Broadening Urban Investment to Leverage Transit (BUILT) in Columbus

Center for Neighborhood Technology
April 2011

Central Ohio is at a turning point. Unemployment in the Columbus region hit 9.8 percent in January 2010. While state government, the Ohio State University, and leading businesses have helped make Columbus the most resilient economy in Ohio, household budgets are stretched thin. 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.

The region is an economic powerhouse. According to the U.S. Bureau of Economic Analysis, Central Ohio pumped out $90 billion dollars of economic activity in 2008 – 19 percent of the statewide total. 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 60,000 more units than the market could support, just since 2000.
- Residents spend more than six billion dollars per year just to cover their transportation needs —gas alone siphons three billion, eight hundred million dollars of wealth out of the local economy for foreign oil.
- 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 Central Ohio poorly 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 Columbus.

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

- High Street connects two major employment centers in Downtown and around OSU.
- The proposed North Corridor could spur transit-oriented development along High Street near these economic centers.
- Opportunities for cargo-oriented development exist on numerous sites in southern Columbus.

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, the Livable Communities Act, 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 present 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, Central Ohio can forge a new, sustainable future centered around its transportation assets, economic strengths and resourceful residents.

Sincerely,

Scott Bernstein
President

Kathryn Tholin
Chief Executive Officer

Table of Contents

Columbus's Sustainable Growth Challenge

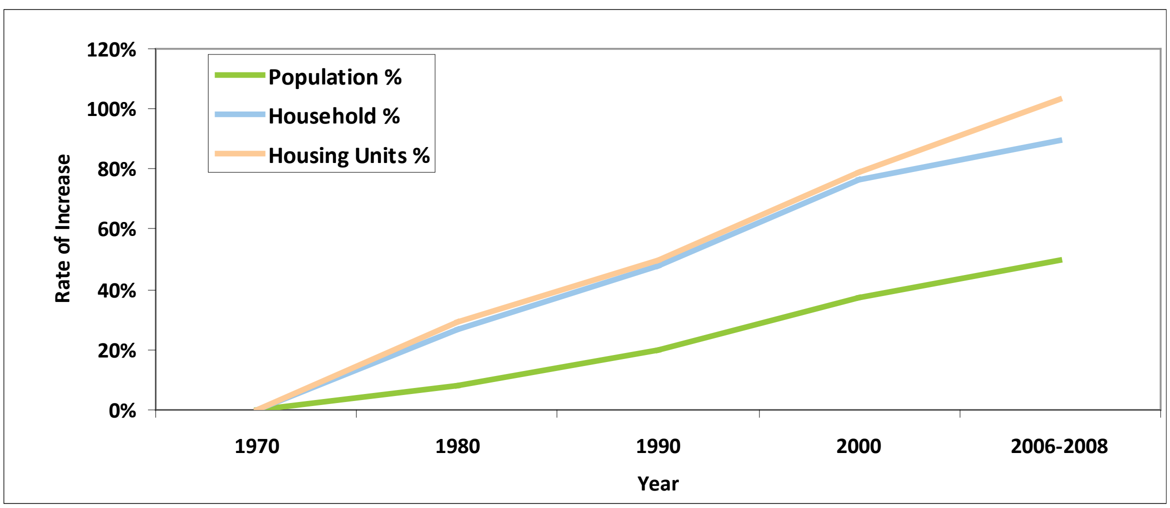
In 2009 and 2010, the Office of Governor Ted Strickland and the Center for Neighborhood Technology formed a partnership with regional leaders in Cincinnati, Cleveland, and Columbus. The project, called **BROADENING URBAN INVESTMENT TO LEVERAGE TRANSIT (BUILT) IN OHIO**, sought to identify smart growth strategies for each region by building on existing urban assets. Leaders in Central 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

For decades, Central Ohio grew steadily, with most communities enjoying gains. According to the U.S. Census Bureau, the population of Franklin County and its six surrounding counties of Delaware, Fairfield, Licking, Madison, Pickaway and Union Counties grew by 49 percent from 1.2 million residents in 1970 to 1.7 million residents in 2008. Like most Americans, Columbus residents started to raise smaller families than previous generations, so the number of households almost doubled. Columbus, Franklin County, and surrounding counties shared in the growth by adding over one hundred thousand new residents each.

Yet even while the region expanded, it produced more housing and devoured more land than its growth warranted. State and federal investments in interstates made tracts of cheap farmland accessible, easy to assemble, and attractive for development. Developers built about 60,000 more homes than households existed to live in them, around 1.2 units for each new household gained. Franklin County added about 57,000 of these surplus units, with surrounding counties accounting for the remainder.

Net Population, Household, and Housing Unit Growth, United States Census, 1970 – 2006/2008



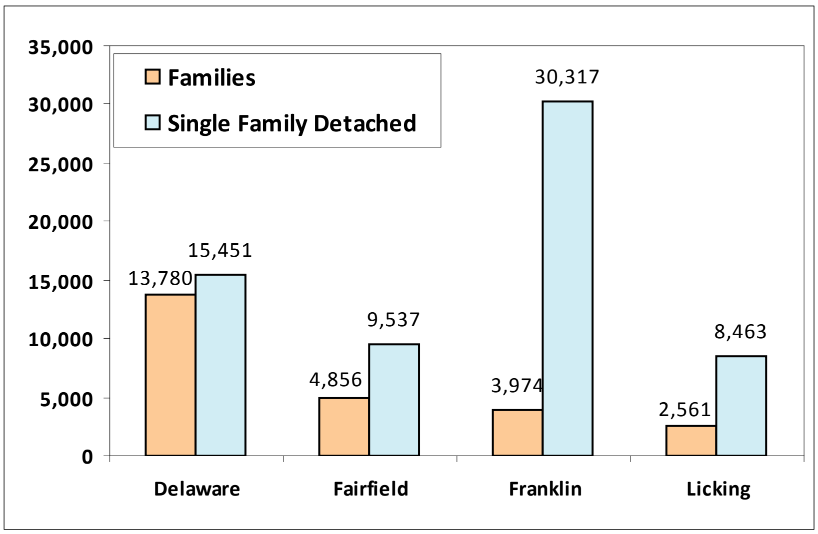
Source: U.S. Census, 2006-2008 American Community Survey 3-Year Estimates

Beginning around 2000, the increase in the number of homes in Central Ohio was larger than the growth in households that would be expected to demand them.

During the last decade, Central Ohio began to produce many more housing units than demand could sustain. New residents moved in from elsewhere and young people struck out on their own, so the number of households grew by 47,261. The number of housing units grew by 90,851 or almost twice as many. The U.S. Department of Agriculture's Census of Agriculture reports that between 2002 and 2007 the seven county region lost 159 square miles of farmland, an area one third the size of Franklin County. Because so much excess inventory was added to the regional housing stock, the number of vacant units doubled between 2000 and 2008.

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. Only about half of the region's new households were families, but seven out of ten new housing units were single-family homes. By 2008, the housing market produced two and a half single family homes for every new family. In Franklin County, the increase in single-family units was more than seven and a half times greater than that of new families.

Net Change in Total Families and Total Single Family Detached Homes, 2000 – 2008



Source: U.S. Census, 2006-2008 American Community Survey 3-Year Estimates

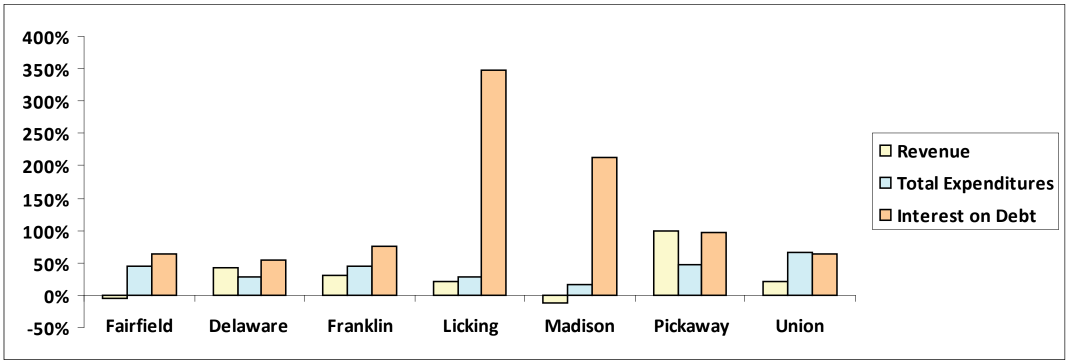
The number of single family homes increased by 63,768 since 2000, but Central Ohioans only formed 25,171 new families during the decade.

Hypnotized by Steady Growth

Solid population growth masked the sustainability of these development patterns. For business leaders, greenfield development represents new profit and economic development, so sprawl ranks low on the list of regional concerns. Central Ohio too often benchmarks its success in population growth and economic expansion against Cleveland and Cincinnati — and it is true that the region leads its neighbors. But the region has also built almost as much excess housing as Greater Cleveland over the course of the decade.

Suburban expansion requires new roads, sewers, and schools, but some governments in Columbus have had difficulty keeping pace. Declines in tax revenue already threaten school districts in older suburban neighborhoods. The Fund for Our Economic Future found that between 1997 and 2002, the combined debt of municipal, county, and school district budgets outran increases in revenue for every county in Central Ohio. Mayor Coleman's "pay as we grow" policy for water and sewer infrastructure is an important step that acknowledges the tax burden of new development. Continued leadership is necessary, because if these patterns persist unimpeded, the bills will eventually come due.

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



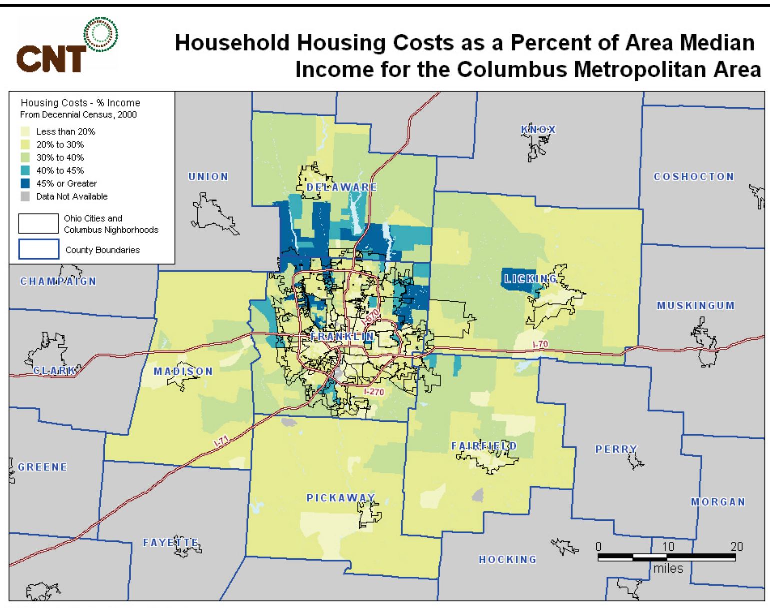
Source: Fund for our Economic Future

The costs of infrastructure and services for new development cut across county, municipal, and school district budgets. Even after accounting for population growth, taxing entities in the region piled up debt far quicker than they saw their revenues rise.

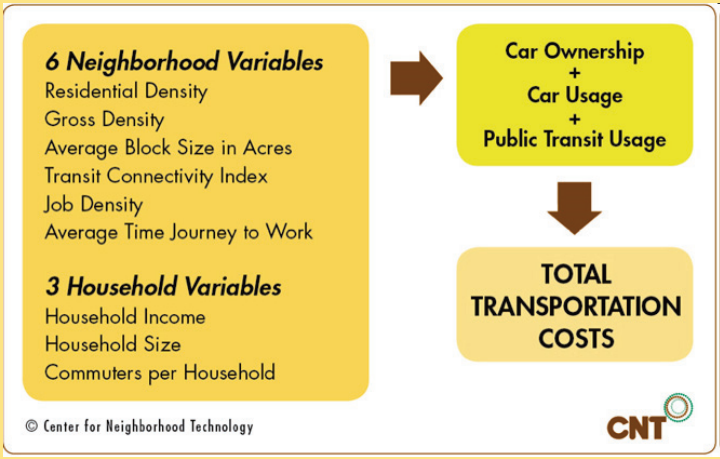
Housing + Transportation Costs Draining Household Budgets

Central Ohio's housing market is generally seen as affordable. A typical Columbus household earning the Area Median Income (AMI) of $44,782 spent approximately 26 percent of its income on housing costs in 2000, below the generally accepted 30 percent affordability benchmark for housing costs as a share of income. In reality, suburban sprawl has exposed households in Greater Columbus to escalating transportation costs and little transportation choice.

