

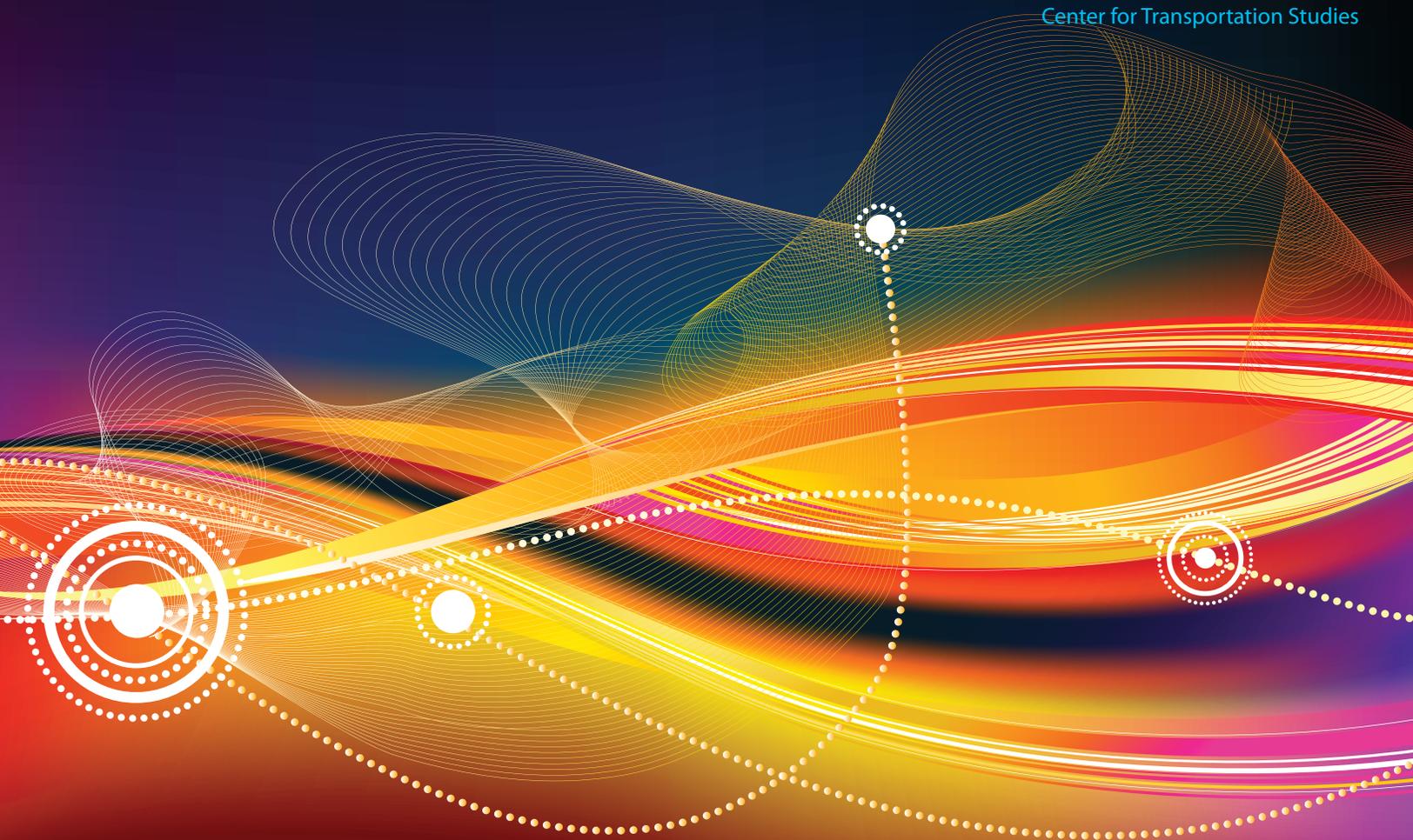
TRANSFORMING COMMUNITY

TRANSITWAY IMPACTS RESEARCH PROGRAM

RESEARCH SYNTHESIS

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Preface

The Transitway Impacts Research Program (TIRP) was launched in 2006 by the Hennepin–University Partnership to answer questions about the economic, travel, and community impacts of transitway corridors in the Twin Cities metropolitan area. TIRP has grown to include a mix of state, regional, and local jurisdictional partners.

The program creates knowledge and information needed to improve planning and decision making for transitway expansion. It also helps educate legislators, agency leaders and staff, and the University research community about current issues, innovations, and trends pertaining to transitways. In addition, the program serves as a national model of interjurisdictional collaboration between government and academia for transitway research, education, and outreach.

TIRP has funded a diverse body of research, including extensive modeling, data analysis, and numerous surveys of residents, transit riders, and business owners both within transit corridors and from the broader region. This document synthesizes the findings of seven TIRP research projects completed to date. The document also incorporates findings from two related research projects conducted by University of Minnesota researchers. (See page 16 for a bibliography.)

Acknowledgments

TIRP Funding and Program Support

Numerous program partners have provided TIRP funding and program support. These include Anoka County, the Center for Transportation Studies, the Center for Urban and Regional Affairs, the Central Corridor Funders Collaborative, the Cities of Bloomington, Minneapolis, and Saint Paul, Dakota County, the Federal Transit Administration, Hennepin County and the Hennepin–University Partnership, the Humphrey School of Public Affairs State and Local Policy Program, the Itasca Project, the McKnight Foundation, Metro Transit, the Metropolitan Council, the Minnesota Department of Transportation, Ramsey County, the University Metropolitan Consortium, and Washington County.

Appreciation is extended to the TIRP Program Management Team and Technical Advisory Group members. They contributed their time and knowledge, both of which contributed greatly to the quality of the research, and helped share findings with broader regional partners. Members who served during 2013 are shown below.

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Other Research Sponsors

TIRP research provided the foundation for University of Minnesota researchers to attract additional funding. Sponsors were:

- McKnight Foundation, the Surdna Foundation, and the Jay and Rose Phillips Family Foundation of Minnesota
- Metropolitan Council as part of the Corridors of Opportunity Initiative, through an award from the U.S. Department of Housing and Urban Development



Metro Transit gets colorful

In June 2013, Metro Transit renamed the regional transitway corridors by color. TIRP research cited in this synthesis used the previous place-based names.

