

CTS RESEARCH SUMMARY

MAXIMIZING THE BENEFITS OF TRANSITWAY INVESTMENT

Research suggests integrating transit planning with land use and economic development maximizes the return on transitway investment

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Research report

This research summary is based on the study's final research report—*Enterprising Twin Cities Transitways: Regional Competitiveness and Social Equity in an Integrated Land Use and Transit Context* (CTS 12-16). It is available at cts.umn.edu/Publications/ResearchReports.

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Study summary

The Twin Cities region is in the midst of a transit renaissance. In the past decade, light rail, commuter rail, and bus rapid transit services have improved transit links between the central cities and suburbs. To accommodate projected population and employment growth in the seven-county Twin Cities region, a network of 14 transitways is planned for 2030 (see Figure 1). How can the region ensure the greatest return on this investment, improve job accessibility, and strengthen the region's economic future? University of Minnesota researchers set out to find the answer.

"Locating new jobs near transitways is especially important for maximizing the positive impact of current and future Twin Cities transitways."

– Yingling Fan, Assistant Professor,
Humphrey School of Public Affairs

Fast facts

- Investing in a regional-scale network of premium transit services is important for the region's future economic resilience and expanded job access.
- Integrating transit planning with land use and economic development maximizes the return on transitway investment.
- Locating future development inside the I-494/I-694 loop will create additional accessibility to regional jobs beyond current projections, while locating development along transitways provides even greater benefits. In both cases, the population with the greatest need receives the greatest benefits.
- Locating new jobs near transitways produces larger increases in accessibility than locating new housing near transitways, with the greatest accessibility benefits realized by balancing both.
- Regional economic competitiveness is increased with stronger coordination of transit service to key competitive industry clusters, particularly those with a preference for locating in more compact areas.

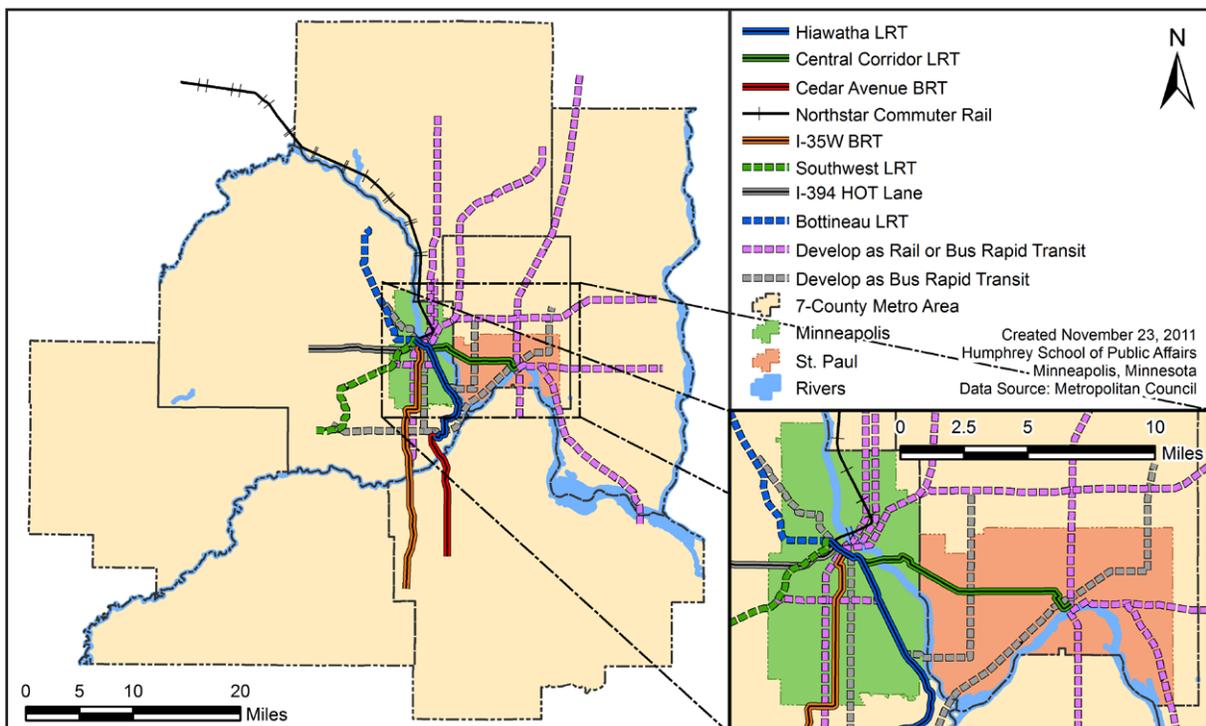


Figure 1: Planned 2030 transitways

Economic competitiveness requires connections and accessibility. For a region to be economically competitive, employees with the right skills need to be able to reach appropriate employers in a reasonable time and at an affordable cost. As a result, understanding how to maximize the benefits of transitways requires looking at them in relation to the homes and jobs they serve.