Of course, the price for a house or apartment varies greatly from one neighborhood to the next. In Greater Columbus, many neighborhoods inside the I-270 loop meet the 30 percent benchmark. But housing can cost a typical household over 45 percent of their income in some communities such as Dublin, New Albany, and unincorporated Delaware County. Nonetheless, 461,826 (76 percent) of the region's 610,741 households live in neighborhoods with average housing affordable at AMI. By this metric, Columbus is the seventh most affordable region for housing among the nation's metropolitan areas.

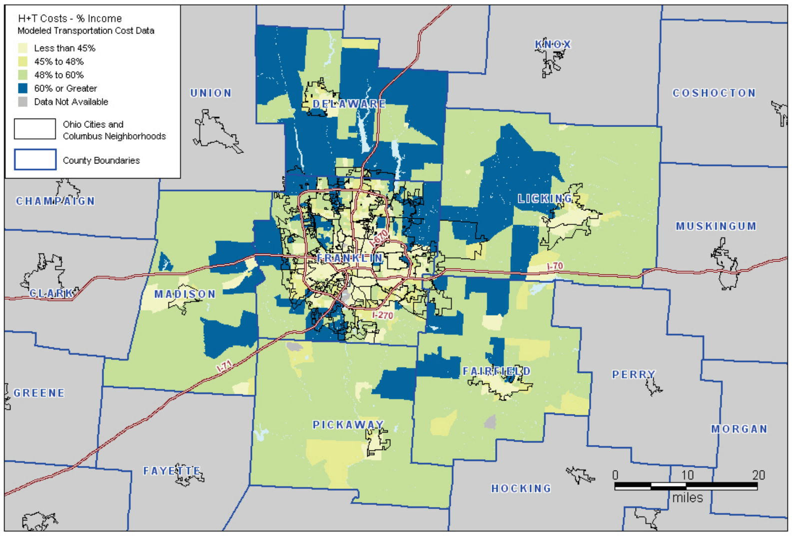


Under the traditional definition of housing affordability, three out of four households live in neighborhoods with average housing costs affordable to a household making the Area Median Income.



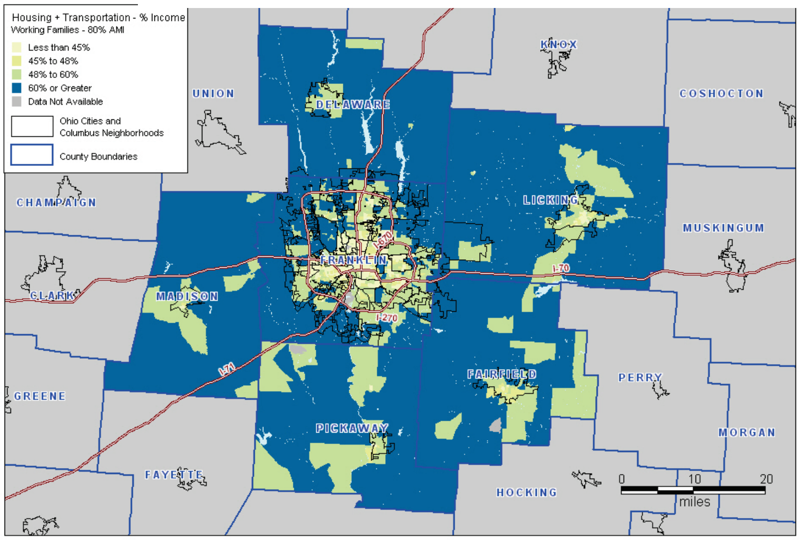
The Housing and Transportation (H+T®) Affordability Index is based on a multidimensional regression analysis, in which a formula describes the relationship between three dependent variables (auto ownership, auto use, and transit use) and nine main independent household and local environment variables. Neighborhood level (Census block group) 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.

Household Housing + Transportation Costs as a Percent of Area Median Income for the Columbus Metropolitan Area



Only 47 percent Central Ohio 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 AMI.

Household Housing + Transportation Costs as a Percent of Income for Working Families (80 percent of AMI)



Even fewer options exist for moderate income households earning 80 percent of Area Median Income.

Only one in five of the region's households live in neighborhoods affordable at this income level.

However, this traditional view of housing affordability fails to consider the cost of transportation, which represent a household's second largest expenditure and vary 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 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.

By this standard, affordable housing virtually vanishes outside of the I-270 loop. Communities in southern Delaware, northern Franklin, and eastern Madison Counties have all witnessed substantial population growth, but the lack of transportation choice pushes their combined housing and transportation costs above 60 percent of a typical paycheck. By contrast, most neighborhoods within the Outerbelt offer combined H+T costs below 45 percent. Along the most densely populated section of High Street between German Village and Ohio State University, where residents can enjoy short commutes to work, ample bus service, and shopping within walking distance, transportation costs rarely exceed 19 percent of income.

For working households that take in 80 percent of AMI each year ($35,826), H+T affordability becomes very difficult to achieve. A typical household at this income level spends 57 percent of earnings just on rent or a mortgage and getting around. Along High Street, those costs account for around 35 percent of a budget at this income level, but north of the Outerbelt, it doubles to 70 percent.

Assuming 2000 prices for gasoline, Columbus households spent $6.1 billion dollars each year just on transportation. But assuming the same travel behavior at 2008 gas prices, transportation expenditures would surge by an additional $1.4 billion. With households having stretched their budgets just to pay for the cost of living, little disposable income remained for investment in homeownership, college savings, or retirement.

By 2008, rising fuel costs were siphoning $2.2 billion dollars of consumer spending out of the economy for petroleum products from other parts of the world. According to the Bureau of Economic Analysis, just over 5,000 residents worked at Columbus gas stations in 2008. By contrast, in 2008, sales by Columbus retailers accounted for $5.8 billion dollars in economic output and 100,777 jobs. 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 Columbus Homeowners to More Foreclosures

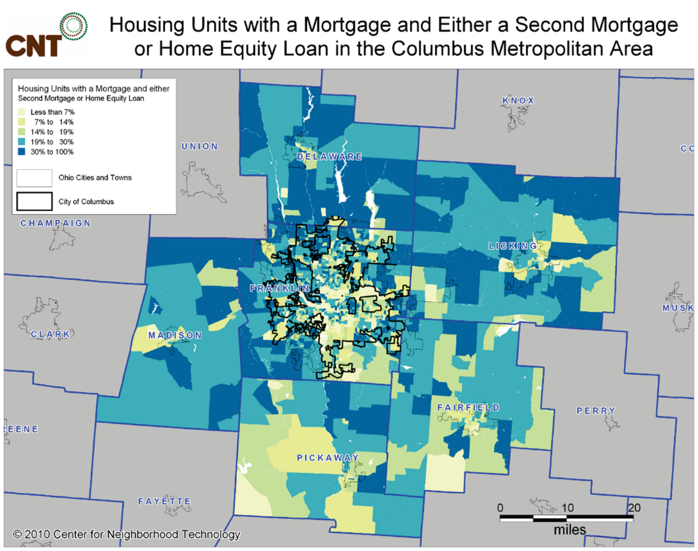
Easy credit spurred a construction boom, allowed households to purchase homes beyond their means and temporarily obscured the fact that the region added more homes than the market could support. However, as the economy weakened, home foreclosure spilled outward from the city of Columbus into automobile-oriented exurbs.

Subprime lending in low- and moderate-income communities offered some borrowers access to credit for the first time. First-time homebuyers purchased homes through new home loan products with variable interest rates and low down payments. Eventually, those payments reset and moved upward. Housing prices had only modestly appreciated, so as borrowers fell behind, their refinancing options were limited. Linden, Southside, and Hilltop saw many properties enter foreclosure in significant numbers, according to data on foreclosure proceedings and repossessions provided by RealtyTrac.

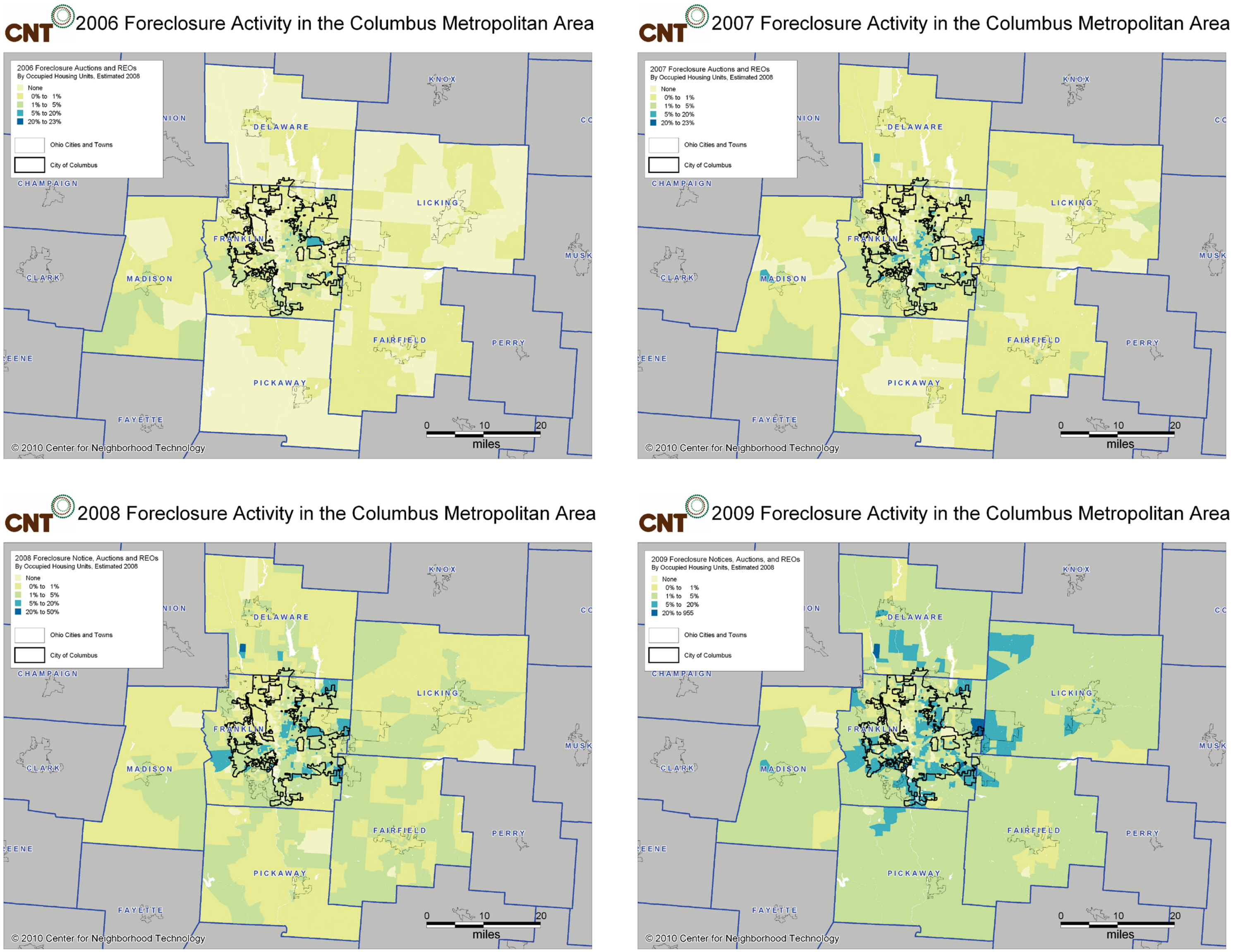
As neighbors of these foreclosed homes saw their home values fall, their options for refinancing dwindled and some of them entered foreclosure as well. The market struggled to find new owners for all of these newly vacant properties. Four out of ten foreclosed homes remained in the possession of banks 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 Delaware County, for example, the number of foreclosed homes doubled between 2007 and 2008 and then tripled between 2008 and 2009. These suburban neighborhoods struggled mightily to find new owners for these properties and two thirds of them remained unoccupied by the beginning of 2010.

Many homes in these communities are overleveraged. As many as one in three 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 another wave of layoffs to cause another cycle of home foreclosures and declining property values.