METRO Blue Line = Hiawatha Light-Rail Transit (LRT)

METRO Red Line = Cedar Avenue Bus Rapid Transit

METRO Green Line = Central Corridor LRT

METRO Green Line Extension = Southwest LRT

Northstar Commuter Rail = unchanged

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The identity and history of the greater Minneapolis–Saint Paul metropolitan area are strongly shaped by transportation—from water to rail, to streetcars, airports, and highways. In 2004, almost half a century after the region’s streetcar lines were removed, the first new transit line opened in the Twin Cities.

The Blue Line is the initial piece of an expanded network of transitways being called for by several organizations. The network will connect Minneapolis and Saint Paul and the many suburban jurisdictions that make up the greater Twin Cities area—connecting people to jobs, schools, and the other destinations that matter in their lives.

These landmark regional investments have the potential to significantly change long-term land-use patterns and travel behavior. They also raise important questions for policymakers and elected officials regarding the potential return on investment:

- How are travel choices and mobility changing in the Twin Cities as a result of increased transit service and availability?

- What is the connection between transit accessibility and economic growth?
- How will transit investment influence the housing market, development patterns, and land values?
- Who benefits from increased transit accessibility?

The Transitway Impacts Research Program (TIRP) was launched in 2006 to help answer these questions. Under the TIRP umbrella, University of Minnesota researchers provide an objective analysis of data, public perceptions, and complex impacts resulting from these investments. Their research is unique in its breadth, scope, and ability to provide real-time analysis of the changes experienced when a region introduces high-quality transit service.

This synthesis pulls together seven years of TIRP research as well as findings from two related projects conducted by University of Minnesota researchers. It summarizes the actual and projected impacts of transitways on the Twin Cities region, offering lessons learned to help guide the build-out of the rest of the network most effectively. It concludes with a set of implications for policymakers.

Key findings

Transitway investment is significantly improving access to jobs and workers, particularly benefiting low-wage earners. The Blue Line made 14,000 additional low-wage jobs accessible within a 30-minute transit commute to low-wage workers in areas immediately adjacent to transit stations. For those with a direct bus connection to LRT, an additional 4,000 low-wage jobs became accessible.

Transit improves mobility. Transit ridership is increasing. Light rail attracts riders from across the region, including those with access to a car. In fact, 62% of light-rail riders have other travel choices. Express buses and light rail are used by urban and suburban workers of all skill levels.

Development is occurring along new and emerging transit corridors. The Green Line has seen a particularly strong development response. Eighteen residential and commercial/retail developments worth more than \$275 million began construction or entered the planning stage in 2012. This is in addition to the nearly 40 developments worth more than \$944 million that opened, were under construction, or were in the planning stage in 2011 along University Avenue.

The marketplace values transit access. Prices per building square foot have increased near the Blue Line, with highest values for those properties located closest to transit stations. Average single-family home values in Blue Line station areas increased more than \$5,000 between 2004 and 2007, control-

“Our region is committed to building out a strong, networked system of transitways, not just for the obvious benefits of improving transportation options, but just as importantly, to shape the way our region grows—aiming for greater sustainability, strengthened communities, better access to jobs, and economic competitiveness. These research findings offer critically important information to guide our efforts in meeting key regional goals.”

— Peter McLaughlin, Hennepin County Commissioner and Chair of the Counties Transit Improvement Board



ling for market conditions. The positive effect on commercial property values was found to extend to properties located almost a mile from a light-rail station.

People of all incomes benefit from transitway expansion, and those with lower incomes gain the most. The expanded network increases job accessibility and opportunity. Low-income workers see the benefits of transit and are moving into transit-accessible neighborhoods.

A majority of residents and businesses see the value in transit. Roughly 70% of frequent transit riders along Blue Line neighborhoods indicated they have a strongly positive transit experience. Throughout the region, even those who

seldom use transit expressed a positive reaction to transit and its potential effects on neighborhoods. Perceptions about the impacts of transit vary most by corridor and by race.

There is pent-up demand for transit-oriented development in the Twin Cities metropolitan region. Regulatory and cost barriers, combined with the uncertainty of transit expansion, inhibit developers from responding to this demand.

Policymakers can maximize the benefits of transitway investment. Greater benefits are possible the more transportation planning is coordinated with land-use, economic development, and housing policies. Strategies should reflect differences in public preferences, community character, and local housing markets.



What is a transitway?

The term transitway refers to corridors served by fast, reliable, and high-quality passenger transit service such as light rail, commuter rail, and bus rapid transit. Transitways serve high-demand corridors with facility and route improvements that may include dedicated stations and right-of-way. (Definition provided by the Transitway Impacts Research Program.)



Setting the Stage for the Region's Transit System

The Twin Cities region has been experiencing a transit renaissance in recent years. In 2004 the Metropolitan Council (the region's transit agency and metropolitan planning organization with responsibility for long-range transportation planning) proposed improving existing bus services and developing a network of dedicated transit corridors. The council's 2030 Transportation Policy Plan, adopted in 2010, includes a goal to double regional transit ridership from 73 million riders in 2004 to 145 million riders in 2030. The plan also calls for a network of transit corridors, four of which will be operational in 2014.

Counties and local governments are key partners in realizing this transit vision. In 2008 the Minnesota legislature established the Counties Transit Improvement Board (CTIB) and

passed a regional 0.25% sales tax estimated to generate \$100 million annually to help build out the regional transit plan. In 2012, the Minnesota Transportation Finance Advisory Committee, established by Governor Mark Dayton, recommended a slight increase in this sales tax to significantly expand the Twin Cities metropolitan transit system.

The impacts from an increased commitment to transit are already evident. Ridership numbers and public support for transit are both on the rise. In 2012, almost 94 million transit rides were taken on Metro Transit, contract service, and suburban providers.¹ In a January 2013 poll, 79% of respondents agreed that Minnesota "would benefit from having an expanded and improved public transit system."²

Area foundations, businesses, nonprofits, and other organizations are also supportive of transitway expansion. The Itasca Project, an employer-led civic alliance, released an assessment





projecting \$6.6 to \$10 billion in direct benefits from an estimated \$4.4 billion investment, with substantially higher return from an accelerated build-out.³

In addition, a number of important macro-trends are motivating change in transportation and housing preferences both nationally and in the Twin Cities region. The population is becoming much more diverse and demanding more choices, connectivity, and convenience. The growing millennial generation (those born from the early 1980s to the early 2000s) highly value quality of life when choosing where to live and work, and they are driving much less than their parents.

