb additional housing units and retail space in transit-served, walkable areas. The second scan removed those metrics but considered concentrations of bank-owned properties and low transportation costs to determine places where TOD fits as a long term community development strategy and where new development would spur affordability.

Right now, the best opportunities for TOD are around University Circle, Public Square, and Shaker Square. Each of these neighborhoods enjoys a stable-to-strong housing market. University Circle and Shaker Square could also support more retail in their shopping districts, although Shaker Square lacks the land for much new development. With several amenities already within walking distance – including jobs, shopping, and cultural venues – new multifamily rental development would make each of these neighborhoods more lively and desirable. Over time, as the market for these communities grows, they should become more popular with retirees and young professionals.



As those places blossom, neighboring communities could become more viable as TOD. Neighborhoods like East Cleveland and Hough possess a walkable grid and handsome homes, but have suffered years of disinvestment. REOs have been accumulating at rates far beyond what the market can support. Over the long term, though, their compactness and relatively low transportation costs make them optimal places for reinvestment. As University Circle and Public Square establish themselves as vibrant TOD communities, these long term markets will also become more viable.

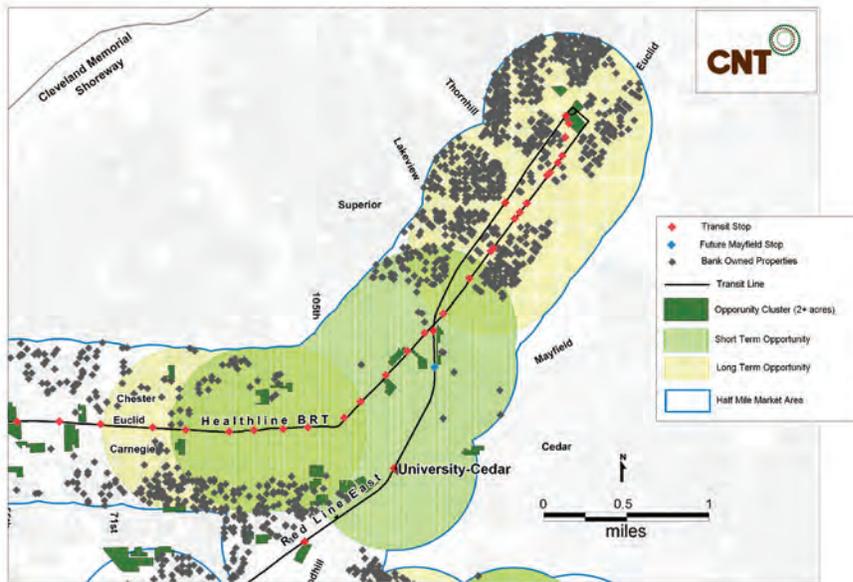


### University Circle: Region’s Best Bet for TOD

The potential for new housing units and retail space is stronger around University Circle than anywhere else in Cleveland, even though the number of development sites is limited. Home loan values hit their peak at \$225,000 just around the planned stop at Mayfield Avenue. Claritas retail projections also suggest substantial opportunity for a new pharmacy, family clothing stores, and a small grocery store. Future developments, such as the 300-unit LEED-ND development planned in Upper Chester and the mixed-use redevelopment at Lot 45, will absorb demand for some retail stores, but new residents will add to the demand for others. The 17 acres of available land may be not enough to satisfy the market.

As University Circle becomes more desirable, its neighbors to the west and northeast could begin to absorb some of the demand. More vacant land and homes sit to the west along Euclid Avenue, anchored by The Cleveland Clinic and the planned West Campus expansion of Case Western Reserve University. To the northeast, the foreclosure crisis hit East Cleveland hard and many homes sit vacant as REOs. Public entities like the Cuyahoga County Land Revitalization Corporation could assemble these homes for redevelopment as the market in the heart of University Circle grows stronger.