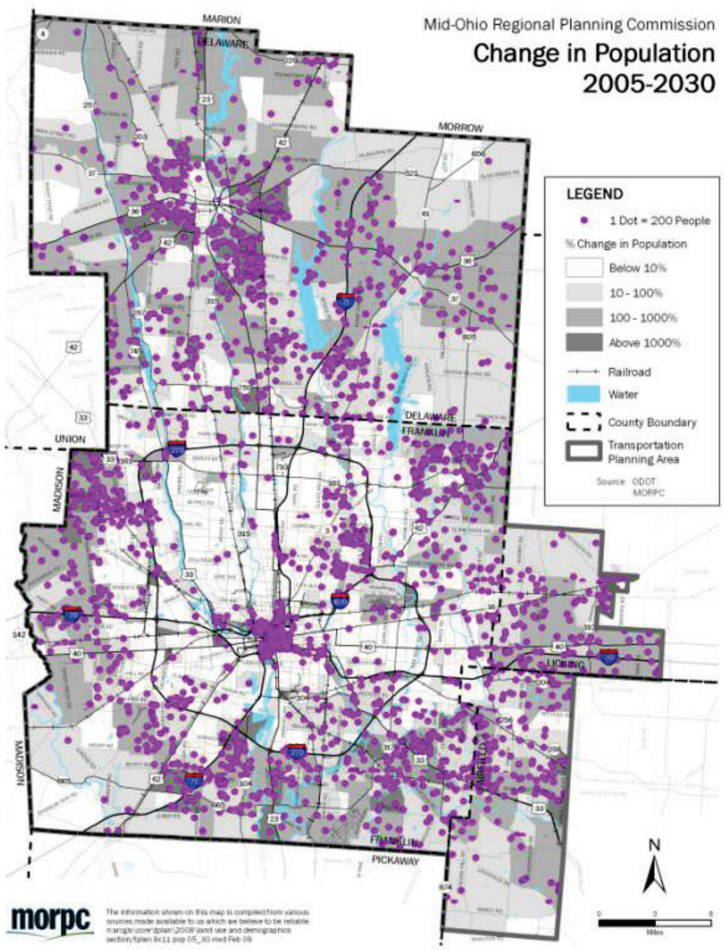
In many outlying areas in Central Ohio, three in ten properties have either a second mortgage or home equity loan. Should some of these homeowners fall behind on payments because of job loss or higher fuel costs, another round of home foreclosures could unfold



Home foreclosures were concentrated in central Columbus at the start of the recession, but have spread to automobile-dependent communities that are exposed to increases in gas costs.

Regional Planning Identifies Shifts in Development Patterns, But Is It Enough?

The Mid-Ohio Regional Planning Commission (MORPC) projects these trends to largely continue through 2030. MORPC anticipates that high transportation cost communities will capture a vast majority of household growth, with 320,000 households moving to communities located outside the I-270 Outerbelt by 2030. MORPC expects that the urban core will experience some growth, as 15,045 people and 10,277 households migrate into three neighborhoods along High Street: Downtown, the Short North, and the OSU area.



MORPC projects some growth around Downtown Columbus. Nonetheless, development patterns are expected to continue through 2030.

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

- 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 continued 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 and will the region suffer from duplicative services and infrastructure?
- Is there more opportunity to capture population increases along High Street and elsewhere within I-270 under a balanced growth scenario?

The recent pattern of development is a historical trend, but it is not a destiny. An inventive and balanced approach to regional growth can avoid recent outcomes and create a new paradigm of growth in the 21st century.

Housing Market is Changing Both Nationally and Locally

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 Columbus. 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	• New sales down 62.2% • New starts down 63.7%	• New developments struggling with foreclosures “may have no staying power” • Prolonged 20 year “sell off” as boomers age & relocate
Multifamily	• New starts down 19.6% • Positioned for “strong rebound” during recovery	• Rental near transit is “almost can’t miss” • “Locations near transit corridors are prime”
Condo & Townhomes	• Sales down 37.2% • Owner vacancy rates “rising dramatically” in small buildings	• Demand from aging boomers will pick up as recession eases • However, “overbuilt” markets will remain weak for forseeable future

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.

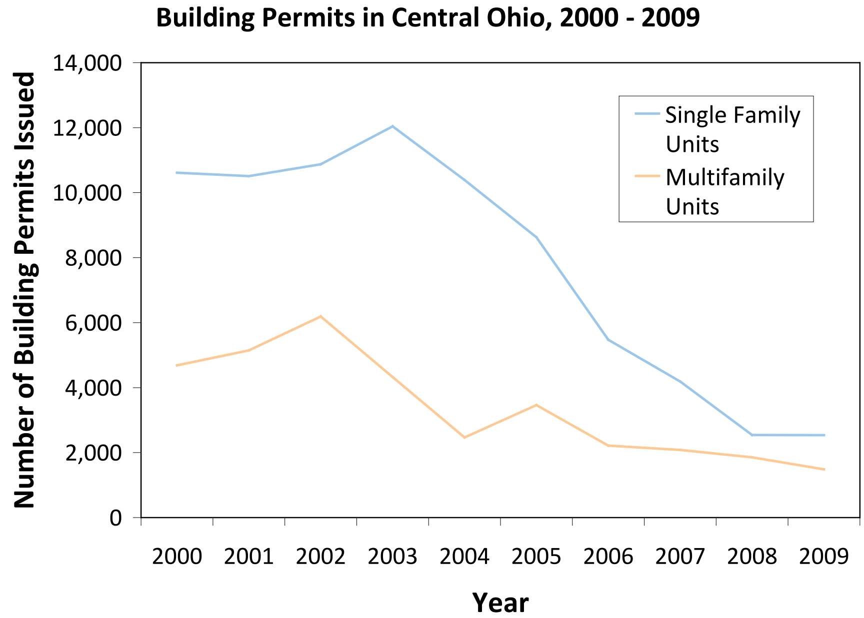
Meanwhile, younger households show little desire to purchase their parents homes. With low paychecks and few entry level jobs, this generation is renting longer and delaying home ownership. Because younger households are expected to marry later and have fewer children, many will eventually look to buy 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	● Childless and single person households fastest growing ● 88% of household growth 2005-2030 will be childless
Baby Boomers (1946 - 1964)	● Seniors to working age ratio means more sellers than buyers ● 71% of working older households want to live by transit ● 75% of retiring boomers want to live in mixed-use areas ● Negative home equity and good health may slow trend
Echo Boomers (1982 - 1999)	● 77% want to live in urban core ● 1/3 will pay more to walk to shops, work, & entertainment ● 50%+ will trade lot size for proximity to shop/work ● Income constraints will drive demand for rental ● Regions must invest in place to retain them
Immigrants	● Preference for closely connected suburbs, not "cul de sacs"

Changes in the nation’s demographics will shift demand for housing away from single-family homes and towards mixed-use communities.

Tapping Central Ohio's Growing Market for Mixed-Use

Multifamily developments have been scarce in Central Ohio, especially in suburban and exurban counties. Only three out of ten new building permits issued over the last decade were for apartments and condominiums and most of those units were built in Franklin County. In surrounding counties, one out of ten units was in multifamily buildings. By the time that construction slowed to a trickle in 2009, 96 percent of the region's new apartments and condominiums were located in Franklin County — a success for the core, but a disproportionate number within the region.



Source: U.S. Department of Housing and Urban Development

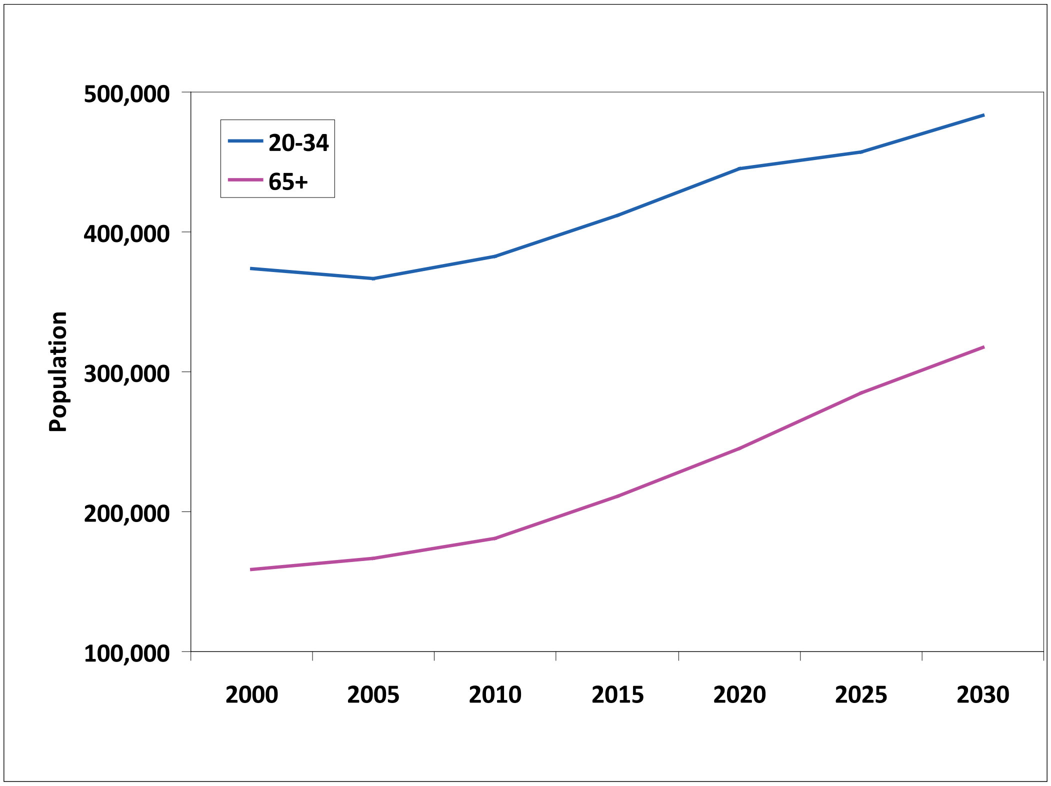
Around 70 percent of all new housing units built since 2000 were single-family.
This level of production exceeds that of neighboring markets in Cleveland and Cincinnati.

However, the market is growing, as recent successes in Columbus have demonstrated. Since the release of Mayor Michael Coleman's Downtown Plan in 2002, the Central Business District has added 5,600 apartments and condominiums. The downtown market has stayed stable during the recession, while property values in surrounding neighborhoods have appreciated because of their historic building stock. Urban neighborhoods that were seen as risky investments ten years ago now see rehabilitation and redevelopment.

Young professionals seeking to live in compact, walkable communities have generated much of the demand. Renters have chosen to live in the Short North and commute many miles to exurban employers like Abercrombie & Fitch because they love the neighborhood and its amenities. A developer interviewed for this analysis considered young professionals looking for a high energy environment to be his largest market for rental units and his second largest market for condominiums. Empty nesters have also bought some urban units, especially downtown, but their purchases slowed when the economy entered recession.

Demand for these units will continue to increase. According to projections developed by the Ohio Department of Development, the number of residents in Central Ohio between 20 and 35 will grow by an additional 100,790 by 2030. A total of 136,370 additional residents will be over 65 in 2030. As these age brackets grow in size, they will represent a deep market for mixed-use housing that has not been met by the current level of production.

Projected Growth in Select Demographics, 2000 - 2030



Source: Ohio Department of Development

By 2030, ODOD projects that the number of seniors and young residents will represent 37 percent of the regional population, up from 34 percent in 2000. These groups will drive the Columbus market for compact neighborhoods and mixed-use housing.

Columbus needs more neighborhoods like the Short North to keep attracting young professionals. A CEO for Cities report titled "City Vitals" recently ranked the Columbus metropolitan area ninth in the nation for attracting college graduates between 25 and 35, ahead of large cities like New York or Chicago. More investment is needed to stay competitive with peer regions like Denver or Charlotte. Young people that have talent will move where they want to live and jobs will follow them. Many already go to great lengths to live in the city and drive long distances to suburban job centers.

Changing demographics and investor preferences will drive an expanding market for mixed-use development by 2030. Vibrant and active neighborhoods will help attract skilled knowledge workers from across the country, protect municipal budgets, and keep the economy competitive over the long term.

Building the Economy by Investing in Place

As a government and educational center, Columbus boasts the most stable economy in Ohio. State government, the Ohio State University and the insurance industry, and numerous other sectors hold great potential for future job growth. By better connecting these businesses and institutions to each other, Columbus can create more innovation, ideas, and business growth.