The Twin Cities region includes a mix of small, medium, and large employers and serves as headquarters for more than 50 of the nation's largest companies, according to Forbes and Fortune. To determine how well transitways connect workers to job opportunities—and employers to the labor force—researchers first identified where the region's greatest opportunities exist. The first step in this process was mapping competitive clusters—geographic groupings of interconnected businesses and organizations that drive regional employment, pay higher wages, and have faster wage growth.

The research team found five basic clusters:

- medical equipment and supplies manufacturing (e.g., Medtronic, Boston Scientific)
- management of companies and enterprises (e.g., Cargill, Target Corporation)
- finance and insurance (e.g., Travelers, U.S. Bank)
- book publishers and printing industries (e.g., Thomson-Reuters, Deluxe)
- lessors of non-financial assets (companies primarily engaged in assigning rights to assets, such as patents, trademarks, brand names, and/or franchise agreements; examples are Dairy Queen and Supervalu)

The team found significant variation in the size and location of these clusters, as well as variation in how well these clusters are served by the current transit system.

To determine how the planned transitway investments could yield maximum accessibility benefits and economic growth, the research team then developed and analyzed alternative land-development strategies—and identified the most promising development solutions.

“Facilities and HR managers take note: Yingling Fan’s research has revealed a significant opportunity for business. By locating jobs on or near transitways, businesses gain a significant competitive advantage in accessing the largest practical labor pool possible – an advantage that will only grow sharply as competition for employees increases due to demographic shifts. These findings underscore the importance of targeted communications and policies directed at facility site selectors and close collaboration between transportation, housing, and business associations in order to realize the greatest economic and community benefits from transit investments.”

– Jay Cowles, Co-Chair, The Itasca Project
Transportation Initiative



How well does the current transit system connect workers to jobs?

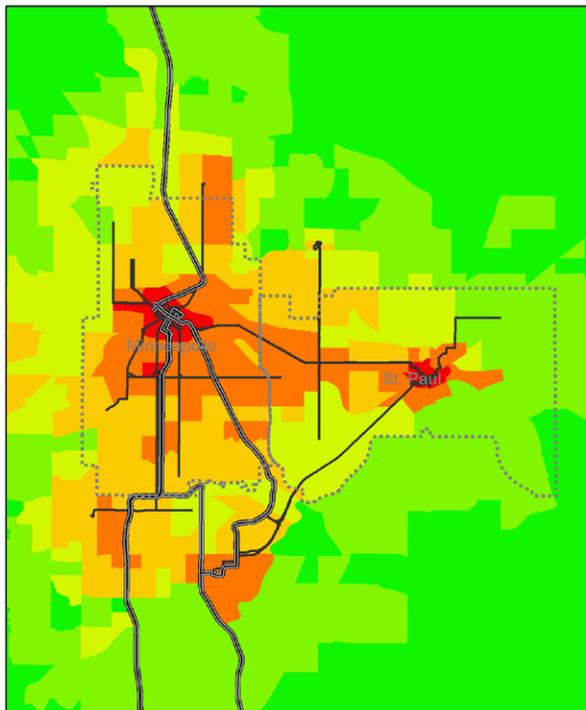
Accessibility relates to the ease of reaching destinations and the opportunities available at those destinations. In their analysis, the researchers found that, in general, jobs have decentralized. Today, only 29.9% of the region's workers commute to a job in the central core. During the past several decades, employment clusters have spread across the region—including to many areas not well served by transit.