### Short and Long Term Markets Around University Circle

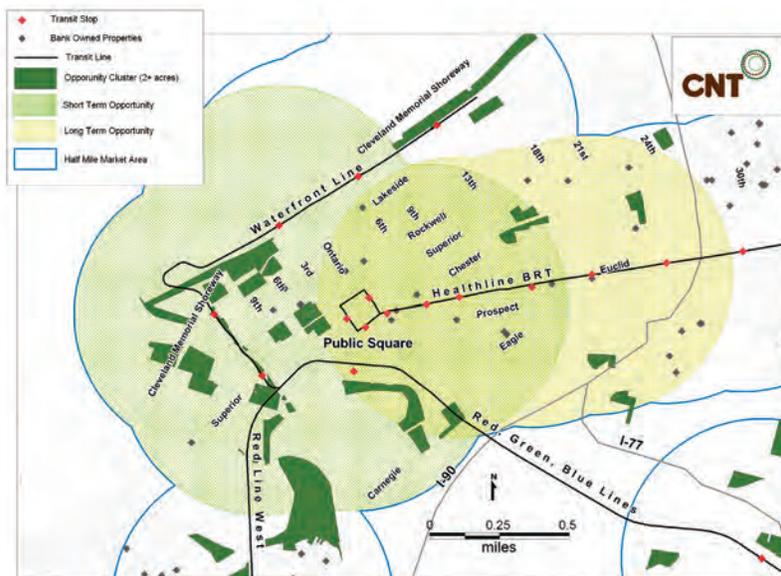


University Circle’s housing and retail markets could support redevelopment on 17 acres of vacant and underutilized land. As the area around University Circle grows stronger, bank owned properties in East Cleveland and Hough could be rehabilitated into TOD.

### Downtown: Creating Affordability through Reinvestment

Sitting at the hub of the transit network, Downtown Cleveland is a second market for TOD. Recent home sales around Public Square, while lower than those in University Circle, are among the highest in transit-served neighborhoods. The 40 acres of parking lots around Public Square are the single largest collection of underutilized properties near fixed guideway transit anywhere in the region, but some barriers stand in the way of redevelopment. These lots cost little in taxes or maintenance each year and generate profit as paid parking, so their owners have little incentive to sell or redevelop. Moreover, Memorial Shoreway’s elevated sections effectively discourage walking between some of these underutilized lots, Lake Erie, and the remainder of Downtown.

### Short Term and Long Term Markets Around Public Square



Over 40 acres of parking lots and underutilized land sit within walking distance of Public Square. With an H+T burden as low as 28 percent, multifamily housing here could generate tax revenue and yield household savings.

Many of these properties also sit along the Waterfront Line, inaugurated in 1996 as a connection between Cleveland's downtown destinations. The line's ridership declined as the Flats lost popularity and it now operates only on weekends. Housing redevelopment and additional retail space would maximize the value of this existing alignment. Moreover, as more people and jobs locate within walking distance of the line, it will become a more viable option for daily commutes and shopping. This would increase transportation options without any capital investment in additional infrastructure.

Over the long term, downtown housing will be an appealing option for households looking to lower their transportation costs. Many jobs are located here, small blocks make it easy to walk around, and most of the region's amenities are within a short transit trip. These factors keep downtown transportation costs low, so the typical H+T burden for a rail or BRT station area within the Innerbelt is between 28 percent and 36 percent. By giving Clevelanders the option to live with fewer cars or no car at all, new investment Downtown will improve regional affordability.

### **Ohio City: West Side Market Can Anchor a Unique Market District**

West Side Market represents a third opportunity for TOD in Ohio City. Public markets across the United States have incubated small businesses, created wealth for entrepreneurs, and spurred redevelopment in their surrounding neighborhoods. In Ann Arbor, for example, customers at the Farmers Market can patronize shops at Kerrytown Market, a rehabilitated warehouse home to 20 different local businesses. Eastern Market in Detroit offers locally grown produce, including items farmed in community gardens on vacant lots. In Seattle, the Pike Place Public Development Authority integrates approximately 500 units of affordable housing and social services for low income residents into a neighborhood alive with shoppers and visitors of all backgrounds.