Investors See Solid Growth, but Unmet Potential for More

Educational institutions, research, and logistics drive the knowledge economy of Central Ohio. According to Moody's Economy.com, OSU will lead the region to a quicker economic recovery than anywhere else in Ohio. As the country's largest university campus, the University provides high-value jobs in research and medicine, and its graduates have been a flexible labor force for knowledge industries. The insurance industry has also remained competitive during the recession and protected the Columbus economy from greater decline. Business advocates also identified warehousing and the logistics industry as key economic strengths.

Strengths	Opportunities
● Superior industrial diversity ● Safety from manufacturing decline ● OSU is creating recession-proof jobs and flexible labor pool ● Logistics and warehousing ● Lower costs of living & business	● Venture capital low but increasing ● Financial services expected to drive growth ● National investments in freight rail and shipping
Weaknesses	**Threats**
● Lack of dynamic growth drivers ● Household credit under duress	● Complacency about national position ● Underperforming other metros in new patents and business startups ● Recruitment of young talent

Finance, transportation and education have driven growth and protected Central Ohio from recession, but some analysts believe the region has not fully taken advantage of its strengths.

These strengths put Columbus ahead of slow-growing neighbors like Cleveland and Cincinnati, but the region hasn't been a leader in innovation or high tech industry. The region is rich in research and development institutions like OSU, its Medical Center, and Battelle, but it lags far down the list of the 50 largest American metropolitan areas in measures of innovation: 35th in patents, 41st in total venture capital raised, 41st in self-employed workers, and 48th in small business. No other region in the United States underperformed Columbus across these four metrics. Regional institutions provide the infrastructure for research and development, but Central Ohio must find a better way to deploy it to increase innovation and manufacturing capacity.

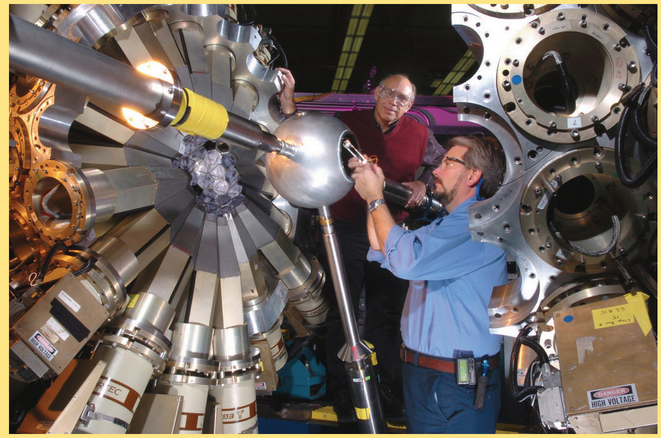
Knowledge Industries and Logistics Have Been Growing

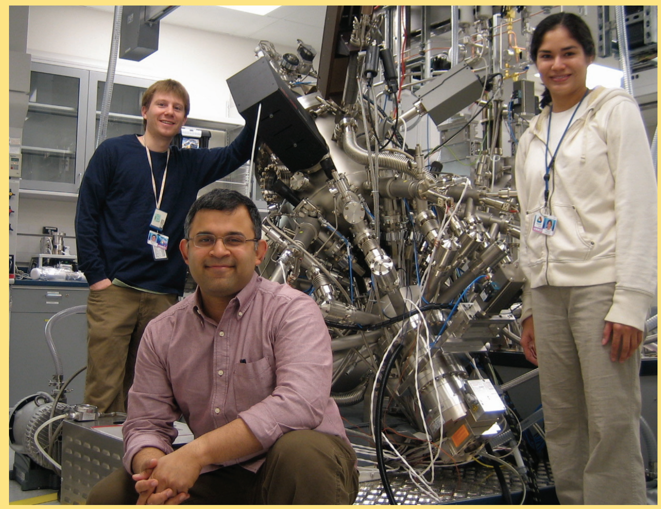
The Columbus MSA lost 12,283 jobs between 2002 and 2008, but many sectors in its regional economy outperformed their national counterparts. CNT examined employment data from the Bureau of Labor Statistics to assess how different sectors of Central Ohio's economy fared when compared to the nation and 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 controlling employment changes for these kinds of national trends, a picture of local competitive advantage emerges.

Professional services also bolstered the economy over the decade. Employment in the insurance industry declined nationally, but Columbus gained about 500 jobs. And while the number of financial transaction processing jobs increased across the country, the rate of growth in Central Ohio was 34 percent higher than the national average. The region also outpaced the nation in the growth of specialized service design, computer system design and call center businesses. Columbus' strengths compliment those of its neighbors and better linkages could make several regional economies more competitive. For example, companies could outsource administrative functions to an office in Cleveland while retaining specialized services in Columbus, taking advantage of each city's competitive strength.

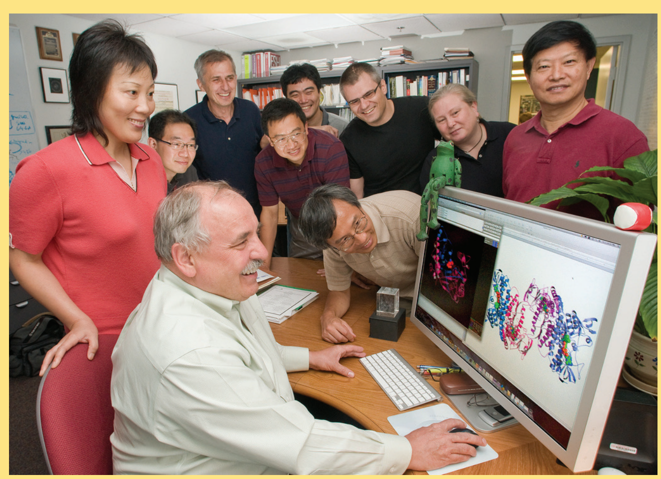
"Old" and "New" Industries Are Both Part of an Inclusive Economic Strategy

Logistics, professional services, and other businesses all create jobs across skill and educational levels. Investment in these sectors can drive new jobs for all kinds of residents, from highly educated professionals to workers without a college degree. Warehousing facilities require workers to pack, process, and load goods. 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

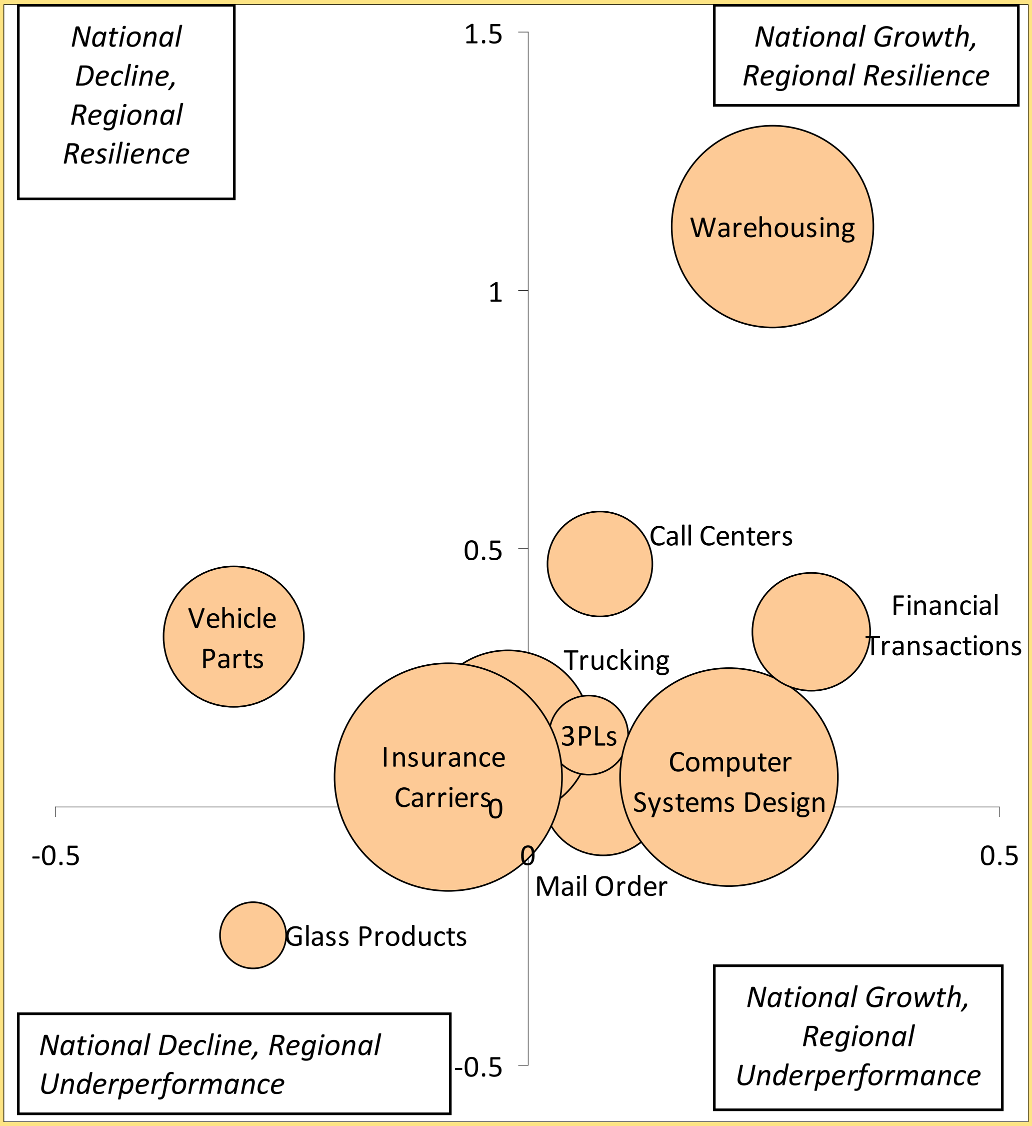




*In the **knowledge economy**, ideas and information have become central commodities that spur growth, not unlike the soil for a farmer or iron ore for a manufacturing firm. Computer software and the internet have made the transmission of information easy. From researchers and engineers to architects and computer analysts, knowledge workers add value through their insights, data skills, and intellectual work – and create economic growth as a result.*



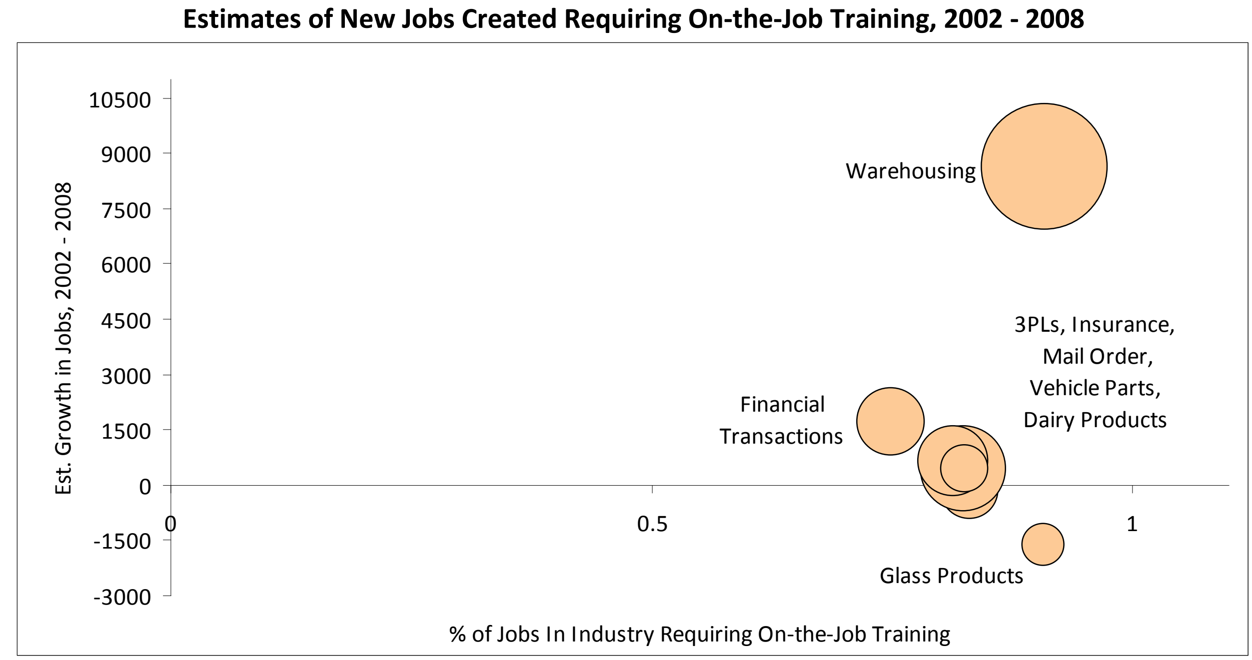
Shift Share Analysis of Recent Job Growth in Greater Columbus, 2002 - 2008



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

Using data from the Bureau of Labor Statistics, CNT examined the components of job change between 2002 and 2008 for fifteen industry sectors in which the Columbus region is more specialized than in the nation as a whole. Three factors drive job growth for one of these sectors: 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 Columbus and may be worthy of additional attention and investment. The lower right quadrant displays national growth industries that underperformed in Columbus. Finally, sectors in the lower left quadrant declined more in Columbus than in the nation as a whole.