For many people, commuting by automobile is not only a choice but a necessity given the lack of efficient transit options. Between 2005 and 2009, public transportation use among Twin Cities workers age 16 years and older was at 4.4% for the region

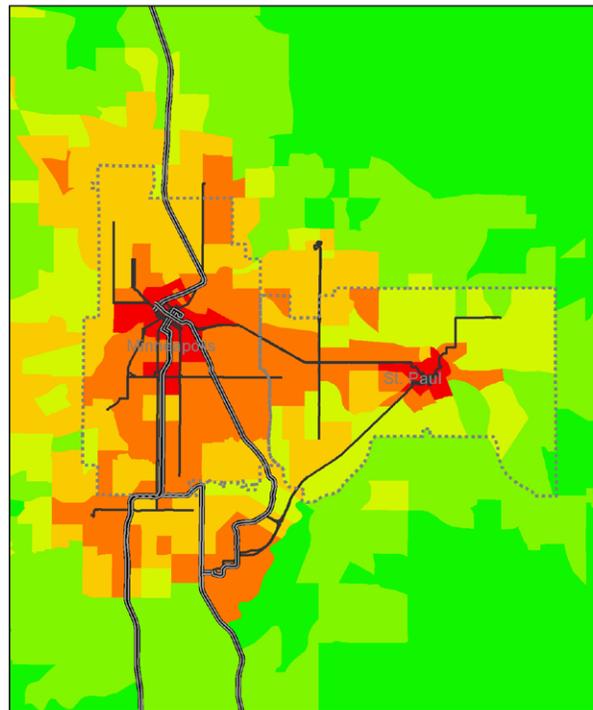
overall and higher in the central cities (9.0% for St. Paul and 13.5% for Minneapolis). And from 1982 to 2009, traffic congestion increased seven-fold, with Twin Cities workers spending the equivalent of one work week a year (43 hours) in traffic.

While jobs in the central cities are currently well served by transit, suburban job centers are largely not. The 2030 transitway network is anticipated to significantly increase the number of jobs that can be reached by workers of all income levels. Figure 2 shows the increase in transit accessibility throughout the region. The expanded opportunities for northeast Minneapolis suburbs are notable.

2010 Job Accessibility by Transit



2030 Job Accessibility by Transit



Legend

Number of jobs accessible within 30 minutes of transit travel

0 - 50000	250001 - 350000
50001 - 150000	350001 - 550000
150001 - 250000	> 550001



0 3 6 12 Miles

Figure 2: Accessibility by transit to all jobs within 30 minutes of travel in 2010 (left) and 2030 (right)

In its analysis of current transit accessibility for competitive cluster jobs, the research team found some clusters are much more accessible than others. For example, transit access to medical manufacturing jobs is low, while access to office-centered employers, such as finance and insurance, is higher. This reflects location decisions by some employers to move to suburban areas where land costs are generally lower, coupled with the unique needs of certain types of manufacturing for moving goods and services.

The location of jobs is important, but so too is the quality and reliability of transit service to connect workers to these jobs. For this reason, the research team examined not only the presence of transit but the quality of the transit available when considering accessibility. How frequent is service? How many of the 1,395,383 jobs and 110,325 firms can be accessed along transit corridors within a 30- or 60-minute commute?

Their analysis found that while 80% of jobs are located within a half-mile of transit stops or stations, the percentage with high-frequency transit drops considerably to 27.4%. From various metro locations, **on average, only 4.7% of all metro jobs are accessible by current transit services within 30 minutes, and 7.1% are accessible within 60 minutes.** For medical manufacturing jobs, the percentages are even lower: 2.4% of jobs are accessible by current transit services within 30 minutes, and 3.4% within 60 minutes. As shown in Figure 3, jobs in other clusters are more transit accessible.

“Currently we’re providing targeted incentives to individual businesses with a focus on job count, but we’re not looking enough at how it impacts the investments we’re making in things like transitways. We need to find ways to lower the cost barriers and improve transportation infrastructure to central locations for employers.”