Just steps from the RTA Red Line station at W. 25th Street, West Side Market could support this kind of community development district. Crops farmed on local city lots or at the Green City Growers co-operative could be bought and sold at market stalls, thereby generating a revenue stream for Cleveland neighborhoods hit hard by disinvestment. Affordable housing and social services integrated with a broader market district would bring low- and moderate-income Clevelanders closer to the GCRTA's Red Line and to downtown jobs. Twelve businesses representing over \$40 million of private investment have recently opened in the district. With major sites owned by the city of Cleveland, RTA, and Cuyahoga Metropolitan Housing Authority (CMHA) within walking distance, there is opportunity to expand on this development.

Niche opportunities exist to capture emerging Baby Boomer and Echo Boomer markets in TOD in Public Square, University Circle, and Ohio City. Additional apartments in these neighborhoods would probably find renters and make money, while owner-occupied housing opportunities are more limited. However, Greater Cleveland faces daunting demographic challenges brought on by a declining population, so job growth near transit must come first. As jobs and transit move closer together, additional markets in East Cleveland, Midtown, and the Cleveland State University area could also support TOD.

# **A Sustainable Growth Strategy for Cleveland**

To forge a new, more efficient paradigm of development in Greater Cleveland, stakeholders in regional growth should pursue four strategies:

1. **ADOPT A REGIONAL DEFINITION OF AFFORDABILITY THAT INCLUDES H+T FOR all public investments that affect housing, economic development, and transportation choice.**
2. **STRENGTHEN THE ECONOMY BY LINKING PEOPLE AND JOBS THROUGH TRANSIT** by bringing new jobs near transit and new transportation options to existing employment centers.
3. **MOBILIZE HUMAN CAPITAL AND FREIGHT TOWARDS CARGO-ORIENTED DEVELOPMENT** through brownfield remediation and land assembly.
4. **TARGET TOD CONSTRUCTION TO STRONG MARKETS IN DOWNTOWN, UNIVERSITY CIRCLE, AND OHIO CITY** through a coordinated public and private sector effort.



## **Set New Benchmarks for Public Investments around H+T**

Investment in automobile-oriented infrastructure has taxed household budgets already strained by increases in health care, mortgage payments, and other expenses. The Greater Cleveland region must concentrate its public resources in affordable H+T neighborhoods to alleviate household exposure to mounting transportation costs. NOACA and municipal governments should:

**SET GOALS FOR REGIONAL DEVELOPMENT AROUND TRANSIT.** NOACA should adopt a goal in future regional planning to focus new development in neighborhoods with transportation choice so that 50 percent of household growth is captured in rail and bus transit corridors. Cleveland and its surrounding communities can share in this growth as transit choice expands.

**TRACK SUCCESS IN SUSTAINABLE DEVELOPMENT.** NOACA should track the number and percentage of jobs and dwelling units within ½ mile of fixed guideway stations and a ¼ mile of arterial bus routes as well as the number of new dwelling units located in block groups affordable to households earning 80 percent of AMI. The region can use these indicators to measure success in a more compact form of development:

**REGULATE LAND USE TO PROMOTE H+T AFFORDABILITY, RATHER THAN RESTRICT IT.** Municipalities should establish inclusionary zoning measures within low and moderate H+T cost areas to provide affordable housing where it is needed most. Inclusionary zoning measures should award density bonuses to development projects in transit zones that exceed the affordable housing requirement. Communities that currently restrict mixed-use and multifamily housing should update their zoning code to permit it around transportation nodes and job centers.

## **Connect People, Jobs, and Transit**

Households, jobs, and transportation options are the “three legged stool” of sustainable economic development. The region should plan its economic development incentives to ensure new and existing jobs are accessible to other businesses, a diverse workforce, and multiple transportation modes. Municipal governments, GCRTA and the business community should:

**CREATE TRANSPORTATION MANAGEMENT DISTRICTS THAT LINK JOB CENTERS TO FIXED GUIDEWAY ROUTES.** More than 160,000 jobs sit along the GCRTA's fixed guideway lines, but many jobs along the Outerbelt are just outside transit's reach. Businesses in these job centers should pool their resources to create vanpool options for their employees that link with nearby stations on the Red, Blue, and Green Lines. These TMDs will widen the available labor pool for Cleveland businesses while giving their employees the choice of living with fewer cars or driving less.