Together, these policies and trends set the stage for the build-out of the Twin Cities transit network. TIRP research found four major ways in which transitways are transforming communities: improving mobility, supporting economic growth, spurring development and higher land values, and supporting opportunity and equity.

A changing region

Population growth and change

- Regional population, currently at 2.8 million, is projected to reach 5 million by 2050.
- By 2035, almost 75% of households in the Twin Cities region will have no children.
- The number of Minnesotans 65 or older will nearly double in the next 20 years.
- The number of foreign-born immigrants in Minnesota was 7.3% in 2011, a 27% increase from 2000.

Congestion

- The average Minneapolis–Saint Paul metro-area driver spends 34 hours each year in traffic, an eight-fold increase since 1982.
- A 2013 Metropolitan Council report found that households in the region make 8.8 trips per day.

Transportation costs

- On average, moderate-income households in the Twin Cities spend 26% of their annual income on transportation.
- Only 48% of the region's neighborhoods are considered affordable when looking at combined housing and transportation costs using the Housing and Transportation Affordability Index.

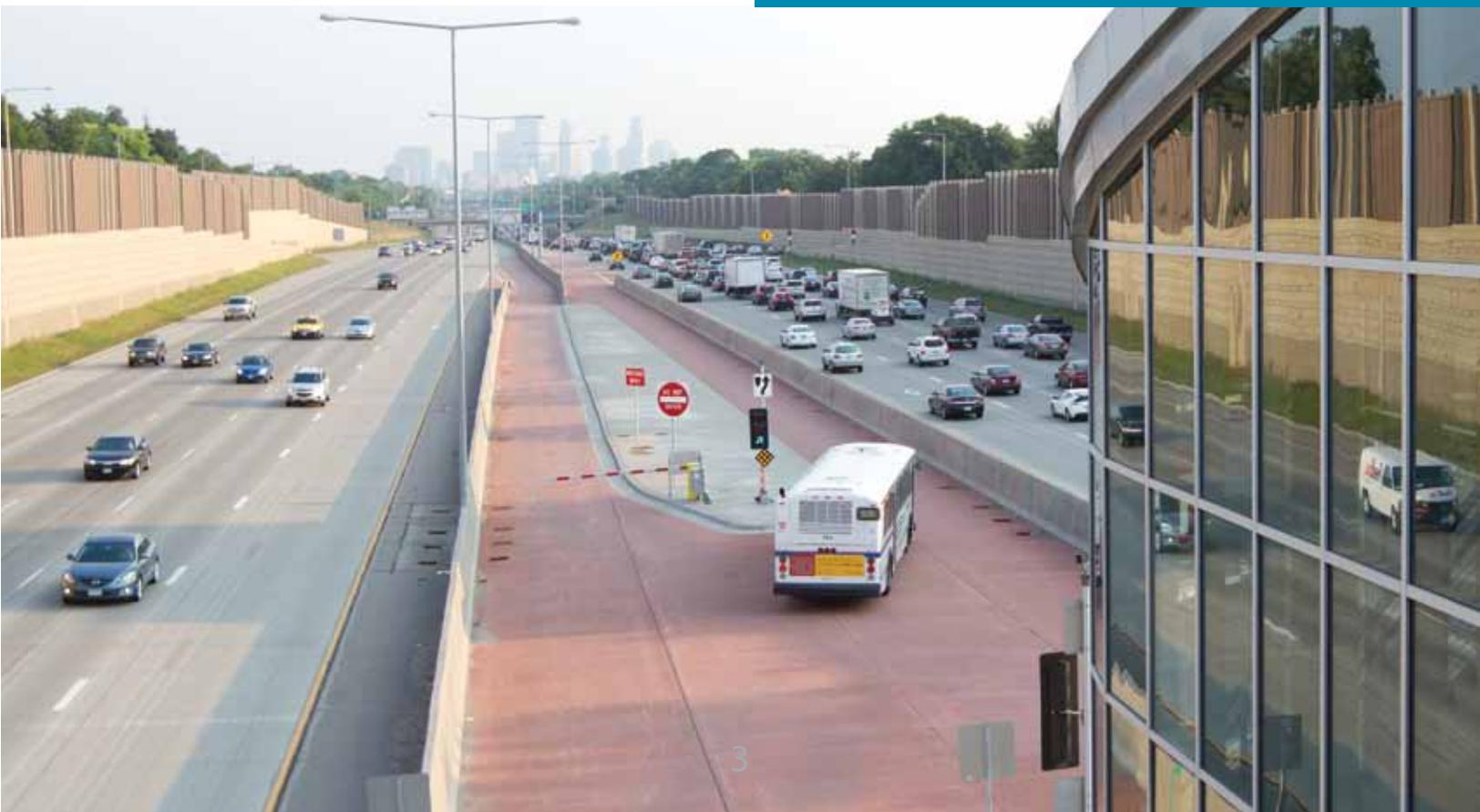
Data sources: Immigration Policy Center, Texas Transportation Institute, Metropolitan Council, Center for Neighborhood Transportation, National Housing Conference

MOBILITY

Transit ridership is increasing—and so is regional mobility. More than a quarter-million rides are taken on transit each day in the greater Minneapolis–Saint Paul metropolitan region. Of those rides, more than 80% bring people to and from work or school.⁴ Express buses and LRT are used throughout the region by urban and suburban workers of all skill levels.

Transit provides essential service for people unable to drive because of their income, physical abilities, or age. Light rail also attracts new riders to the transit system, including those who have access to a vehicle. In fact, TIRP research found that 62% of light-rail riders have other travel choices. Riders use a variety of modes to connect to LRT—bus, park-and-ride, and bicycling or walking are used in almost equal numbers to reach stations. As a result, LRT was found to have a much broader influence on the regional transportation network than local buses and express services do.