– Dena Belzer, President, Strategic Economics

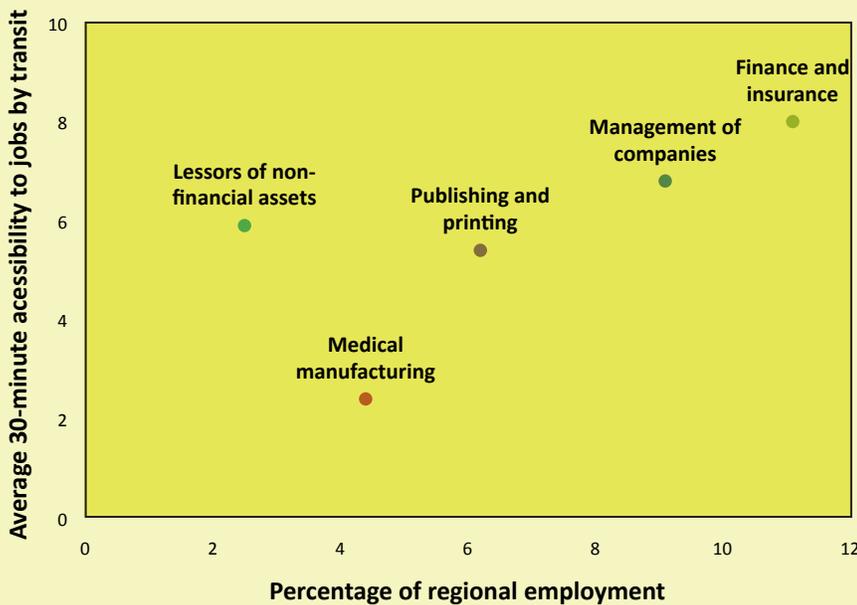


Figure 3: Basic cluster jobs as a percentage of all metro jobs and relative accessibility by transit

Average accessibility is defined as the average percentage of jobs in the cluster that are accessible from the region’s census blocks within 30 minutes of transit travel.

“This research confirms the value of a multimodal transportation system in maximizing access to jobs. It further demonstrates the benefit of locating jobs and transitways in close proximity to improve the economic competitiveness of a region. It provides data that supports broadening the focus of transit-oriented development to include more emphasis on jobs rather than its traditional focus on mixed-use housing.”

– Tim Henkel, Assistant Commissioner,
Minnesota Department of Transportation

Researchers discovered the current transit system offers the greatest access to those with the greatest need—low-income or transit-dependent households. Areas of weakness are locations outside the downtown areas and some inner-ring suburban locations with some of the region’s lowest-income populations. Traditionally, low-income and minority households have located within Minneapolis and St. Paul neighborhoods, but this trend is rapidly changing. Connecting low-income workers to more regional jobs in competitive cluster industries provides them with a greater number of job opportunities with higher wage potential.

The research also found that Twin Cities employers’ access to the labor force is lower than workers’ access to jobs, reflecting the relatively low density and dispersion of housing in the region. For employers, a top human resource concern remains workforce stability—an issue compounded by inadequate job access. Employers stand to benefit from an expanded regional transit network that improves their access to a larger labor pool.

The limited job accessibility by transit has implications for highway traffic congestion. Traffic congestion costs both motorists and employers—and expanded transit may provide traffic relief that can lead to additional economic competitiveness benefits.



“How do we persuade employers that it is in their interest and the community’s interest to locate close to transitways? That’s a big challenge to think about, to work on, and engage with employers, large and small. It’s important that transportation decisions and plans always have the lens of development and housing attached to them very, very closely.”

– Patrick Born, Regional Administrator,
Metropolitan Council

How can the benefit of planned transit investment be maximized?

To determine how future transitway plans could affect economic growth in the Twin Cities region, the research team developed and analyzed scenarios based on the Metropolitan Council's 2030 population and land-use forecasts: a baseline scenario with the Metropolitan Council's jobs and housing development forecasts unchanged, and eight alternative scenarios with either jobs or housing development patterns, or both jobs and housing development patterns, deviated from the Metropolitan Council's forecasts (see Table 1).