**SUBSIDIZE INCUBATOR SPACE ALONG EUCLID AVENUE.** Small firms in Cleveland badly need affordable space. The Ohio Department of Development should subsidize space along Euclid Avenue in Midtown, where the HealthLine provides easy access to professional firms downtown and to the research institutions in University Circle. Incubation space in this corridor will reinforce the connection between downtown and University Circle and allow Cleveland to maximize the knowledge spillovers created by job density.

**LOCATE WORKFORCE TRAINING CENTERS NEAR TRANSIT FACILITIES.** "Old" and "new" economy businesses can create jobs for workers with lower levels of education, but for economic development to reach transit-dependent populations, the training facilities to acquire the skills for these jobs need to be accessible. Cleveland, Cuyahoga County, and the Ohio Department of Development should collaborate to ensure every single job training site is within ½ mile of fixed guideway stations and a ¼ mile of bus routes.

**REQUIRE CLEVELAND EMPLOYERS TO OFFER PRE-TAX TRANSIT BENEFITS.** The federal pre-tax transit benefit allows employees to purchase transit passes before federal income and payroll taxes are deducted. Following model legislation in place in San Francisco and under consideration in Berkeley, Chicago, and New York state, Cuyahoga County should encourage the use of this program across the county and require certain businesses with quality access to transit to offer this benefit to their employees.

**CONSTRUCT THE BLUE LINE EXTENSION AND TOD AT WARRENSVILLE/VAN AKEN.** An extension of the Blue Line to the Outerbelt would bring transit to a major employment center and increase job access for households living along the entire system. Shaker Heights' proposed multimodal center would also create additional jobs near transit. This new alignment and development will create economic development felt along the entire GCRTA fixed guideway system.

**CREATE A COALITION OF TRANSIT AGENCIES FOR A ROBUST REGIONAL SYSTEM.** Transit agencies in Greater Cleveland operate on a county-by-county basis and are funded primarily by county sales tax, which limits interregional connections, even though many employees commute to their jobs across county lines. GCRTA, Lorain County Transit, and other providers should agree to share capital equipment, vehicles, and labor to create an economy of scale that expands regional connectivity and allows robust transit service to survive even in trying economic times.

## **Turn Cleveland's Freight Advantage into COD**

Cleveland built its manufacturing strength in the 19<sup>th</sup> and 20<sup>th</sup> centuries from its railroads and waterways. It can rebuild it in the 21<sup>st</sup> century with the same infrastructure. Strong economic advantages remain in Greater Cleveland's metalworking and composite materials sectors, skilled workforce, and rich freight assets. To overcome the obstacles of brownfield contamination and land fragmentation, a public and private partnership for COD should:

**ESTABLISH A DIVISION FOR CARGO-ORIENTED DEVELOPMENT AT NOACA.** Urban industrial redevelopment is a multiyear process that requires land assembly, environmental remediation, marketing, and new capital investments. NOACA should dedicate staff capacity to work with local planners to move the region's

strongest COD sites through the predevelopment process. This division should develop partnerships with private investors to redevelop assembled land into new warehousing and manufacturing space.

**ADMINISTER A REVOLVING LOAN FUND FOR LAND ACQUISITION.** Because urban sites cannot compete with cheap farmland made valuable by highways, land assembly remains the single biggest barrier to urban redevelopment. NOACA's COD division, the Ohio Department of Development and Cleveland's foundation community should work together to create a revolving loan fund with a dedicated revenue stream to allow municipalities to assemble small parcels and package them together as major redevelopment opportunities.

**ASSEMBLE LAND ALONG THE CUYAHOGA RIVER FOR SITES ABOVE 20 ACRES IN SIZE.** Most potential COD sites along the Cuyahoga River are divided among two to five owners, making land assembly a difficult but achievable goal. NOACA's COD department, the Cleveland land bank, the Cuyahoga County Land Revitalization Corporation should work in concert to assemble underutilized industrial properties for environmental assessment and eventual redevelopment.