Land use also plays a big part in mobility. Case in point: the ridership of the Blue Line, which exceeded projections in both the amount and rate of growth. The line connects two major employment centers, provides a linkage to the region's international airport, and serves major healthcare, retail, and residential destinations. Researchers found that transit use increased significantly among residents who were living along Hiawatha Avenue prior to LRT construction, both for work trips and for non-work trips.⁵





Across the region, transit service varies, and people use transit at different rates and for different trip purposes. TIRP survey results show how people living along existing and proposed transitways travel for personal trips such as medical appointments, shopping, or entertainment. For most people, the car is the mode of choice, reflecting the geographic size of the region, dispersion of housing and jobs, and lower levels of transit provided in many suburban areas. (In Minneapolis, however, 18.8% of households do not have a vehicle.) While 46% of Green Line corridor respondents and 52% of Blue Line respondents make personal trips by walking or biking at least twice a week, this is the case for only 18% of Red Line and 15% of Northstar Commuter Rail respondents.⁶ Northstar is a popular choice for special events, however, such as Minnesota Twins and Vikings games.

In looking at all transit trips (including work trips, which make up the largest percentage), TIRP researchers uncovered the following Twin Cities characteristics:⁷

- Local buses carry the greatest percentage of riders who do not own a car or cannot drive (52%).
- Blue Line riders' mode choice for reaching stations is a rough balance of walking (38 percent), park and ride (30 percent), and bus (31 percent). Among the walkers, about two-thirds walk more than a quarter mile to reach a transit station, with a median of 0.37 mile.

- On average, Blue Line riders live 3.5 miles away from the route, whereas riders of parallel local buses live within one mile of a bus stop.
- One-third of Blue Line riders are reverse commuters.
- Half of all Blue Line riders transfer to another mode during their trip (primarily bus or auto), enabling rail stations to serve as multimodal transit centers.
- Premium express buses are an important mobility option. They bring suburban workers to downtown jobs and have the greatest number of "choice" riders (92%)—those who can drive but choose to ride transit.
- Almost a quarter of residents along the Green and Blue Line corridors commute by transit at least twice a week, making transit the most important individual non-automotive mode.

Transitways Support Economic Growth

Job accessibility

For a region to thrive, employees with the right skills need to be able to reach appropriate employers in a reasonable time and at an affordable cost. The expanded Twin Cities transit network is helping to make this happen: Employers now have access to a larger labor pool, and workers of all skill levels can reach a larger number of jobs.

The Blue Line, for example, made 14,000 additional low-wage jobs accessible within a 30-minute transit commute for low-wage workers in areas immediately adjacent to transit stations. For those with a direct bus connection to LRT, an additional 4,000 low-wage jobs became accessible.⁸

Transit serves the downtowns and urban neighborhoods well, but in recent years job growth has largely occurred in suburban areas not currently well-served by transit. TIRP researchers found that while 80% of the region's jobs are located within a half mile of a transit station, only 27.4% of jobs located near stations have frequent service. Within a 30-minute bus or

train commute, the average metropolitan resident can access slightly more than 117,500 jobs. In contrast, more than 1 million jobs are accessible within a 30-minute drive.⁹

Researchers also found that the current transit system serves core industry clusters at different levels. These core industry clusters (such as medical equipment manufacturers) drive regional employment, pay higher wages, and have faster wage growth, and they vary in size and location. Findings show that

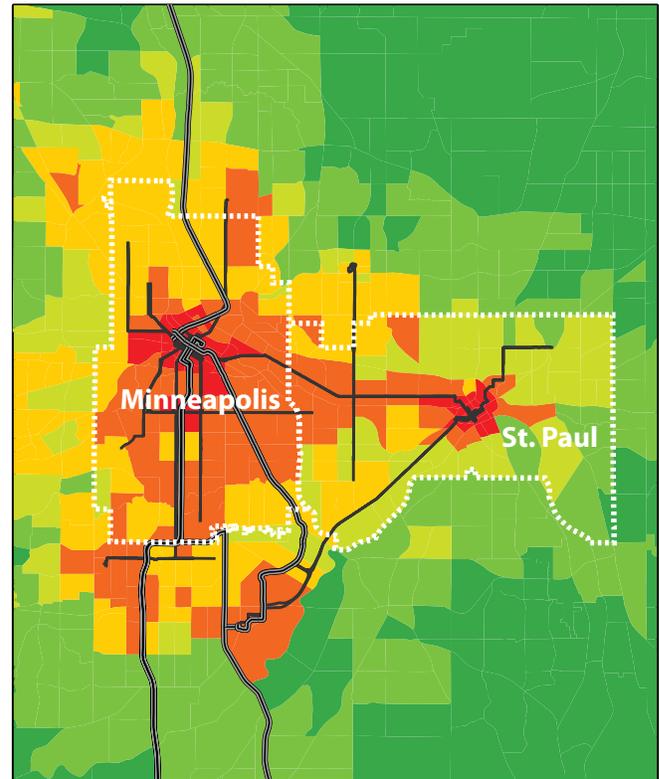
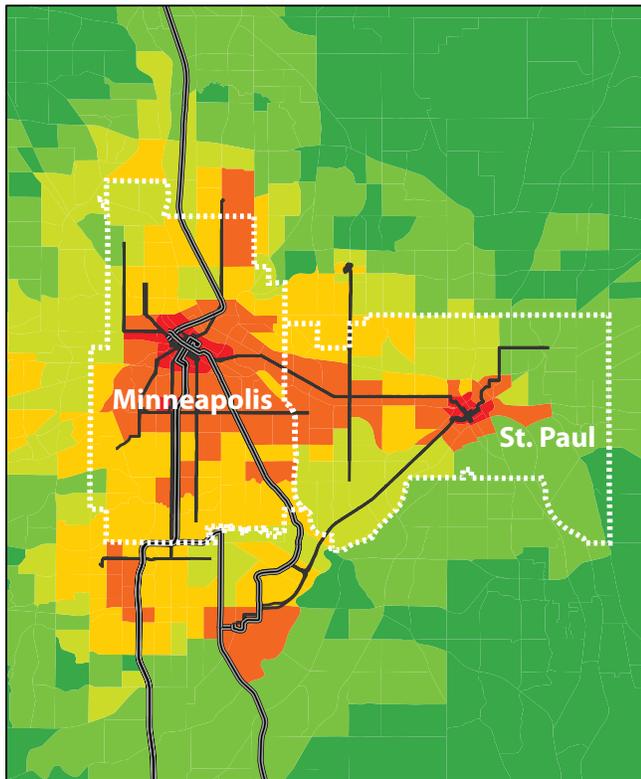
"By locating jobs on or near transitways, businesses gain a significant competitive advantage in accessing the largest practical labor pool possible—an advantage that will only grow sharply as competition increases for employees due to demographic shifts."