Sources: Bureau of Labor Statistics and U.S. Census Bureau

Both "old" and "new" economy businesses created jobs across skill sets between 2002 and 2008. Warehousing led the way by creating an estimated 8,632 positions only requiring on-the-job training.

Assuming that the skill level of jobs locally matches the national experience as reported by the U.S. Census Bureau, many of Central Ohio's industries created substantial numbers of jobs for workers without a college degree between 2002 and 2008. These numbers demonstrate that growth in logistics, manufacturing and the knowledge economy can all bring new jobs for Columbus residents of different educational backgrounds and skill 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.

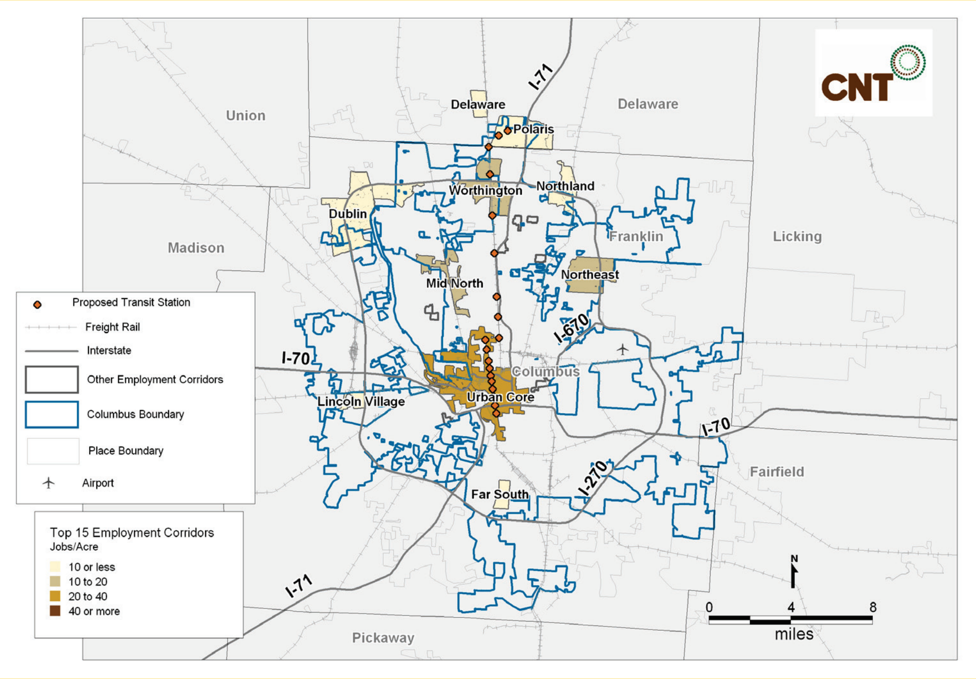
Just as in the Bay Area, Columbus' densest job corridors could drive economic growth. Ohio State University, Battelle Memorial Institute, Nationwide Insurance, and numerous other businesses are only a few miles from each other. However, innovators and entrepreneurs also need interconnected urban environments 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

High Street could be one place where this kind of economic development happens. The corridor links one out of five of Central Ohio's jobs between OSU and German Village over an area of 9.3 square miles. After Cleveland, this jobs corridor includes the second highest number of jobs in the state. At 17,675 jobs per square mile, it is more than twice as job-rich as the next densest regional districts in Worthington and Northeast Columbus and more than three times as job dense as Dublin. However, Downtown and OSU also lost 5.1 percent of their employment base between 2002 and 2008.

High Street ties together the economic activity of the corridor. Nationwide Industries and other knowledge firms directly front High Street and the Battelle Memorial Institute sits about a mile away. Increased transportation connections between these two employment centers would create the kind of urban environment and human-scale venues where Columbus workers, from researchers at OSU to knowledge workers downtown, could informally network and swap ideas.

Job Center Name	Jobs in 2008	Jobs Per Square Mile, 2008	Change, 2002 - 2008
Downtown-OSU	163,693	17,675	-5.1%
Dublin	45,209	6,196	21.2%
Worthington	27,284	8,525	-11.1%
Northeast Columbus	26,891	8,229	38.8%
Polaris	18,684	5,091	34.6%
Mid North	16,012	9,186	13.4%
Westerville	11,374	6,015	3.1%
Lancaster	5,261	6,033	-3.1%
Newark	4,612	11,939	4.7%
Delaware County	4,053	4,996	28.0%
Lincoln Village	3,495	6,200	-6.7%
Far South	3,242	4,522	11.0%
Circleville	3,226	7,003	-10.6%
Delaware City	2,580	7,528	1.8%
Lancaster	1,394	9,397	-4.7%



CNT identified regional employment centers using Local Employment Dynamics (LED) data 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 Columbus and the OSU neighborhood.

The Downtown-OSU corridor in Columbus, which is connected by High Street, contains 163,700 jobs and a density of 17,700 jobs per square mile. Another three out of ten (29 percent) live outside Cuyahoga County altogether.

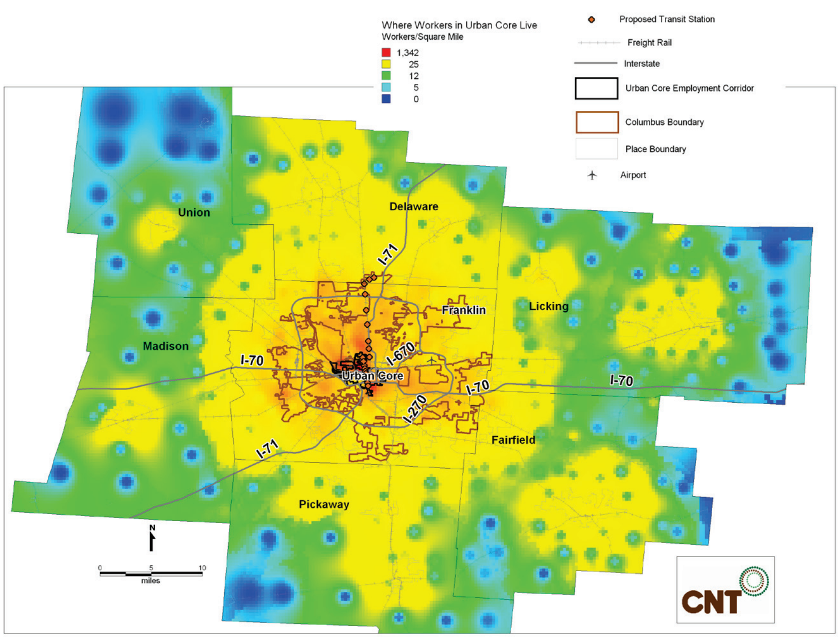
Source: U.S. Census, Local Employment Dynamics

Other job centers are just as significant. The next fourteen largest employment centers in Central Ohio possessed 173,317 jobs, about 10,000 more than in Downtown-OSU. These fourteen corridors grew by 13 percent between 2002 and 2008. Tremendous specialization in financial and professional services has helped make Dublin the seventh largest job corridor in the whole state. Office and insurance jobs cluster in other places across the I-270 beltway, especially in Worthington, the Far North neighborhood, and the Northeast neighborhood. Fewer job centers are located to the south.

Job Corridors Build Wealth for the Region

Every day, Central Ohioans go to work in these centers, then return home to spend their earnings on housing, retail, clothing, and taxes. The vitality of communities across Greater Columbus owe the vitality of their neighborhoods to the success of these workplaces. In the urban core of Columbus, for example, 61 percent of the workforce commutes to their jobs from Upper Arlington, Dublin, Gahanna, and elsewhere. A salary earned at a job at OSU supports a local business in Dublin or Westerville, which in turn boosts taxes.

Commute Shed for the Columbus Urban Core



Just under 60 percent of commuters to the urban core live outside the city limits.

The viability of the urban center and suburban communities depend on this relationship.

Source: U.S. Census, Local Employment Dynamics

However, Central Ohio jobs and residents have been moving further apart from one another. As residents burn more fuel to commute, their earnings disappear as quickly as the gas. Just fewer than 10 percent of employees who work in the urban core live within this district's boundaries, which include parts of German Village, Grandview, and the Short North. Most others live far enough away from work that their only transportation option is a car. If households lived closer to their city jobs and if employers hired more local residents, more could walk, bike or take transit to work.

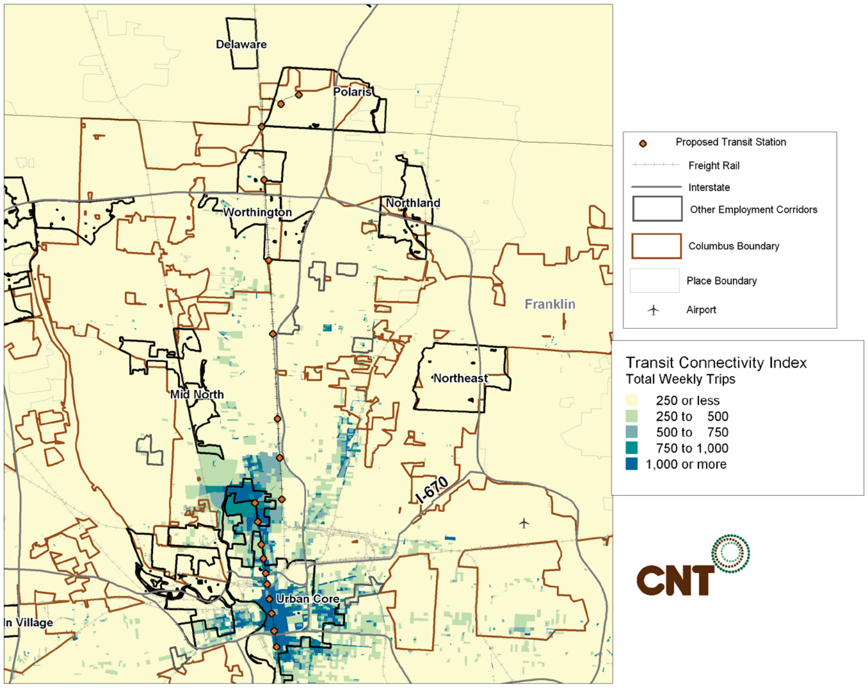
Ultimately, an investment in the economy is an investment in place. Many of the region's strongest industries, from knowledge-based sectors like insurance to transportation-driven businesses in logistics, cluster in specific parts of the region. Whether in Downtown, Worthington, or around Rickenbacker, sustained growth in these industries will require infrastructure for commuters, clients, travelers, 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.

North Corridor Can Spur Transit-Oriented Development

COTA North Corridor Would Provide More Connections in the Region

High Street ties together Ohio's second largest jobs corridor and Columbus's strongest success stories in urban development. The Central Ohio Transit Authority provides ample bus service here and its lines converge around OSU and much of Downtown. Moreover, a sales tax increase levied in 2006 has allowed the bus system to maintain its level of service during the recent recession, while tightening budgets forced other transit systems in Ohio and across the country to make drastic cuts. Since that increase, COTA increased service by approximately 33 percent and plans to expand further through 2015.