**ASSESS AND REMEDIATE COD SITES.** Public resources for cleaning environmentally contaminated sites are limited, yet the costs of clean up loom large. Municipalities should apply for and leverage all OEPA and USEPA programs to clean brownfields. Using state and federal resources, this project should create a pipeline that moves individual sites through the assessment process, remediation and finally redevelopment by private investors.

**INVEST IN THE PORT OF CLEVELAND.** Cleveland's port is one of the largest on the Great Lakes, but it needs capital to increase capacity. While the economy leaves little room for major investments in municipal budgets, increased capacity at the Port will bring Cleveland businesses closer to consumer markets and create economic impacts that last generations. Cleveland and Cuyahoga County should apply for and leverage resources from the US Department of Transportation, Economic Development Administration, and ODOT to increase capacity.

## **Diversify the Region's Housing Choices through TOD**

Job and population growth must increase significantly for widespread TOD. However, with some niche opportunities for multifamily rental, Cleveland should encourage TOD near top markets in Downtown, University Circle, and Ohio City. As new job growth takes hold near transit, additional TOD may be viable in weaker markets nearby. To encourage TOD, the public and private sectors should:

**EXPEDITE THE APPROVAL PROCESS FOR TOD.** The easiest way to encourage development is to make it quicker for developers to move projects along. Cleveland should prioritize all planned developments around TOD and pledge full approval for all TOD projects within 60 days of application.

**UPDATE ZONING TO FOCUS RESIDENTIAL DENSITY MIXED-USE DEVELOPMENT AROUND TRANSIT STATIONS.** Mixed-use developments should be allowed around transit stations. Similarly, parking requirements should be reduced or eliminated entirely. The mixed-use overlay around Euclid Avenue in Midtown should be expanded to cover all half mile station areas within the Cleveland city limits.

**LIMIT NEW RETAIL TO STATION AREAS AND TRANSIT NODES.** With consumer spending declining, Greater Cleveland has more retail than it can support. However, density can increase the total wealth of a neighborhood and make the market for essential goods and services, such as grocery and pharmacies, more viable. Focusing

retail development around transit stations will make these businesses more feasible and will increase shopping options for Clevelanders living near other stations on the line.

**STRATEGICALLY LEVERAGE CDBG, ENERGY RETROFITS, AND OTHER FEDERAL RESOURCES AROUND STATION AREAS.** Federal resources in housing should work in concert to promote affordable investment around transit. To maximize local and federal investments, Cleveland should work to ensure that all federal resources for its housing stock are leveraged with existing TOD and land banking initiatives.

**FILL PRO FORMA GAPS FOR STRATEGIC DEVELOPMENTS NEAR TRANSIT.** Because of the cost of construction for urban infill, Cleveland developers often struggle to meet the middle of the urban market. That market includes young professionals and moderate income workers who will demand to live near transit in increasing numbers. The Ohio Housing Finance Authority should provide developers with subordinated debt that developers can use as supplementary financing.

**ESTABLISH “FEE-IN-LIEU” FINANCING FOR STRUCTURED PARKING NEAR PUBLIC SQUARE.** Parking lots near Public Square represent the single biggest opportunity for development near transit in Cleveland. However, the income they generate discourages their owners from selling or redeveloping. A fee in lieu financing mechanism would allow new developments to sidestep parking requirements and pay for a shared parking structure instead. Shared parking creates competition for surface lots and an economic incentive for owners to redevelop them.

**CREATE A MARKET DEVELOPMENT AUTHORITY AROUND WEST SIDE MARKET.** The City of Cleveland and Ohio City Near West CDC should establish a development authority to integrate housing and retail into a market district around West Side Market. This development authority should have the ability to leverage tax credits, government grants and private equity to create new affordable housing, rehabilitate historic properties and develop retail incubation space.

**ENCOURAGE JOINT DEVELOPMENT.** GCRTA should market its property to private investors and help shepherd it through the development process. Redevelopment of GCRTA parcels could generate income for the agency and increase ridership by bringing more residents within walking distance of its stations.

