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**Ride On:**  
Strategies for promoting transit ridership at the University of Minnesota-Twin  
Cities

**Capstone Paper**

In Partial Fulfillment of the Master's Degree Requirements  
The Hubert H. Humphrey School of Public Affairs  
The University of Minnesota

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# RIDE ON

**Strategies for  
promoting transit  
ridership at the  
University of  
Minnesota-Twin Cities**

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Spring 2019







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## Where Are We Now?

Image Source: Metro Transit

Nearly two decades ago, Metro Transit and the University of Minnesota-Twin Cities (UMN-TC) came together in a partnership to develop a mutually beneficial and forward-thinking transportation solution. A sizeable portion of students at UMN-TC commuted to class, and the campus faced a parking shortage. A transit-based strategy was a natural solution to reducing parking demand, and together Metro Transit and UMN created the U-Pass in 2000.

A deeply discounted transit pass for students enrolled at the Twin Cities campus, U-Pass is available for individual purchase each semester. In Fall 2018, students purchased 14,136 U-Pass cards; with 50,943 students enrolled, about 28% of students held a U-Pass. While this number reflects the importance of U-Pass and transit access for students, historic trends point to a more troubling pattern of decline.

From 2001 to 2009, the U-Pass experienced 189% sales growth with just under 50,000 U-Passes

sold in 2009 (which includes Spring, Summer, and Fall Semester purchases). In the following years, sales began a downward descent. By 2018, sales declined by 34% from 2009 levels. Two highly localized factors seem to be working in tandem to influence this decline:

- The addition of new housing on campus and in surrounding neighborhoods
- The popularity of increasingly convenient transportation options like UMN circulator buses, bikes, electric scooters, ride hailing, and walking.

Since 2002, the campus added 2,193 bedrooms in UMN-managed apartments. Today, 88% of first-year students live on-campus,<sup>1</sup> estimated at over five thousand freshmen in Fall 2018.<sup>2</sup> Within a half-mile of campus, private developers constructed at least 44 apartment buildings, providing 4,914 new rental units between 2001-2017. While first-year students largely choose on-campus housing, many



Image Source: University of Minnesota

upperclassmen undergraduates continue to live nearby in neighborhoods like Dinkytown, Como, Marcy Holmes, and Prospect Park.

Given that more students can now live closer to campus than in prior years, students are also changing the way they get around for their trips to class, recreation, work, internships, and shopping. Walking and biking are feasible options for many students who live on or near campus, especially given recent improvements to the campus walking and biking infrastructure. The explosive popularity of ride-hailing, bikeshare, and electric scooters also present students with new and exciting travel opportunities. Finally, UMN-operated buses provide free rides to convenient locations around the Twin Cities campus.

Metro Transit's ability to impact these factors is limited; instead, the agency can plan for adaptation and responsiveness to these changing conditions. This report

outlines a series of recommended actions that Metro Transit can take to reinforce student ridership and support service at UMN-TC. Each recommendation focuses on one of four themes: multimodal transportation, lifestyle, technology, and partnership with UMN. By orienting transit service at UMN-TC as an integral piece of a wide and shifting transportation landscape, Metro Transit can plan for both greater resiliency and impact on a rapidly evolving campus.

### Tip: Check out the Glossary

Unfamiliar with a term, entity, or acronym? Appendix D on pages 68-72 contains a glossary of 60 words and names that appear in this report. While most terms are briefly defined within the report, for some terms the glossary provides supplemental information that may be helpful to the reader.

<sup>1</sup> UMN. Why University Housing.  
<https://housing.umn.edu/why>

<sup>2</sup> UMN. Official Enrollment Statistics.  
<https://www.oir.umn.edu/student/enrollment>



# Problem Statement

## Adapting to Rapid Change

The U-Pass is a Metro Transit fare product offered by University of Minnesota. It is available for students to purchase on a semester basis, and it provides unlimited transit rides. This product is valid on regular route buses, bus rapid transit (BRT), and light rail (LRT) provided by Metro Transit and suburban transit providers. Recent numbers have shown that while the price of the U-Pass is increasing, sales are declining; the result is a consistent negative percent change in sales. One implication is that this product is not as effective at attracting student ridership as it was in prior years. Metro Transit needs to identify factors influencing this decline and develop strategies to best serve students at the University of Minnesota Twin Cities (UMN-TC).