Key findings

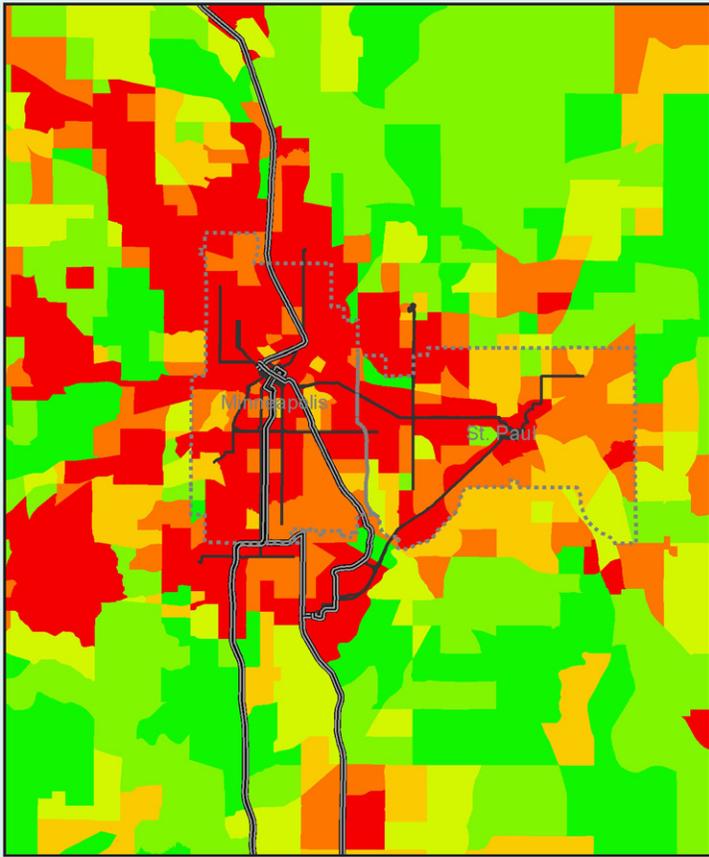
- The planned future transitway network will improve accessibility to jobs in competitive clusters and to all other jobs in many locations. With the continued regional growth projected by the Metropolitan Council, **the planned future transitway network is estimated to increase the number of jobs accessible within 30 minutes of transit travel by an average individual by 7%**—from 117,611 to 126,419 (8,808 jobs).
- Alternative land development scenarios could further improve accessibility gains of planned transitways. The research team found an additional 7% increase in job accessibility on top of the 7% increase in the base 2030 estimates in a scenario targeting housing and jobs within the 14 transitway corridors.
- Locating future housing and job development within the I-494/I-694 loop will create additional regional accessibility to jobs. Targeted development within the loop is associated with a 2.7% increase in job accessibility beyond the base 2030 estimates (see the note under Table 1).
- A targeted concentration of development near transitway stations leads to greater gains in job accessibility; these gains benefit low-income populations most (see Figure 4). Areas in the center of the metropolitan area, where many low-income workers currently live, will see larger gains in job accessibility. Suburban areas near transitway stops will also see significant increases.
- Locating jobs near transitway stations leads to larger increases in accessibility than locating housing near transitway stations. Focusing housing near transitways but not jobs (leaving job growth and distribution the same as the Metropolitan Council's forecasts) would increase accessibility by 2.2%, or 2,800 jobs—half of the additional jobs that would be accessible if instead new employment opportunities were focused on the transitway corridors (4.5%, 5,700 jobs).

Table 1: Alternative jobs and housing development scenarios

2030 Scenario Analysis Combinations				
		Employment Scenarios		
		Focusing development near transitways	Metropolitan Council 2030 forecasts	Growth at fringe
Population Scenarios	Focusing development near transitways	6.90%	2.20%	0.89%
	Metropolitan Council 2030 forecasts	4.50%	Base case 126,419	-1.29%
	Growth at fringe	4.30%	-0.18%	-1.47%

*Note: Non-transitway-focused development within the I-494/I-694 loop is only associated with a +2.74% increase.

The table presents the percentage increase in average regional job accessibility measured by the total number of jobs accessible within 30 minutes of transit travel by an average individual in the Twin Cities metropolitan region.



Legend

Accessibility differences between 2010 and 2030



Figure 4: Changes in job accessibility at various locations in the region associated with targeted jobs and housing development near transitways



"This study shows transit investment is a big driver of employment and where employers invest, even though the region has focused on housing and retail as the primary means of attracting jobs in the past. The test will be how to take the findings of this study and transfer that into real investment along the Central Corridor."

– Jim McDonough, Chair,
Ramsey County Regional Rail Authority

Conclusions and policy implications

This study provides several important insights for integrating economic development and land-use policies with planned transitway investment to increase equity, foster further economic growth, and provide greater overall return on investment.