**ASSEMBLE BANK OWNED PROPERTIES NEAR TRANSIT.** Neighborhoods like Hough and East Cleveland have suffered greatly from home foreclosures and REOs throughout the decade. At the same time, these communities are attractive prospects for affordable redevelopment as TOD in University Circle takes hold. The Cuyahoga County Land Revitalization Corporation should strategically assemble these properties and maintain them for long term TOD development.

**BRING MEMORIAL SHOREWAY TO GRADE LEVEL.** Memorial Shoreway severs Cleveland from its lakefront and depresses the value of properties within walking distance of Public Square. As this aging expressway requires rehabilitation and replacement, Cleveland and the Ohio Department of Transportation should bring the roadway to grade level in downtown and create infrastructure that connects Cleveland to its lakefront.

**CONTINUE THE STATION RELOCATION PROCESS.** GCRTA’s planned relocation of its Red Line station at Mayfield Road will bring transit closer to Little Italy and create better pedestrian access to University Circle. GCRTA should identify other stations along its existing fixed guideway system that could facilitate these “last mile” pedestrian connections. With capital funds limited, GCRTA should work with a proposed Livable Communities program administered by NOACA to finance these station relocations.

## **Bibliography**

The Brookings Institution and Greater Ohio Policy Center. *Restoring Prosperity: Transforming Ohio's Communities for the Next Economy*. Washington, DC: February 2010.

Carlino, Gerald, Satyajit Chatterjee and Robert Hunt. "Urban Density and the Rate of Innovation". Federal Reserve Bank of Philadelphia. Philadelphia, PA: August 2006.

Center for Ports and Waterways. *A Modal Comparison of Domestic Freight Transportation Effects on the General Public*. Prepared for the U.S. Maritime Administration and the National Waterways Foundation. Houston, TX: March 2009.

Center for Transit-Oriented Development. *Hidden in Plain Sight: Capturing the Demand for Housing Near Transit*. September 2004.

Center for Transit-Oriented Development. *Transit and Regional Economic Development*. Prepared for the Federal Transit Administration. August 2010.

Cleveland+. "Cleveland+Akron+Canton+Youngstown". <http://www.clevelandplusbiomedical.com/>. Cleveland, OH: 2010.

Cortright, Joseph. "The Young and the Restless in a Knowledge Economy". CEOs for Cities. September 2004.

Coulton, Claudia, Tsui Chan, Michael Schramm, Kristen Mikelbank. *Pathways to Foreclosure: A Longitudinal Study of Mortgage Loans, Cleveland and Cuyahoga County, 2005-2008*. Center on Urban Poverty and Community Development, Case Western Reserve University. Cleveland, OH: June 2008.

Ducker, Adam. "Market Forces Shaping Smart Growth". Presentation at the United States Environmental Protection Agency. Apr 5 2010.

The Federal Reserve Bank of Cleveland. *Facing the Foreclosure Crisis in Greater Cleveland: What Happened and How Communities are Responding*. Cleveland, OH: June 2010.

Fulton, William, Rolf Pendall, Mai Nguyen, and Alicia Harrison. *Who Sprawls Most? How Growth Patterns Differ Across the U.S.* The Brookings Institution Center on Urban & Metropolitan Policy. Washington, DC: July 2001.

Glaeser, Edward and Joshua Gottlieb. "The Wealth of Cities: Agglomeration Economies and Spatial Equilibrium in the United States". *Journal of Economic Literature*, American Economic Association, vol. 47(4), March 2009.

Global Insight and Reeve & Associates. *Four Corridor Case Studies of Short-Sea Shipping Services*. Submitted to the U.S. Department of Transportation, Maritime Administration. Washington, DC: August 2006.

Transport Canada, U.S. Army Corps of Engineers, et al. *Great Lakes St. Lawrence Seaway Study*. Fall 2007.

Howe, Neil and William Strauss. *Millennials Rising: The Next Generation*. New York: Vintage, 2000.