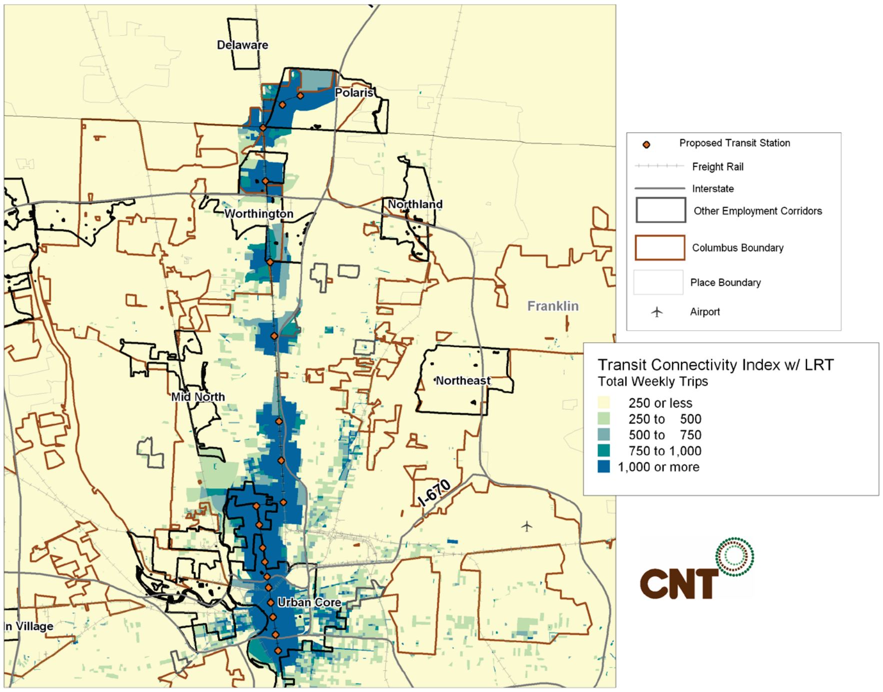
Present Transit Connectivity along the Proposed North Corridor



COTA operates more than 60 bus routes that converge around Downtown and OSU, but gaps in frequency remain along High Street.

In 2002, COTA proposed a light rail alignment to run along High Street from German Village to the OSU campus then continue north along freight tracks to Polaris. Known as the North Corridor, this transit service would make transit trips more reliable than ever before. From German Village, through Downtown, past the Convention Center, and through the OSU campus, the North Corridor would serve the urban core's primary assets and link with existing bus service. Right now, all of these neighborhoods, institutions, and facilities generate foot traffic, but remain isolated from each other. The North Corridor would circulate riders from one to another. OSU students could take the service to bars in the Short North without stepping into an automobile. Visitors at downtown hotels would have easy access to some of the city's liveliest neighborhoods.

Transit Connectivity with the North Corridor Included



The North Corridor would transform the connections along High Street between German Village and OSU, with additional links to Worthington and Polaris.

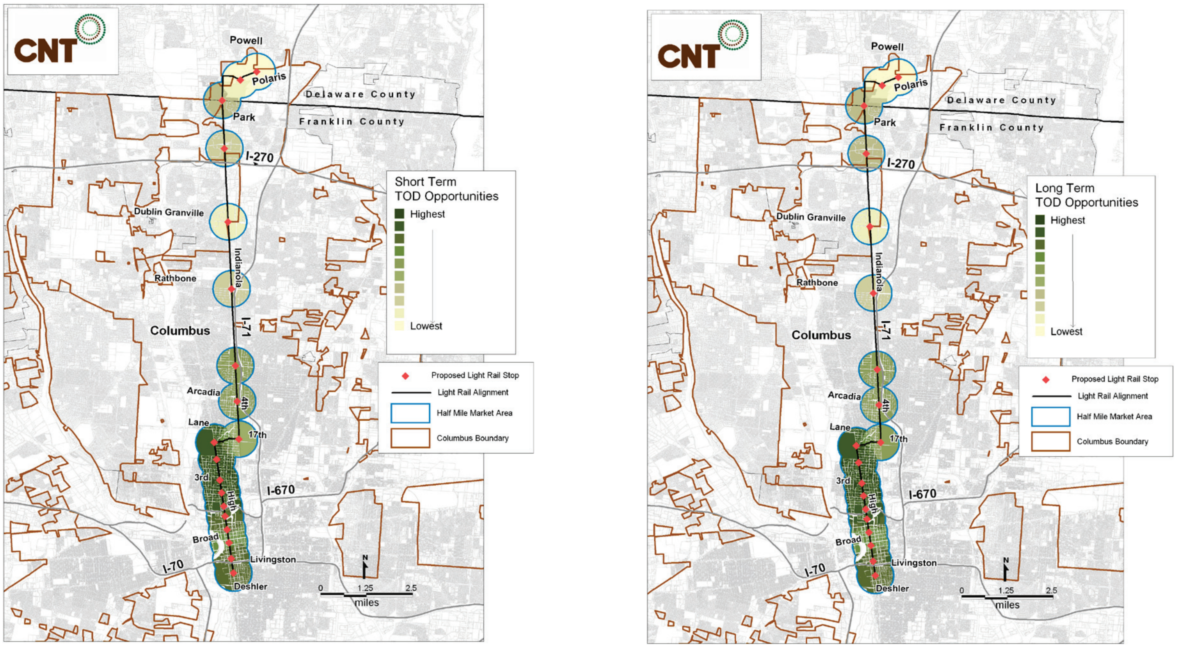
However, the COTA North Corridor would be just a first step towards increasing transit options, because other job centers would be disconnected from the system. Dublin, the Easton Town Center area, and the Northland neighborhood only receive minimal transit service, but these places would not gain any increased accessibility from the North Corridor. Additional routes to these centers would be a necessary step to bring regional jobs and Columbus residents closer together.

High Street Prime for Transit-Oriented Development (TOD)

The North Corridor would spur new development along the densest sections of High Street between German Village and OSU. The new service should make all of these neighborhoods more marketable, which will increase the price of new units and the number of sales every year. Increased sales make it easier for developers to build infill development given the high cost of construction, especially downtown. And because density makes urban neighborhoods more active and interesting places to live, the various neighborhoods along High Street would become more desirable to young professionals as their numbers grow.

Further north along the Norfolk Southern tracks, the proposed Alignment moves through Worthington and Polaris, but passes few major redevelopment opportunities. Only a few acres of underutilized lots and properties sit by many of these stations. While there is an abundance of parking around Polaris at the end of the alignment, little retail or housing demand exists to justify any additional development.

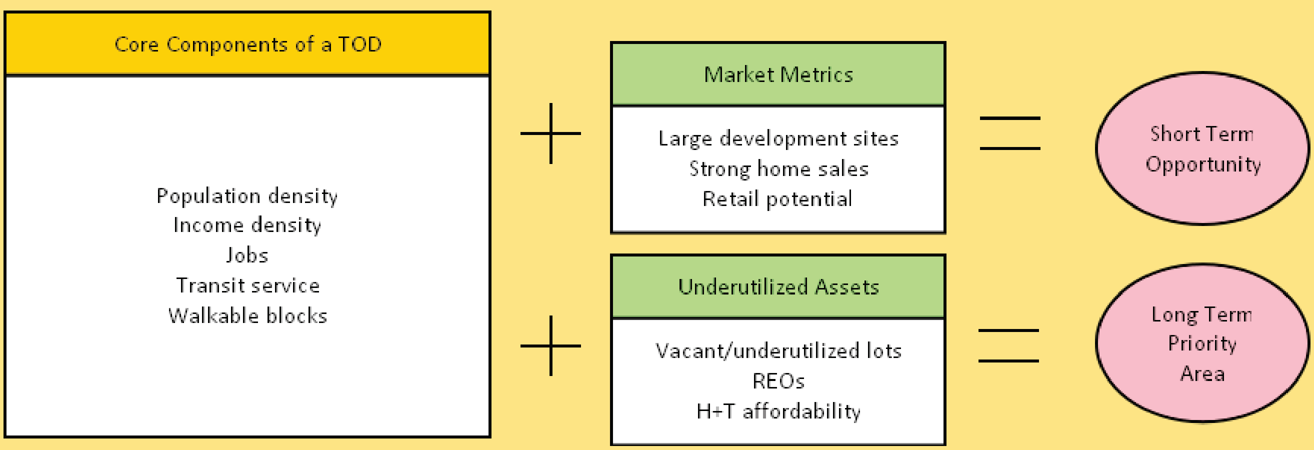
Short Term and Long Term TOD Opportunities along the Proposed North Corridor



Walkable blocks, development opportunities, and job access all make High Street a great market for TOD. There are over 143 acres of development opportunities and TOD would improve H+T affordability in the long term.

Scanning for Transit-Oriented Development

CNT's Optimizer tool ranked 19 half mile station areas to determine the strongest market 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.

In January of 2011, the Federal Transit System awarded COTA a $300,000 grant to study Bus Rapid Transit along Cleveland Avenue between downtown and Westerville. The timing of that announcement came too late for the inclusion of that alignment in this market scan.

Three Unique Markets from OSU to Downtown

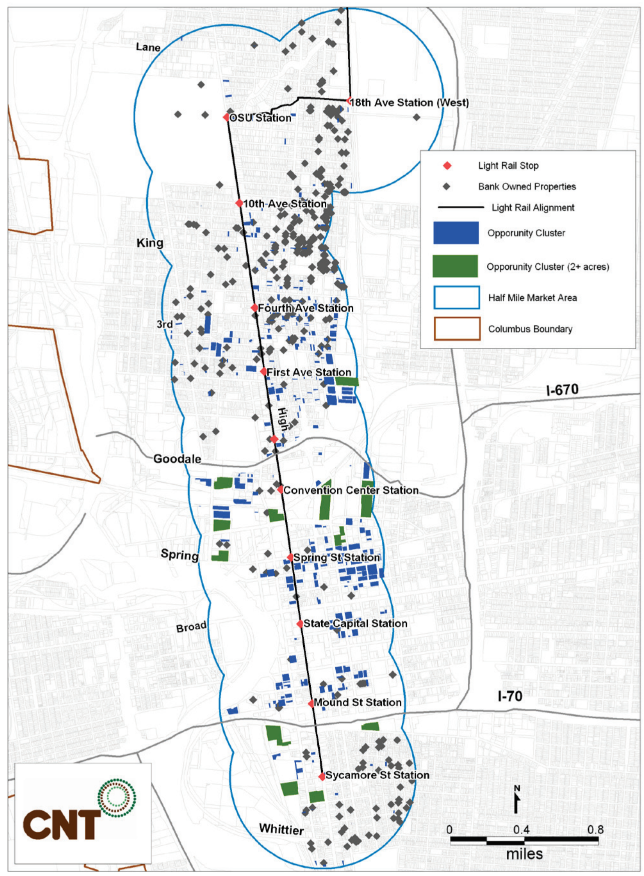
The opportunities for TOD along High Street have different characteristics, from their street grid configuration to their ability to absorb new housing units and retail space. Three zones of development epitomize the different kinds of opportunity for TOD in Columbus: 10th Avenue station near OSU, the Convention Center station, and Mound Street station Downtown.

➔ 10th Avenue station

The nature of High Street changes as it crosses the I-670 cap into the Short North and then continues to OSU. Large developments and offices give way to a smaller scale shopping districts and side streets lined by historic, handsome homes. There are only two vacant sites above two acres within walking distance of this station, but it is rich in smaller lots and underutilized historic buildings. Home loan amounts for recent property sales have averaged $183,298, which is lower than Downtown and the Short North, but high enough to support rehabilitation and infill development. The retail market could support many different kinds of new retail businesses, including hardware, sporting goods, a hobby store, and a small format grocery store.

The 10th Avenue station area is also highly walkable and full of amenities, so its average H+T costs of 31 percent make it an extremely affordable place to live. Over two hundred foreclosed properties are now bank-owned and could be assembled in anticipation of future service along the North line.

Development Opportunities along High Street



82 acres of parking lots Downtown could be redeveloped as TOD. Further north along High Street, the market could reabsorb numerous REOs as part of a long-term TOD strategy.

➔ Convention Center station

At the nexus of Downtown, the Arena District and High Street, the Convention Center station could also support additional transit-oriented development. The Arena District already stands as the city's biggest success story in urban investment, with 1.2 million square feet of office space, 300,000 square feet of retail, two arenas, and 500 units of residential housing built over the last ten years. Business travelers in and around the convention center can easily walk to local restaurants and businesses.

Nonetheless, 59 acres of land remain underdeveloped on the western end of the district. Home values have been strong enough to support new development. However, as with other stations Downtown, household density and buying power are too low to support much additional retail, although an opportunity could exist for a pharmacy or a few small clothing stores. Both the North Corridor and the proposed passenger rail station would add special value to this market. Given proper integration with High Street, passengers would spill into the Arena District and generate foot traffic for shops, restaurants, and the North Market.

➔ **Mound Street station**

This station sits on the southern edge of Downtown, about a half mile from the State Capitol.