To identify potential factors and their impact on U-Pass sales, this analysis will address the following questions:

- How is housing development around the UMN Twin Cities campus impacting U-Pass sales and student travel behavior?
- How do emerging travel options like Transportation Network Companies and Shared Mobility Devices impact U-Pass sales and student travel behavior?
- What barriers do students face to accessing transit?
- What tools can Metro Transit implement to continue to attract student ridership?

# Background

*Learn how and why Metro Transit and UMN came together to create the U-Pass, how the product has changed, and what the U-Pass looks like today.*

## U-Pass Over the Years

### History

In the 1990s, UMN began conversations with Metro Transit around bus pass programs that could alleviate their parking and congestion issues while incentivizing people to choose riding the bus to campus. UMN felt encouraged to pursue a U-Pass model after studying cases of other colleges and universities around the country who operated similar programs.

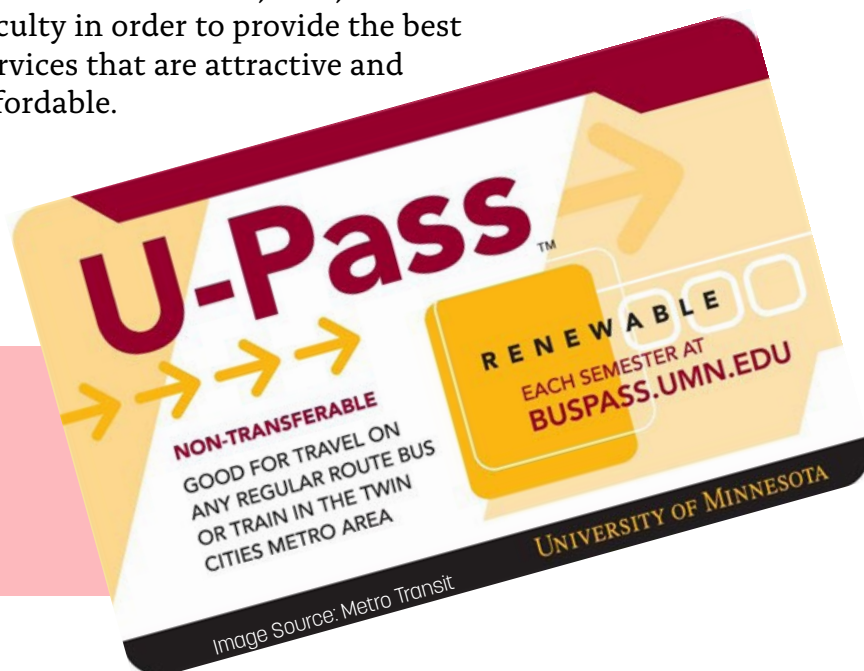
After several years of negotiations and studies, the U-Pass program was implemented in Fall 2000. The program was a result of a \$5.5 million Congestion Mitigation Air Quality (CMAQ) grant from the federal government. The grant also initiated a partnership between Metro Transit and UMN, whose

roles were focused on moving students, staff/faculty, and visitors to and from the University and within the campus boundaries, respectively.

Both entities are responsible for different actions that enable the sustainability of the program. UMN's Parking and Transportation Services (PTS) manages the U-Pass program. PTS's main role involves handling customer service, replacing lost cards, collecting fees, and marketing. Metro Transit administers processes such as coding, distributing, and billing. The partnership continues to explore the travel trends and behavior of students, staff, and faculty in order to provide the best services that are attractive and affordable.

### What is the U-Pass?

- Deeply discounted semester-long pass
- Valid for rides on regional buses and light rail
- Available only at UMN Twin Cities campus





### **Current U-Pass program**

Today, the U-Pass is labeled as “deeply-discounted metro-area transit pass for students at just \$114 a semester” (U-Pass). By purchasing the pass, students gain unlimited rides on Metro Transit regular route bus lines and light rail (LRT) and it qualifies students for the Guaranteed Ride Home program (GRH). GRH is a Metro Transit program that offers registered participants rides home for personal emergencies through a reimbursement process.