— Jay Cowles, Co-Chair, Itasca Project Transportation Task Force



2010 Job Accessibility by Transit

2030 Job Accessibility by Transit



Legend

Number of jobs accessible within 30 minutes of transit travel

<p>0 - 50000</p> <p>50001 - 150000</p> <p>150001 - 250000</p>	<p>250001 - 350000</p> <p>350001 - 550000</p> <p>> 550001</p>
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Figure 1: Accessibility by transit to all jobs within 30 minutes of travel in 2010 and 2030 (Fan and Tilahun 2012)

few medical manufacturing jobs are reachable by transit, for example, while many finance and insurance jobs are located along urban transitways. This reflects decisions by some employers to locate in suburban areas where land costs are generally lower, along with the unique needs of certain types of manufacturing for moving goods and services.

To predict how transitway expansion will improve accessibility to core industry clusters and all other jobs, researchers developed and analyzed several different scenarios.¹⁰ They found that if the build-out proceeds as planned, areas in the center of the metropolitan area—home to many low-income

workers—will see even greater job accessibility than today (Figure 1).

Targeting future development inside the I-494/I-694 loop would create additional job accessibility beyond these projections, and locating development along transitways would provide even greater benefits. In both cases, the population with the greatest need receives the greatest benefits.

Researchers also found that locating new jobs near transitways produces larger accessibility increases than locating new housing near transitways, with the greatest benefits realized by balancing both.¹¹

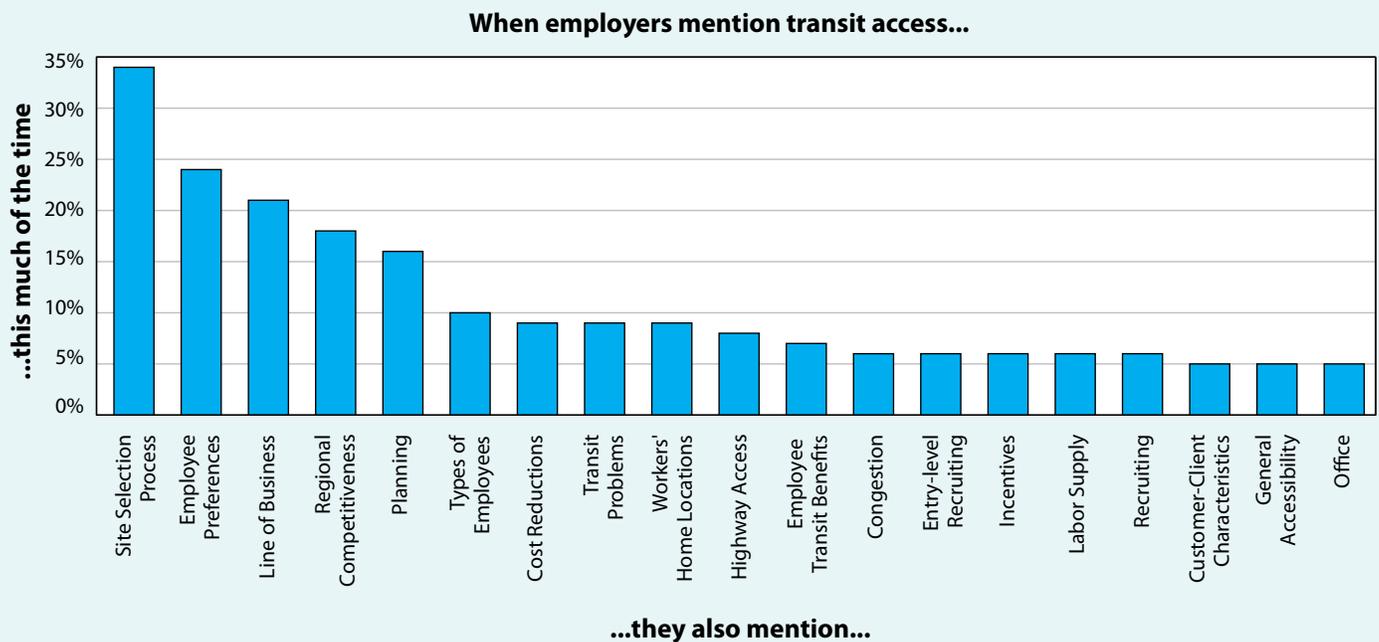


Figure 2: The business community views transit access as important for attracting in-demand employees and improving regional competitiveness (*Fan and Guthrie 2013*).

Regional competitiveness

America’s metropolitan regions are increasingly recognizing that transit investments help drive economic competitiveness. Cities that offer walkable, vibrant neighborhoods with access to transit and other amenities are better able to compete with their counterparts across the country and beyond our borders.

The Twin Cities business community also recognizes that investing in a world-class regional transit system will help ensure long-term regional competitiveness. Transit access is viewed as important for attracting highly skilled, in-demand employees, particularly the millennials who are beginning to succeed baby boomers in the workforce. Interestingly, even employers who do not expect many of their own employees to use transit see transit improvements as desirable from a regional competitiveness perspective.¹²

The Twin Cities region includes a mix of small, medium, and larger employers, and it has more Fortune 500 companies per capita than any other region in the nation. TIRP researchers studied four regional transitway corridors to get a picture of the types of businesses currently located along them.¹³ Retail accounts for a large percentage of the businesses sampled (16% to 36%), with notable percentages of food service and personal service businesses as well as professional, scientific,

and technical services. Regardless of the mix, small businesses (with 8 to 13 employees) made up the majority of businesses in all four corridors’ samples.

Among these small businesses, a majority believe that customers currently use or will use transit. Some of the small businesses are concerned, however, about the loss of revenue during transitway construction. Some also wonder if they may be “planned out” of transitway areas based on sector, size, or age; this is especially true for automobile sales and service businesses, businesses with smaller sales volumes, and older businesses. Suburban small business owners are also more uncertain of transit’s impact.

In another study, researchers surveyed senior executives and business owners in core industry clusters.¹⁴ These business leaders generally see the connections between transit access and their bottom line (Figure 2), and they are incorporating transit into their marketing, business location, and sales strategies.

As light rail extends into suburban locations, it will link to some of the region’s largest employers. One example is along the proposed Green Line extension, where UnitedHealth Group Inc. is building a 70-acre campus for 6,700 employees in Eden Prairie near a planned LRT station.