Like most of Downtown Columbus, few people live within walking distance of it right now. Mayor Coleman's Downtown Plan has started to change that. Once virtually empty, the station area's residential population now exceeds 2,000 and housing values surpass $240,000 per unit.

Over 30 acres of parking lots remain empty, though, and a much higher residential population will be needed before retail development occurs. The COTA North Corridor would accelerate development of these lots.

This station area is easy to cover by foot, with an average block size of about 11 acres. Businesses in German Village are within ten minute walk and COTA offers bus connections to much of the region. Because of this unparalleled transit accessibility, combined H+T affordability costs sit at 34 percent. As more residents and businesses move into the neighborhood, it will become easier to walk to pick up a gallon of milk or a prescription at the pharmacy. The North Corridor would connect the neighborhood to enough jobs that a household here could downsize from two cars to one or even live without one if they so desired.

I-670 Cap:
Creating Value Through Livability

The High Street cap over I-670 shows how good connections between business districts drive economic development – and create new real estate value from underutilized infrastructure. Municipal staff, community members, state officials and a private developer all came together to transform the High Street overpass from a bridge that severed neighborhoods into storefronts that tie High Street together. The city and the Ohio Department of Transportation leveraged $1.6 million dollars into:

- *$7,800,000 in immediate private development where none existed before*
- *25,496 square feet of fully leased, high end retail space*

Easy connections and shared business between the Convention Center, Short North, and Arena District.

South Columbus is Ripe for Cargo-Oriented Development

Central Ohio's Intermodal Advantage

Gas prices are changing the dynamics of the freight industry. Right now, trucks deliver most goods. But companies in the 21st century expect timely delivery and competitive prices. With more trucks clogging the Interstate Highway System and fuel costs rising, businesses have been looking at other modes for moving freight. The nation's rail system 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.

As the economy has become more global in nature and freight has been flowing over greater distances, the energy savings of rail has become apparent. Shippers now carry a multitude of finished goods across the Pacific Ocean by water, move them onto trains in Los Angeles/Long Beach and other West Coast ports, and then carry them to intermodal terminals in the Midwest for distribution by truck. With the planned expansion of the Panama Canal, ports in Norfolk, VA, the New York metropolitan area, and Charleston, SC, will soon become new options to receive this traffic. In total, the Federal Highway Administration expects the total value of goods shipped this way to increase by 387 percent and the total volume to increase by 56 percent by 2035.

With two intermodal rail terminals, Columbus stands capture a larger share of this global supply chain. Norfolk Southern's recently completed Rickenbacker Intermodal Terminal connects the region by rail to Norfolk, the nation's third busiest deepwater port on the Atlantic Ocean. Its lift capacity, or the number of cargo containers it handles each year, is expected to reach 450,000 to make it the most trafficked rail terminal in all of Ohio. CSX operates another major rail yard, Buckeye Yard, 10 miles west of Downtown that handles 130,000 lifts per year, and plans to expand Parsons Yard for new traffic. With globalization continuing, fuel costs sure to increase, and Heartland Corridor and National Gateway improvements coming online, more freight can be expected to move through these facilities.

Columbus can capitalize on its intermodal advantage by encouraging cargo-oriented development (COD). CODs bring industrial and logistics businesses together by redeveloping vacant and underutilized land 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 unneeded 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.

Columbus is the terminus for two federal investments in freight – and stands to reap big economic benefits.

CSX National Gateway

- *$842M "bridge-and-tunnel" project will increase clearances in the Appalachian Mountains, allowing CSX to stack two containers on a single car*
- *Will dramatically increase the capacity of trains to move cargo from Atlantic deepwater ports to Columbus*
- *$98M in USDOT TIGER grants awarded in 2010*
- *$50M upgrade of CSX's Parsons Yard anticipated*

NS Heartland Corridor

- *$290M "bridge-and-tunnel" projects to increase clearances in Appalachian Mountains and allow double stacking of containers*
- *Will provide overnight service between Norfolk and Columbus and shorten the distance from 1,300 miles to 1,000 miles*
- *Widening of the Panama Canal will induce more freight to bypass Chicago and Los Angeles through Norfolk and Rickenbacker Global Logistics Park*

Cargo-Oriented Development Builds on Existing Assets

Rickenbacker Yard stands as a model for COD and the Columbus Regional Airport Authority has planned a multimodal campus that includes 1,500 acres of industrial land and that has already attracted $280 million in private investment. Regional growth in logistics and transportation-linked jobs more than likely flowed directly from this investment. However, these jobs sit miles from the urban core and they can be difficult to reach without a car. Closer to downtown Columbus, the city has a number of large vacant or underutilized sites that could host activities related to freight distribution.

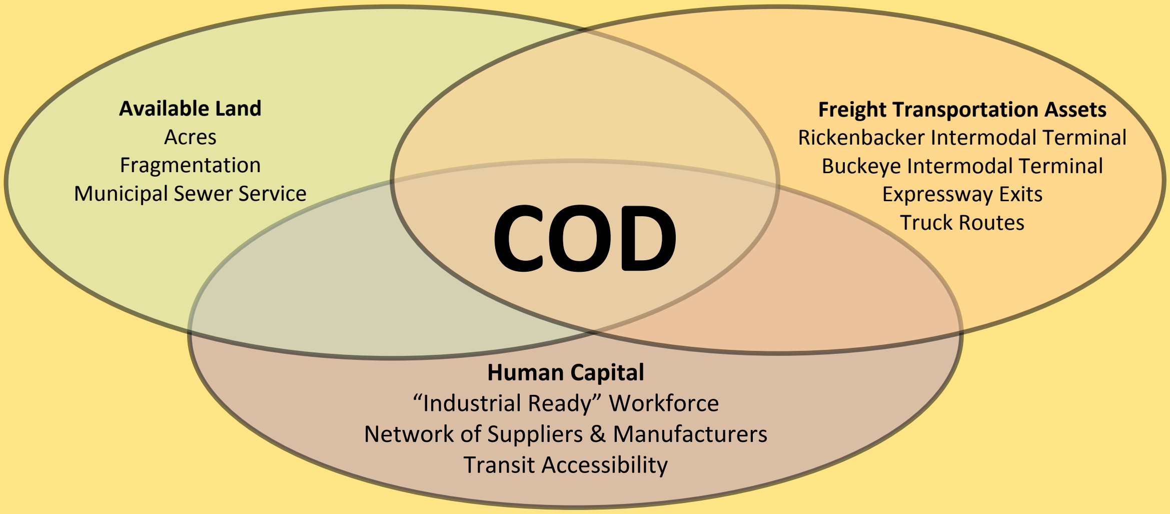
COD Assets Converge in South Columbus

Rickenbacker Yard and Buckeye Yard sit miles from one another on the southern and western edges of Franklin County. In between them, a rich network of infrastructure can move trucks to and from these yards to distribution facilities. A network of truck routes inside the I-270 Outerbelt connects to no less than 59 expressway exits, which provide access to Midwestern markets through the Interstate Highway System. These places are already equipped with water, sewer and roads. For all these reasons, 20 out of the top 25 COD sites in Columbus sit inside the I-270 loop.

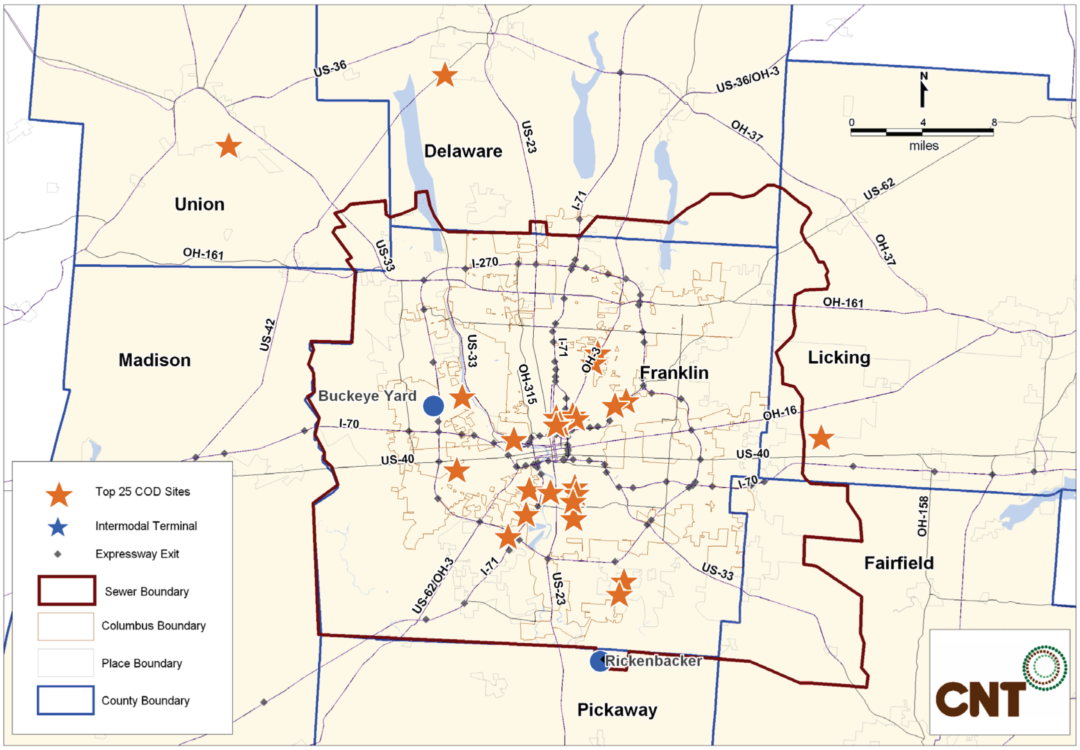
Scanning for Cargo-Oriented Development

CNT's Optimizer tool ranked 358 underutilized and vacant industrial sites in Central Ohio 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 access to intermodal facilities and 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.*



Top Cargo-Oriented Redevelopment Opportunities in Central Ohio



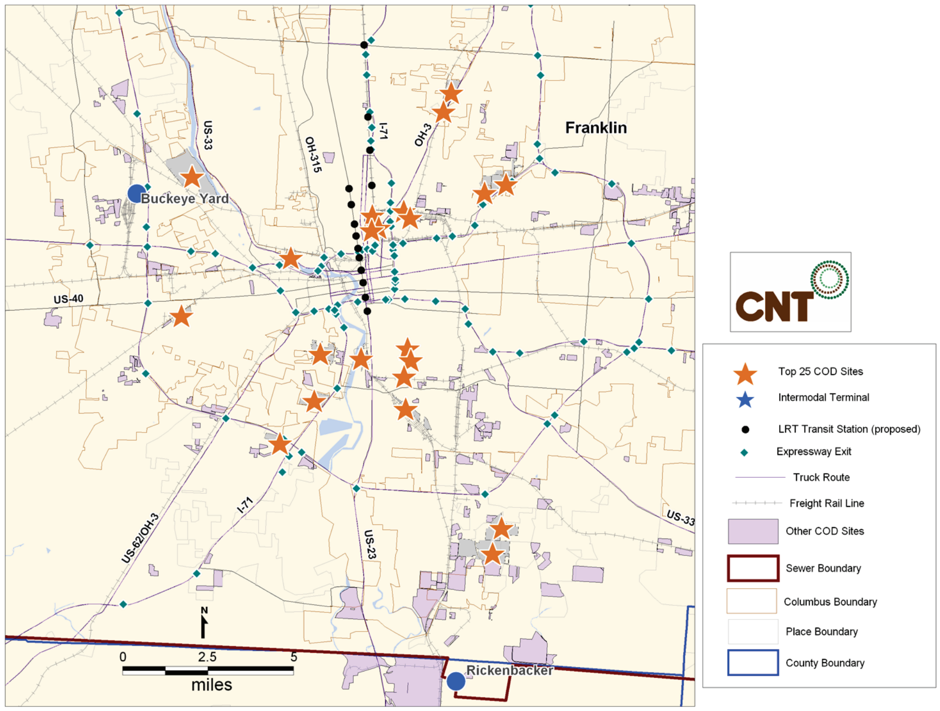
From the south side of Columbus, firms can access Rickenbacker and Buckeye Yards as well as a rich network of manufacturers, suppliers, and workforce.