In order to be eligible to purchase the pass, students must meet the following requirements:

- **Registered at the Twin Cities campus**
- **Enrolled for a current semester credit**
- **Paid the transportation fee (\$25 in 2018-2019 academic year)**
- **Hold a student U Card with ID number and active U of M internet account**
- **Work less than 30 hours a week if they are also employed by UMN**

U-Pass are available to purchase at the beginning of each semester. The Fall pass begins around the last week of August and runs through late January. The Spring semester pass will activate a business day after the end of the Fall pass and runs through mid-May. The Summer pass starts a business day after the end of the Spring pass and runs through the last week of August. According to Parking and Transportation Services, the dates are strategically determined to allow students to access transit according to the academic calendar.

The purchasing and renewal process is accessible online. Charges are made to students’ University accounts and they can pay electronically by card or with financial aid. In order to use the pass, students must have the physical card by picking it up at either of the Information Desk in Coffman Memorial Union or the St. Paul Student Center. If students lose their U-Pass card they can request for a replacement card by filling out an online form and pay a fee of \$7.

### **Guaranteed Ride Home**

Adults 18 or older can register for free to receive reimbursement for emergency car rides home. Participants must carpool, vanpool, ride transit, walk, or bike at least 3 days per week to be eligible. Metro Transit will reimburse up to 4 rides or \$100 in value in a year, whichever comes first. Users can apply their emergency ride on transit or to trips by taxi, car share, car rental, or ride-hailing (e.g. Uber or Lyft).



## Marketing

Marketing is a key role in the success of the U-Pass program. PTS handles a great portion of marketing on campus; Metro Transit focuses on students mailers and paid campus advertisements. On campus, one of the most successful strategies has been informational sessions during Orientation and campus events. PTS collaborates with the Office of Orientation and Transition Experiences to bring awareness of the program to incoming and transferring students.

PTS also spends time and money on sending out information through email and mail. Sending mail to students can be difficult as the system does not have a consistent or effective way of collecting information on student addresses when they move.

Students are also learning about the U-Pass program by word of mouth. Their decision to purchase a U-Pass can be influenced by the opinions of their peers. In addition, students are also sharing knowledge on how to ride public transit with each other.

Other partnerships that have helped PTS reach students include Campus Life and surrounding student housing.

## Campus Zone Pass

The Campus Zone Pass was established in 2014 at the same time the Green Line opened. The Campus Zone Pass permits free light rail rides between the West Bank Station and Stadium Village Station. Students must opt-in and obtain a physical card from PTS or student information desks. Current U-Pass card holders already receive unlimited rides, so they may choose not to obtain a Campus Zone Pass. While Campus Zone Pass is free, students are charged a small fee to replace stolen, damaged or lost cards. Unlike the U-Pass, the Campus Zone Pass is valid for a full year.





## Sales & Ridership

### ***U-Pass funding, price, and sales***

In the beginning, the U-Pass program was funded through two main sources, central funding and the CMAQ grant. The funding structure stayed as is until the end of Fiscal Year 2003 (FY '03) when the central funding source was phased out. Eventually, the grant funding also ended at the end of FY '05 requiring the PTS to switch to other funding sources. Today, the program is supported by portions of the student transportation and safety fee and parking revenues.

Since it launched about 20 years ago, the U-Pass has more than doubled in price going from \$50 to \$114 per semester. The greatest price change was between FY '08 and FY '09 in which the price was increased by \$20. FY '08 and FY'09 also had the greatest sales volume (see **Figure 1**). A major factor that could have contributed to the increased price and sales was the time between the collapse and reconstruction

of the I-35W bridge in the fall of 2007 to 2008. The bridge is a major connection to Minneapolis and the UMN campus for commuters travelling from other parts of the metro. During reconstruction, commuters were rerouted which caused congestion to surrounding roadways. The additional travel time and congestion could have been an impetus for students to rely on public transit. Since FY '10, the percent change in total sales have steadily declined with only a positive percent change in FY '15 (see **Figure 2**).

### Congestion Mitigation and Air Quality (CMAQ)

The Federal Highway Administration funds transportation-related projects that relieve congestion and improve air quality. For every year from 2016 to 2020, CMAQ grants provide \$2.3-2.5 billion to projects around the United States. Since implementation in 1992, the CMAQ program has allocated \$30 billion to over 29,000 projects.