Joint Center for Housing Studies of Harvard University. *The State of the Nation's Housing 2009*. Cambridge, MA: 2009.

Kruse, C. James and Nathan Hutson. *North American Marine Highways*. Prepared for the National Cooperative Freight Research Program. Washington, DC: 2010.

Martin Associates. "Analysis of Port of Cleveland Container Market". Prepared for the Cleveland-Cuyahoga County Port Authority. Lancaster, PA: March 2008.

McIlwain, John. *Housing in America: The Next Decade*. The Urban Land Institute. Washington, DC: January 2010.

Mid-Ohio Regional Planning Commission. *Central Ohio Freight Fact Book*. Columbus, OH: August 2004.

Mikelbank, Brian A. *Spatial Analysis of the Impact of Vacant, Abandoned and Foreclosed Properties*. Federal Reserve Bank of Cleveland. Cleveland, OH: November 2008.

Miller, Jay. "Cleveland-Cuyahoga County Port Authority consultant lays out port's impact on region", *Crain's Cleveland Business*. Cleveland, OH: November 2010.

Moody's Economic & Consumer Credit Analytics. "Précis® Metro: Cleveland". June 2009.

Myers, Dowell and SungHo Ryu. "Aging Baby Boomers and the Generational Housing Bubble: Foresight and Mitigation of an Epic Transition". *Journal of the American Planning Association*, Vol. 74 No. 1. Winter 2008.

Nelson, Arthur C. "Preparing for the Next Building Boom". Presentation at New Partners for Smart Growth Conference. Feb 9 2007.

Northeast Ohio Areawide Coordinating Agency. *Connections 2030: A Framework for the 2030 Transportation System, 2009 Update*. Cleveland, OH: May 2009.

PricewaterhouseCoopers and the Urban Land Institute. *Emerging Trends in Real Estate 2010*. November 2009.

Saxenian, Anna Lee. "Creating a Twentieth Century Technical Community: Frederick Terman's Silicon Valley". Department of City and Regional Planning, University of Berkeley. <http://people.ischool.berkeley.edu/~anno/Papers/terman.html>. Berkeley, CA: November 1995.

Swanstrom, Todd, Karen Chapple, Dan Immergluck. *Regional Resilience in the Face of Foreclosure: Evidence from Six Metropolitan Areas*. The Network on Building Resilient Regions, University of California Berkeley. Berkeley, CA: May 2009.

Toledo-Lucas County Port Authority. "Toledo-Lucas County Port Authority Dredge Acquisition". Grant application for the U.S. Department of Transportation: 2009.

United States Maritime Administration. *America's Ports and Intermodal Transportation System*. Washington, DC: January 2009.

Vey, Jennifer, John C. Austin, and Jennifer Bradley. *The Next Economy: Economic Recovery and Transformation in the Great Lakes Region*. The Brookings Institution Center on Urban & Metropolitan Policy. Washington, DC: September 2010.

Weissbourd, Robert and Christopher Berry. "Cities and Economic Prosperity". CEOs for Cities. Chicago, IL: 1999.

Zettek, Charles Jr. *A Cost of Government Study for Northeast Ohio*. CGR. Rochester, NY: June 2008.

## **Photo Credits**

Cover: Skyscrapercity.com

Page 1: Flickr/haglundc

Page 11: GCRTA

Page 11: Flickr/ctownrocks1

Page 20: Flickr/x376

Page 23: CNT

Page 27: Flickr/ctownrocks1

Page 29: Wikimedia, Creative Commons license

Page 30: Fairmount Properties/The Wolstein Group

## **Acknowledgements**

*BUILT in Cleveland* would not have been possible without the generosity of Living Cities. The Center for Neighborhood Technology thanks them for their support of this project.