1. *Use transitways as a guide for development and collaboration.* Locating more of the region's future jobs near transit and linking existing job centers with frequent and reliable transit will multiply the return on the transit investment, increase the value of land within close proximity of transitways, and expand the tax base. These benefits accrue to both those who take transit and those who do not. Suburban communities may need additional policies or infrastructure investments to ensure that land near transit stations can be developed as job sites or housing. Homeowners and employers could benefit from better information on the true costs and trade-offs of decisions about where they live or locate their business. Collaboration between and across local chambers of commerce, city and county planning and transportation departments, housing authorities, health care providers, school boards, and other key stakeholders is necessary to develop long-term strategies that balance the different land-use and economic development needs of the 14 transitways, and to ensure regional equity goals are simultaneously achieved.
2. *Focus on jobs.* Not all development has the same impact on accessibility—**placing new jobs near transitways creates greater accessibility gains than placing new housing near them.** Targeted investments and economic development incentives are needed to encourage employers to choose areas well served by transit when making location decisions. For example, incentive packages used to attract businesses could include considerations for transit such as employee transit passes. Workforce development programs could also be strengthened by efforts that match employer needs and transit service. Regional marketing strategies to promote the region or individual jurisdictions should spotlight access to transit and its benefits in reaching an expanded labor pool and additional customers.
3. *Recognize that not all jobs have the same needs for transit access.* Policies that encourage job creation near transitways should take into account the unique location patterns and preferences of the region's competitive clusters. Different opportunities exist for locating these near transit. For instance, the market for transit use already exists for employers in the finance, insurance, and related sectors. These sectors may be well suited for incentives to attract and expand business opportunities within transitway corridors. Sites targeted for redevelopment adjacent to transit could be marketed and prioritized to such employers. When updating land-use policies around existing and proposed transit stations, local planners should ensure there are opportunities for both jobs and housing. Not every station needs to have both, and some stations may be better suited to one or the other.
4. *Consider building regional transit faster.* The research shows that public investment in transit is a key generator of economic development. Increasingly, employers and prospective employees are making location decisions based on quality-of-life factors, including the presence of a strong regional transit system. Higher transit accessibility provides businesses with access to a wider labor pool and enables employers to attract workers with better skills. The Twin Cities has a vision for expanded transit, but at the current rate of implementation it may be another generation before it is operational. Accelerating the build-out of the system and prioritizing where it will do the most good matters to the region's economic competitiveness in the global marketplace.

"What jumped out to me was the concept of spatial economic incentives. Companies' decisions to locate within the inner metro are not as intuitive as we would love them to be. Spatial economic development incentives need to be looked at in a very strong way."

– Matt Kramer, President,
St. Paul Chamber of Commerce

5. *Take a closer look at disadvantaged groups.* Increased access to a larger proportion of regional jobs is a key strategy for improving economic opportunities for low-income families. Though lower-income families and individuals generally enjoy high levels of transit accessibility, this is largely due to residential concentration near downtowns. Additional policy efforts are needed to increase job access for this population and ensure job and housing opportunities exist for these households within suburban communities. This also benefits employers by improving access to a wider set of worker abilities. However, transit access alone may not be sufficient. Strategies to support minority-owned businesses, small-business entrepreneurship, job training, and location of support services (such as day care and schools) within the transitway corridors should also be pursued to maximize economic development opportunities throughout the region.

Related research

This research builds on work conducted under the Transitway Impacts Research Program. The program was launched in 2006 by the Hennepin County-University of Minnesota partnership and has grown to include a mix of funding partners and program supporters. More about the program is online at cts.umn.edu/Research/featured/transitways.

6. *Pay close attention to housing strategies.* This research has implications for the increased demand for and marketability of mixed-income neighborhoods along transitways. **An expanded regional transit network provides improved access for lower-income households and better access to destinations and connections for middle- and upper-income households.** Regional transit investments will also lower transportation costs for individual households. Return from the planned transitway investments can only be maximized with increased opportunities in both housing and employment near transitways. Policies should be shaped to encourage developments near transit that include a mix of housing and retail with other employers such as dentists and doctors, technology firms, and finance or insurance firms. Creating neighborhoods where people can live, work, and shop will help the Twin Cities area maintain its high quality of life.

“This research reinforces the notion that housing solutions are not enough. Maximizing opportunity for low-income residents demands a disruption to the status quo. The days of building housing near transit without a jobs strategy are over. The work ahead will require leaders in the Twin Cities to engage the private sector, including anchor institutions and major employers.”

– Marian Urquilla,
Director, Program Strategies, Living Cities

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