Transitways Spur New Development and Higher Land Values

Land-use change is often slow, yet since the opening of the Blue Line, new construction along transitways has exceeded expectations. In fact, the opening of the first light-rail line contributed significantly to a residential building boom in south Minneapolis. TIRP research found that 5,400 new housing units were completed or under construction by 2005, with permits for an additional 7,000 processed by city governments. This represents almost twice as much new construction within the first year of service as was projected for the next 20 years. In total, 67 residential properties were constructed within 300 feet of the Blue Line between 2004 and 2008.¹⁵

The Green Line along University Avenue, which has a mix of land-use types and vacant land, has seen a particularly strong development response. Eighteen residential and commercial/retail developments worth more than \$275 million began construction or entered the planning stage in 2012. Those 18 projects will have nearly 2,300 housing units and more than 109,000 square feet of commercial/retail space. This is in addition to the nearly 40 developments worth more than \$944

million (with 5,100 housing units and 712,000 square feet) that opened, were under construction, or were in the planning stage in 2011 along University Avenue.¹⁶

Numerous national studies have generally found a price premium for properties located near rail transit, reflecting their perceived accessibility benefits. Along the Blue Line, a TIRP research team found a substantial increase in land values near the 17 stations, especially those located in Minneapolis.¹⁷ Among the key findings:

- A significant accessibility effect is increasing property values for single-family residential properties located within station areas west of the Blue Line, with price increases extending beyond a half mile.
- Total development resulted in a combined price premium of \$25.2 million for residential properties sold after 2004 in the station areas from Cedar Riverside in the north to the V.A. Medical Center to the south. When



applying the increase in value to all residential properties along the Blue Line, the LRT line has produced an increase of \$47.1 million in residential property value between 2004 and 2007.

- Properties on the east side of the Blue Line do not benefit from proximity to the line. This is likely due to the intervening effect of the four-lane Hiawatha Avenue and the strip of industrial land use immediately adjacent to the highway on the east. The combination of these factors pushes the nearest residential property close to 200 meters away from the LRT line and its stations. Furthermore, the large industrial structures create a visual barrier between the residential properties on the east and the Blue Line.

A companion TIRP study found that commercial and industrial properties also saw land value rise along the Blue Line, with impacts extending nearly one mile from station areas. After

the line opened in 2004, prices per building-square-foot increased from \$36 to \$56, controlling for other factors, with the highest rents going to areas closest to stations. Proximity to highway ramps and major traffic intersections along Hiawatha Avenue did not provide any financial impact for nearby properties. In 2007, commercial land values within a quarter mile of LRT stations increased 38% from 2004, which was roughly 18% higher than the change for the larger subregion.¹⁸

Higher land prices are translating into higher market interest. In a TIRP-related study, interviews of developers revealed pent-up demand for transit-oriented development.¹⁹ Regulatory and cost barriers, however, combined with the uncertainty of transit expansion, inhibit the market from responding to this demand. Developers said they will sacrifice transit access if a site is more expensive or presents more complex regulatory hurdles than traditional auto-oriented design.

“What I find so compelling is the opportunity for this investment to help connect a community to the broader region. Transit increases a neighborhood’s potential for new private investment and increased access to regional jobs.”

— Jim McDonough, Commissioner,
Ramsey County



Transitways Support Opportunity and Equity

One of the questions TIRP sought to answer was this: Who benefits from transitway expansion? And specifically, will the build-out increase opportunity for low-income residents and improve equity?

The answer is that people of all incomes benefit from transitway expansion—and those with lower incomes gain the most. Low-income residents use transit at considerably higher rates than do high-income workers. Researchers discovered the current transit system is largely consistent with the needs of the population, offering the greatest job access to those with the greatest need.²⁰ Areas of weakness, however, exist in locations outside the downtowns scattered throughout the region, some with major concentrations of low-wage jobs and workers.²¹

The expanded transitway network increases job accessibility (see Figure 3) and broadens access to opportunity for low-wage workers. TIRP researchers found that low-income workers see the benefits of transit access and have moved into neighborhood station areas along the Blue Line and in areas surrounding bus stops that offer a light-rail connection.²²

Transitway neighborhoods also reflect the increasingly diverse Twin Cities metro population. Significant concentrations of racial minority residents live near the northern end of the Blue Line and the eastern end of the Green Line. Suburban corridors are generally less racially diverse, but suburban blocks with high proportions of minorities are becoming more common in the northwest metro. In general, minority populations use transit more frequently and rely most heavily on the bus system—and thus stand to gain from increased transit accessibility.

The increase in property values and construction along the Blue and Green Line corridors testifies to the desirability that a growing number of households see in living near transit. As

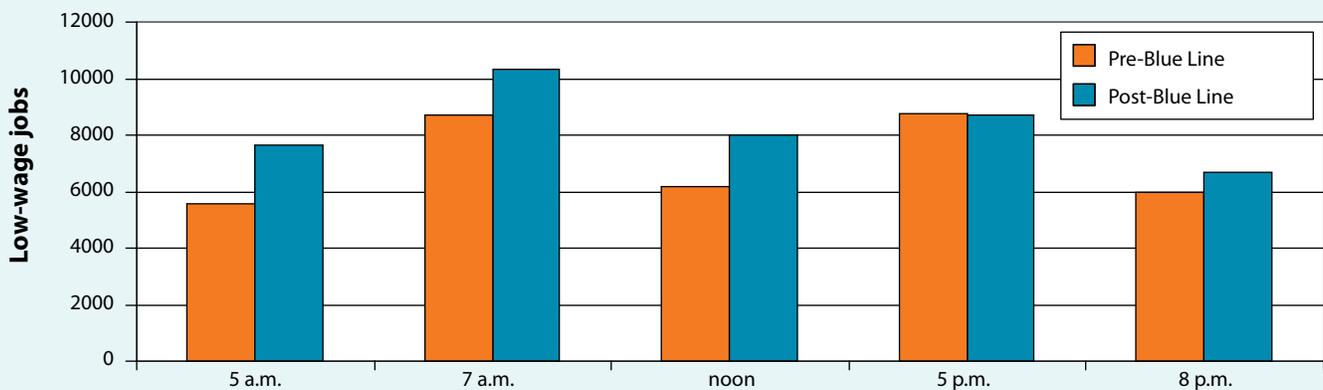


Figure 3: The expanded transitway network increases the average number of low-wage jobs accessible within a 30-minute transit trip in the Twin Cities' transit-served areas (Fan et al. 2010).

demand for housing near transit increases, however, concerns grow that low-income renters or business owners may be priced out. In a TIRP-related study, multiple developers said that for affordable housing to be financially feasible, it needs to be “affordable by design” (through increased height and density limits and reduced parking ratios) rather than by public subsidy.²³ Several study participants also said that transit access itself—by dramatically reducing household transportation costs—makes all housing inherently more affordable.