This report was guided by a stakeholder roundtable of 46 elected officials, business advocates, municipal staff, and not-for-profits. Their participation in two roundtable events and several in-depth phone interviews was critical to the success of the BUILT In Cleveland project. They are:

- Paul Alsenas, Cuyahoga County Planning Commission
- David Beach, Green City / Blue Lake Institute
- Robert Brown, Cleveland City Planning Commission
- Joyce Burke-Jones, Cuyahoga County Office of Sustainability
- Joseph Calabrese, Greater Cleveland Regional Transit Authority
- Brad Chase, Green City / Blue Lake Institute
- Jessica Colley, Strishna Development Advisors
- Mayor Bill Currin, City of Hudson
- James Danek, Cleveland City Planning Commission
- Maura David, Geis Companies
- Sean Davis, Greater Cleveland Partnership
- James DeRosa, Greater Cleveland Regional Transit Authority
- Donovan Duncan, Cuyahoga Metropolitan Housing Authority
- Maribeth Feke, Greater Cleveland Regional Transit Authority
- Scott Garson, NAI Daus Associates
- Fred Geis, Geis Companies
- Justin Glanville, ParkWorks
- Anne Hill, Office of Governor Ted Strickland
- Jonathan Holody, Cuyahoga County Department of Development
- Trevor Hunt, Cleveland City Planning Commission
- Debra Janik, Greater Cleveland Partnership
- Michelle Johnson, Northeast Ohio Areawide Coordinating Agency
- Mark Lammon, Downtown Cleveland Alliance
- Mayor Michael Lyons, Village of Richfield
- Howard Maier, Northeast Ohio Areawide Coordinating Agency
- Ari Maron, MRN, Ltd
- Ryan McKenzie, City Wheels
- James Michael, ParkWorks
- John Mitterholzer, The George Gund Foundation
- Caroline Nardi, Parsons Brinkerhoff
- Greg Peckham, Cleveland Public Art, Inc.
- Jeff Pesler, Midtown Cleveland
- Scott Pollock, Cuyahoga Metropolitan Housing Authority
- Al Ratner, Forest City Enterprises
- Chris Ronayne, University Circle Inc.
- Tim Rosenberger, Parsons Brinkerhoff
- Bill Sanderson, Forest City Land Group
- Michael Schipper, Greater Cleveland Regional Transit Authority
- Mary Ann Stropkay, ShoreBank Cleveland
- Ed Taylor, Greater Cleveland Regional Transit Authority
- Ben Trimble, Ohio City Near West Development Corporation
- Chris Warren, Office of Mayor Frank Jackson
- Linda Warren, Neighborhood Progress Inc.
- Andrew Watterson, City of Cleveland
- Danielle Willis, Greater Cleveland Regional Transit Authority
- Eric Wobser, Ohio City Near West Development Corporation

Additionally, Marvin Hayes in Governor Ted Strickland's office helped envision the idea for this project and cultivated relationships in Northeast Ohio that were essential to its success.

Kyle Smith, Economic Development Planner & Analyst at CNT, was the principal author of this report with assistance from María Choca Urban, CNT Director of Transportation and Community Development. Their work was supported by CNT staff members Al Benedict, Harley Cooper, Peter Haas, and Kathrine Nichols with additional contributions by Rik Adamski, Brian Dyer, David Gleicher, Laura Pepper, and Paul Sohn.



## **About CNT**

The Center for Neighborhood Technology (CNT) is an award-winning innovations laboratory for urban sustainability. Since 1978, CNT has been working to show urban communities in Chicago and across the country how to develop more sustainably. CNT promotes the better and more efficient use of the undervalued resources and inherent advantages of the built and natural systems that comprise the urban environment.

As a creative think-and-do tank, we research, promote, and implement innovative solutions to improve the economy and the environment; make good use of existing resources and community assets; restore the health of natural systems and increase the wealth and well-being of people—now and in the future. CNT's unique approach combines cutting edge research and analysis, public policy advocacy, the creation of web-based information tools for transparency and accountability, and the advancement of economic development social ventures to address those problems in innovative ways.

CNT works in four areas: transportation and community development, natural resources, energy and climate. CNT's two affiliates, I-GOTM Car Sharing and CNT Energy, enable individuals and building owners to reduce their expenses in transportation and energy.

CNT is a recipient of the 2009 MacArthur Award for Creative and Effective Institutions.

More information about CNT is available at [www.cnt.org](http://www.cnt.org)