Eight top-ranking COD sites sit south of I-70 and north of I-270, where several different advantages for transportation and logistic businesses converge. First, these sites are equidistant (ten miles) from both Buckeye and Rickenbacker Yards, each about ten miles away. If CSX moves forward with planned investments to Parsons Yard, intermodal access will be even easier. With so many expressway exits and truck routes nearby, shippers can easily move goods from a train at either yard to a facility for storage, unpacking, or an additional step in the manufacturing process. This “COD Zone” contains the largest supply chain of transportation and manufacturing businesses anywhere in Columbus, as measured by the number of jobs in those fields. These sites also scored highly on workforce characteristics, so COD in this area would bring manufacturing and transportation jobs and workers closer together.

Top 25 sites in Central Ohio for Cargo-Oriented Development

Rank	Town	Location	Acres	Owners
1	Columbus	Marikson Avenue and Champion Avenue	30.3	4
2	Columbus	Dublin Road and Trabue Road	596.1	1
3	Columbus	Westerville Road and Innis Road	127.6	21
4	Delaware	US Highway 42 and County Road 5	2098.5	48
5	Columbus	Cleveland Avenue and E. 5th Avenue	30.8	1
6	Pataskala	Between OH-16 and US 40	2249.6	41
7	Columbus	Wilson Road and Sullivan Avenue	55.5	4
8	Columbus	E. 5th Avenue and N. Grant Avenue	16.0	2
9	Columbus	Cleveland Avenue and Bonham Avenue	34.2	4
10	South Franklin County	Near Toy Road and Alum Creek Drive	501.4	8
11	Columbus	E. 2nd Avenue and N. 6th Street	13.3	1
12	Columbus	Cassady Avenue and I-670	119.4	22
13	Columbus	Westerville Road and Innis Road	38.5	13
14	Columbus	Jenkins Avenue and Champion Avenue	11.1	2
15	Marysville	South of Union County Airport	1182.5	14
16	Columbus	Frank Road and I-71	139.4	2
17	Columbus	Hamilton Avenue and Stimmel Road	187.5	11
18	Columbus	Groveport Road and Wilson Avenue	104.9	2
19	Columbus	Cassady Avenue and I-670	180.2	48
20	Columbus	Haul Road near Scioto River	55.9	4
21	South Franklin County	I-270 and I-70	88.9	2
22	Columbus	Dublin Road and Grandview Avenue	34.4	3
23	Columbus	E. 5th Avenue and NS Tracks	14.3	1
24	Columbus	Marion Road near Parsons Avenue	27.4	2
25	South Franklin County	Near Toy Road and Alum Creek Drive	256.5	2

Top COD Sites in the South COD Zone



COD sites in the "South COD Zone" can access two yards, the interstate highway system, other businesses, and an industrial-ready workforce through a rich network of truck routes and rail lines.

Each of these sites has its own unique advantages and disadvantages. For example, a 30 acre site to the southeast of Downtown, near the intersection of Markison Avenue and Champion Avenue, is equidistant to Buckeye Yard and Rickenbacker Yard and closer to complementary businesses than any other opportunity. However, like the existing logistics facilities around the Rickenbacker terminal, it would not be easy for workers to reach it by transit. Across Jenkins Avenue sits an 11 acre site within walking distance of a bus line. Though small, it is about a mile from an expressway near many existing manufacturing businesses and may be best suited as an infill site. A 27 acre site along East Woodrow Avenue is directly connected to Rickenbacker by a truck route, but is further from I-71 than other opportunities. Still, they have one thing in common – great access to and from Rickenbacker, Buckeye, and Parsons Yards, which receive goods by rail from all over the country.

Public action will be needed to redevelop these properties and shepherd them through the development pipeline. Many different owners hold title to different parcels on these COD sites, so a lengthy period of negotiations will be necessary to reassemble them back into one piece. In the most extreme case, a COD site along Cassady Avenue near I-670 is divided among 48 different property owners. It could also take several years and hundreds of thousands of dollars to clean them up. For a developer, time is money and investors tend to find such costs difficult to overcome. If the public sector assembled parcels using existing land banks and cleaned them up using USEPA remediation funds, these COD sites could attract private investment to stimulate the local economy with millions in investment and steady, well-paying jobs.

A Smart Growth Strategy for Central Ohio

To create this new, more efficient paradigm of development in Columbus, stakeholders in regional growth should pursue five 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. **Construct the COTA North Corridor and the Columbus Avenue BRT Alignment** to spur economic development on High Street and integrate Downtown with job centers along the Outerbelt.
3. **Strengthen the economy by linking people and jobs through transit** by bringing new jobs near transit and new transportation options to existing employment centers.
4. **Target TOD to High Street between Downtown and OSU** through a coordinated private and public effort.
5. **Mobilize human capital and freight towards Cargo-Oriented Development** through brownfield remediation and land assembly.

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. Excessive household debt has also slowed the region's economic recovery. Central Ohio must concentrate its public resources in affordable H+T neighborhoods to alleviate household exposure to mounting transportation costs and inescapable debt. MORPC and municipal governments should:

Set goals for regional development around location efficiency. MORPC adopt a goal in future regional planning to focus new development in neighborhoods with transportation choice so that 50 percent of household and employment growth is captured in existing and new transit corridors.

Track success in sustainable development. MORPC should track the number and percentage of jobs and dwelling units within a half mile of proposed fixed guideway stations and a quarter 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.

Create a Livable Communities Fund to help create new H+T communities. MORPC should administer this fund for planning and implementation in support of COD and TOD with the densities, mix of uses, station relocations, and pedestrian design that lead to greater affordability and efficiency. These merit-based resources should fund community planning, staff capacity, and capital improvements to sidewalks, transit, and bike lanes. These resources will allow predominantly low density suburban communities to diversify their housing stock and remain attractive places to live. Model initiatives like the Transportation for Livable Communities program run in the San Francisco Bay Area by the Metropolitan Transportation Commission utilize federal Congestion Mitigation and Air Quality Improvement dollars for this purpose.

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 near transit options that exceed the affordable housing requirement. Suburban communities that currently restrict mixed-use and multifamily housing should update their zoning code.

PLAN AROUND LIFELONG COMMUNITIES. "Lifelong communities" are cities, villages, and neighborhoods accessible to all people, regardless of age or ability. These places give their residents a variety of transportation choices to access places, services, and jobs. Their diverse housing stock allows them to attract a variety of demographics and allow residents to age in place. MORPC should lead an assessment effort to inventory cities based on land use, housing, transportation options, employment, and services.

LAUNCH CAR SHARING AND BIKE SHARING PROGRAMS. Members of car and bike sharing programs pay to use these modes by the hour. By offering the option these modes for errands and other trips beyond the reach of transit, these programs will allow Columbus residents to downsize from two or three cars – saving money without sacrificing accessibility. A new non-profit organization should establish these services and ensure that all new cars and bikes are transit accessible.

Construct North Corridor and Study Additional Alignments

The proposed COTA North Corridor would spur economic development on High Street and link together the state's second largest concentration of jobs with additional employment centers on the Outerbelt. This alignment should be the centerpiece of an urban growth strategy in Central Ohio. In January 2011, the FTA awarded COTA a grant to study an additional alignment for BRT along Cleveland Avenue. COTA should reexamine plans for the route and study additional fixed guideway service by:

QUANTIFY THE ECONOMIC IMPACT OF THE NORTH CORRIDOR. A transit alignment along High Street will spark millions of dollars in new real estate investment. As new residents move in and save money on their transportation costs, more money will be spent at local businesses. A study should quantify the impacts of this investment in real estate development and consumer cost savings to generate support from major businesses and the community at large.

UPDATE THE ALTERNATIVES ANALYSIS FOR THE NORTH CORRIDOR TO INCLUDE NEW FTA SCORING CRITERIA. The Federal Transit Administration has updated its scoring criteria to consider impacts on economic development and livability. Because the North Corridor would help so many neighborhoods along High Street achieve their redevelopment potential, COTA and its Board should revisit the Alternatives Analysis using these criteria.

SHEPHERD THE NORTH CORRIDOR THROUGH THE NEW STARTS PROCESS. Once the new AA has been completed, COTA can reverse its No Build Decision and move the potential alignment back into New Starts. Additionally, a state match through the TRAC program would make the alignment more competitive in the New Starts process against other transit projects across the country.

STUDY POSSIBLE TRANSIT SERVICE TO ADDITIONAL JOB CENTERS. Many of the region's professional services and logistics jobs are located outside the Outerbelt in places like Dublin, Easton Town Center and western Columbus. COTA, MORPC, and the City of Columbus should consider additional rail alignments between Downtown and these three centers after the North Corridor has been resubmitted into the New Starts pipeline.

Score the Cleveland Avenue BRT alignment for its impacts on affordability and job access. The Federal Transit Administration recently awarded COTA $300,000 to study the possibility of Bus Rapid Transit service between downtown and Westerville along Cleveland Avenue. This study should consider the total number of jobs the alignment would connect as well as the number of H+T affordable neighborhoods it would serve.

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, COTA and the business community should:

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 need to be accessible. Local governments and the Ohio Department of Development should collaborate to ensure every single job training site is within ¼ mile of a bus route.

Require Columbus 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, Franklin 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.

Provide Access to High Street Incubator Space. Columbus ranks low on measures of innovation, but new incubator space between OSU and Grandview will help the region leverage its research assets into new growth. COTA and the city of Columbus should ensure consistent transit service and pedestrian between this incubator space and the urban environment along High Street.

Diversify the Region's Housing Choices through TOD

While the region has constructed some multifamily housing, it can attract young professionals and baby boomers in the form of TOD. The High Street alignment between German Village and OSU holds strong promise for mixed-use development, but public investment in transit and livability will ensure that potential is met. The recent award for BRT along Cleveland Avenue could be a second opportunity. 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. Communities served by the North Corridor and the Cleveland Avenue BRT line 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 planned transit stations. Mixed-use developments should be allowed around planned stations for the North Corridor and the Cleveland Avenue BRT line. Residential and commercial uses should be allowed in the same structure, rather than be segregated in single use districts. Parking requirements should be reduced or eliminated entirely.

Strategically leverage CDBG, energy retrofits, and other federal resources around station areas. Federal resources in housing can support affordable investment around transit. To maximize local and federal investments, Columbus should work to ensure that all federal resources for its housing stock are leveraged with existing TOD and land banking initiatives.

DEVELOP STUDENT HOUSING ALONG HIGH STREET AND DOWNTOWN. The private market has already responded to recent OSU investments along High Street. Additional student housing along High Street would bring more activity to the streets and generate foot traffic for businesses, especially Downtown.

FILL PRO FORMA GAPS FOR STRATEGIC DEVELOPMENTS NEAR TRANSIT. Because of the cost of construction for urban infill, Columbus developers often struggle to meet the middle segment of the urban market. That market includes young professionals 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.

SUBSIDIZING RETAIL AS A LOSS LEADER. An active street life draws residents to urban areas, especially downtowns, but the customer base within walking distance of retail districts is still small. Until it grows, developers should subsidize their space at lower rates to attract new residents to the area. This will make residential units more desirable.

Strengthen Columbus' Logistics Advantage with COD

Two Class I railroads connect Columbus with water ports on the Atlantic. Coordinated public and private action can bring additional impacts to the region through redevelopment. Brownfield contamination and land fragmentation often impede industrial sites, but a coordinated effort for COD predevelopment can create investment and new jobs. To achieve this, the public and private sectors should:

ESTABLISH A DIVISION FOR CARGO-ORIENTED DEVELOPMENT IN FRANKLIN COUNTY. Urban industrial redevelopment is a multiyear process that requires land assembly, environmental remediation, marketing, and new capital investments. The Franklin County Department of Economic Development should dedicate staff capacity to work with local and county planners to move the strongest COD sites south of I-70 and north of I-270 through the predevelopment process. This division should develop partnerships with private investors and logistics developers to redevelop assembled land into new warehousing and manufacturing space.

ADMINSTER A REVOLVING LOAN FUND FOR LAND ACQUISITION. Because urban sites cannot compete with agricultural properties made valuable by highways, land assembly remains the single biggest barrier to urban redevelopment. The Franklin County COD division and the Ohio Department of Development should work together to create a revolving loan fund with a dedicated revenue stream to allow municipalities to assemble small parcels into redevelopment opportunities and package them together as major redevelopment opportunities.

ASSEMBLE LAND FOR SITES ABOVE 20 ACRES IN SIZE IN COD ZONE. Potential COD sites south of I-70 and north of I-270 are divided among many different owners. The Franklin County COD division and the Franklin County Land Bank Program should work together to assemble small parcels and package them together as major redevelopment opportunities.

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.

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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-GO™ 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.

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