The general public’s perceptions toward transit have also changed over the past decade. In their research on neighborhood and social influences of transit corridors, TIRP researchers found that overall, the perception of transitways’ impact on neighborhoods is positive. Residents value transit investments and think they will give them more travel choices throughout the region and support more vibrant neighborhoods.²⁴ People with experience using LRT, frequent transit users, and transit-dependent riders all have overwhelmingly positive attitudes regarding transit-induced neighborhood change.

“The true cost of housing must include transportation. Housing and transportation costs make up the largest parts of most household budgets. By expanding the Twin Cities’ transit system and providing affordable housing options along it, we can create more economic stability for working families.”

— Susan Haigh, Chair, Metropolitan Council



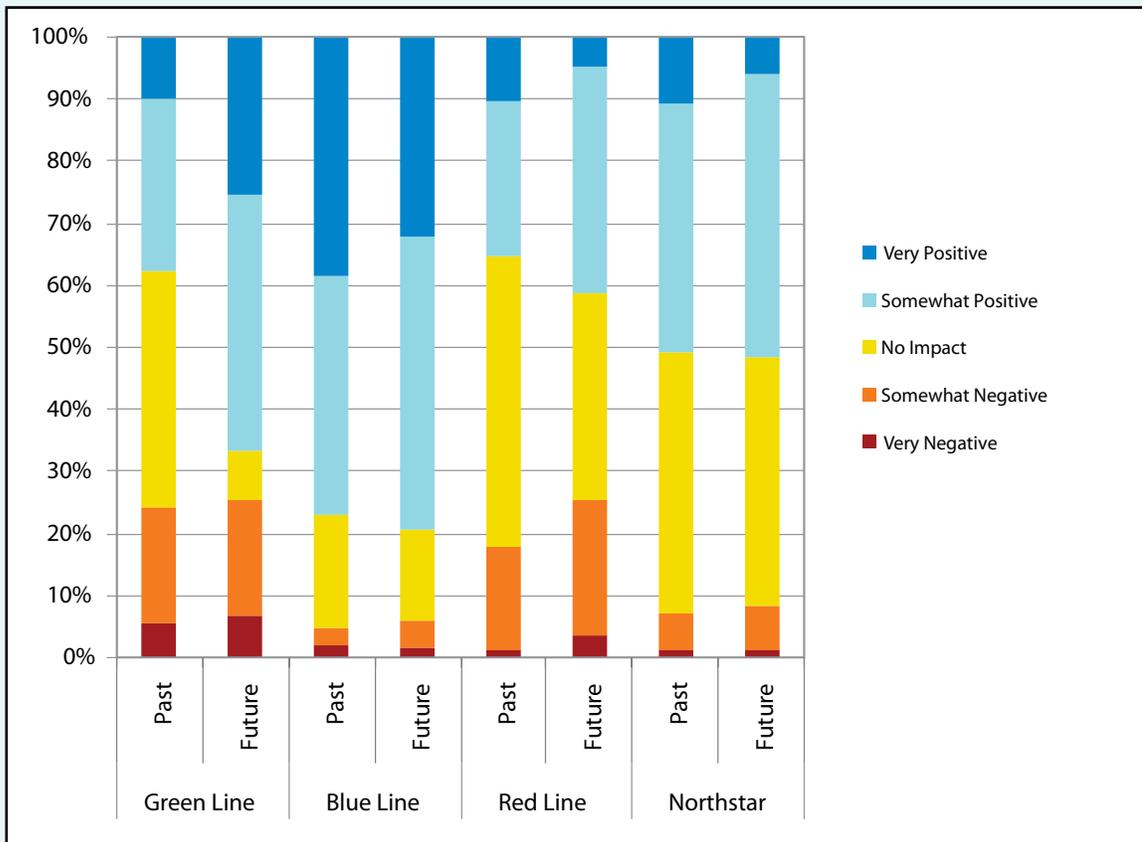


Figure 4: Residents' perceptions of transitway impacts vary by corridor (Fan and Guthrie 2012).

The extent of positive change that residents and businesses expect, however, varies widely from corridor to corridor, and specific groups have negative perceptions of transit-induced change. Differences exist between suburban and urban respondents (Figure 4) and across racial and ethnic groups. A majority of Asian urban residents, for example, expect positive future impacts of the Green Line, yet 41% expressed negative views, with particular concern about transit construction's potential impacts on small businesses. These differences demonstrate a need for local community-sensitive planning of transitways, with an understanding that communities can be defined in many ways.



Policy Implications

TIRP research sheds light on the broad impacts transitways have on communities. It also points out the potential to maximize benefits to support mobility, economic, quality-of-life, and equity goals. Accelerating the transit build-out could yield results even sooner.

The following policy implications—derived from the research—are offered to support local policymakers, planners, transit providers, and others in their decision making and priority setting for the continued build-out of the regional transit network in the Twin Cities.

Mixed use means more mobility. A mix of land uses and compact development near transit can significantly increase mobility options, allowing for more trips to be made by transit, walking, or bicycling. Greater accessibility benefits are possible the more transportation planning is coordinated with land-use, economic development, and housing policies.

Employers and workers benefit. For all workers, and especially those with low incomes, maintaining and improving the entire transit network increases their ability to seize regional employment and educational opportunities. Riders will need reliable and frequent transit routes, which may mean more feeder bus services and park-and-ride facilities.

Transit promotes regional competitiveness. Companies and employees—especially millennials and young professionals in high demand—are seeking metro areas with a variety of transportation choices. Targeting jobs near transit will create the greatest use of the transit system and expand accessibility to jobs and workers.

A changing population is changing development. Population growth, demographic change, and market demand are creating new interest in transit-oriented design, but policies such as minimum parking requirements inhibit the market from responding. Local policies that support more compact and mixed-use development near transit could allow more development to meet this demand.





“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, Saint Paul Chamber of Commerce

No one size fits all. Development opportunities are uneven along transit corridors, which include a mix of established neighborhoods, older industrial areas, and downtown centers. Diverse strategies need to ensure that land-use policies and development reflect differences in public preferences, community character, and local housing markets. This could include new partnerships between local governments and community advocates to ensure long-term affordability of homes and businesses.

Change is constant. Land-use change is ongoing, and it takes time. Each new transitway brings a greater understanding of the potential impacts, both positive and negative, to surrounding neighborhoods and the region. The real estate market is just beginning to respond to these changes, so the impacts on property values, gentrification, and land use are still unclear. Policies need to provide flexibility to adapt to these changes and market realities, which may differ in urban and suburban locations.

Neighborhoods and communities matter. Public support for transit is growing, with a majority of residents and business owners perceiving its benefits. Important distinctions exist, however, across different racial and economic groups and between urban and suburban residents. Neighborhoods along transitways also have differing physical attributes—some may have higher densities and sidewalks, for example, while others have more trails and open space—which influences attitudes toward transit use. Additional investments may thus be needed to create more transit-friendly station areas. This underscores the need for local and regional governments to conduct ongoing, inclusive outreach, planning, and mitigation efforts that recognize the unique cultural and ethnic values of communities.



Unconventional wisdom

Over the past seven years, TIRP researchers uncovered a number of facts that counter previous national studies and assumptions regarding transit and transit-oriented development. Here are the top eight findings that run counter to conventional wisdom:

1. Roughly three-quarters of LRT users walk more than a half mile to and from transit. (Planners generally assume a half mile is the upper limit.)
2. Both high- and low-income riders benefit from increased transit access, with LRT creating greater regional accessibility impacts than express bus service.
3. The Twin Cities has a greater percentage of high-frequency riders than typical systems.
4. Low-income commuters make up the largest percentage of transit riders but don't uniformly support transit.
5. Accessibility increases associated with LRT extend to bus connection areas.
6. Destinations such as the Mall of America attract riders to the Blue Line even though the corridor lacks high densities or land-use mixes commonly thought necessary to create strong ridership numbers.
7. Prioritizing jobs near transit creates bigger accessibility benefits than a housing-focused approach.
8. Property value increases extend to almost a mile beyond the station area—farther than reported for any other system in the country.

Bibliography

These reports are available for download on the TIRP website: cts.umn.edu/Research/Featured/Transitways

TIRP-funded work

Cao, Xinyu (Jason), and Rachel Jordan (July 2009). *Understanding Transportation Impacts of Transitways: Demographic and Behavioral Differences between Transitway Riders and Other Transit Riders*. Minneapolis, MN: Center for Transportation Studies, CTS Report 09-16.

Cao, Xinyu (Jason), and Jessica Schoner (January 2013). *Transportation Impact of Transitways: A Case Study of Hiawatha Light Rail Transit in Minneapolis*. Minneapolis, MN: Center for Transportation Studies, CTS Report 13-13.

Fan, Yingling, Andrew Guthrie, and Rose Teng (June 2010). *Impact of Twin Cities Transitways on Regional Labor Market Accessibility: A Transportation Equity Perspective*. Minneapolis, MN: Center for Transportation Studies, CTS Report 10-06.

Fan, Yingling, and Arthur Huang (May 2011). *How Affordable is Transportation? A Context Sensitive Framework*. Minneapolis, MN: Center for Transportation Studies, CTS Report 11-12.

Fan, Yingling, and Andrew Guthrie (July 2012). *Assessing Neighborhood and Social Influences of Transit Corridors*. Minneapolis, MN: Center for Transportation Studies, CTS Report 12-19.

Goetz, Edward, G., Aaron Hagar, Hoang Ton, Kate Ko, and Jeff Matson (February 2010). *The Hiawatha Line Impacts on Land Use and Residential Housing Value*. Minneapolis, MN: Center for Transportation Studies, CTS Report 10-09.

Ko, Kate, and Xinyu (Jason) Cao (June 2010). *Impacts of the Hiawatha Light Rail Line on Commercial and Industrial Property Values in Minneapolis*. Minneapolis, MN: Center for Transportation Studies, CTS Report 10-05.

Other work cited

Fan, Yingling, and Andrew Guthrie (May 2013). *Achieving System-Level, Transit-Oriented Jobs-Housing Balance*. Minneapolis, MN: Center for Transportation Studies, CTS Report 13-24. Sponsors: Metropolitan Council as part of the Corridors of Opportunity Initiative, through an award from the U.S. Department of Housing and Urban Development.

Fan, Yingling, and Nebiyou Y. Tilahun (September 2012). *Maximizing the Benefits of Transitway Investment*. Minneapolis, MN: Center for Transportation Studies, CTS Report 12-16. Sponsors: McKnight Foundation, the Surdna Foundation, and the Jay and Rose Phillips Family Foundation of Minnesota.

Endnotes

1. Minnesota Department of Transportation (2012). *2012 Transit Report—Operating Statistics*.
2. Saint Paul Area Chamber of Commerce, Minneapolis Regional Chamber of Commerce, and TwinWest Chamber of Commerce (January 2013). "Poll shows strong support for transit funding."
3. The Itasca Project (November 2012). *Regional Transit System: Return on Investment*.
4. Fan, Guthrie, and Teng (June 2010)
5. Cao and Schoner (January 2013)
6. Fan and Guthrie (July 2012)
7. Cao and Jordan (July 2009)
8. Fan, Guthrie, and Teng (June 2010)
9. Fan and Tilahun (September 2012)
10. Fan and Tilahun (September 2012)
11. Fan and Tilahun (September 2012)
12. Fan and Guthrie (August 2013)
13. Fan and Guthrie (July 2012)
14. Fan and Guthrie (August 2013)
15. Goetz et al. (February 2010)
16. Metropolitan Council (December 20, 2012). "More than \$1.2 billion in development occurring along Central Corridor."
17. Goetz et al. (February 2010)
18. Ko and Cao (June 2010)
19. Fan and Guthrie (August 2013)
20. Fan and Tilahun (September 2012)
21. Fan and Tilahun (September 2012)
22. Cao and Schoner (January 2013)
23. Fan and Guthrie (August 2013)
24. Fan and Guthrie (July 2012)

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