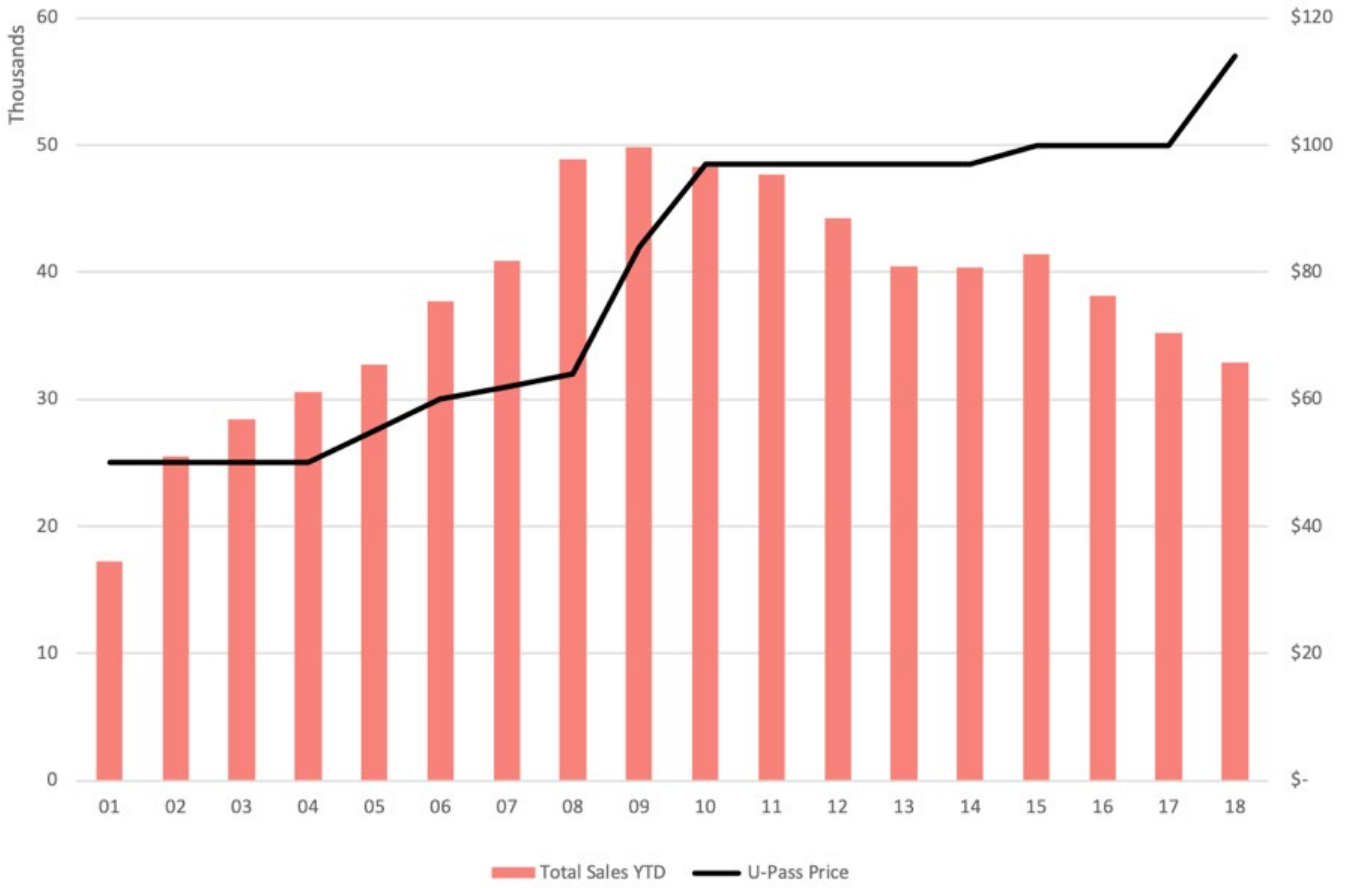


Figure 1. Comparison of total U-Pass sales (bar) and the price (line) from FY 2001 through FY 2018. The left axis indicates the number of sales in thousands. The right axis shows the price in dollar values.

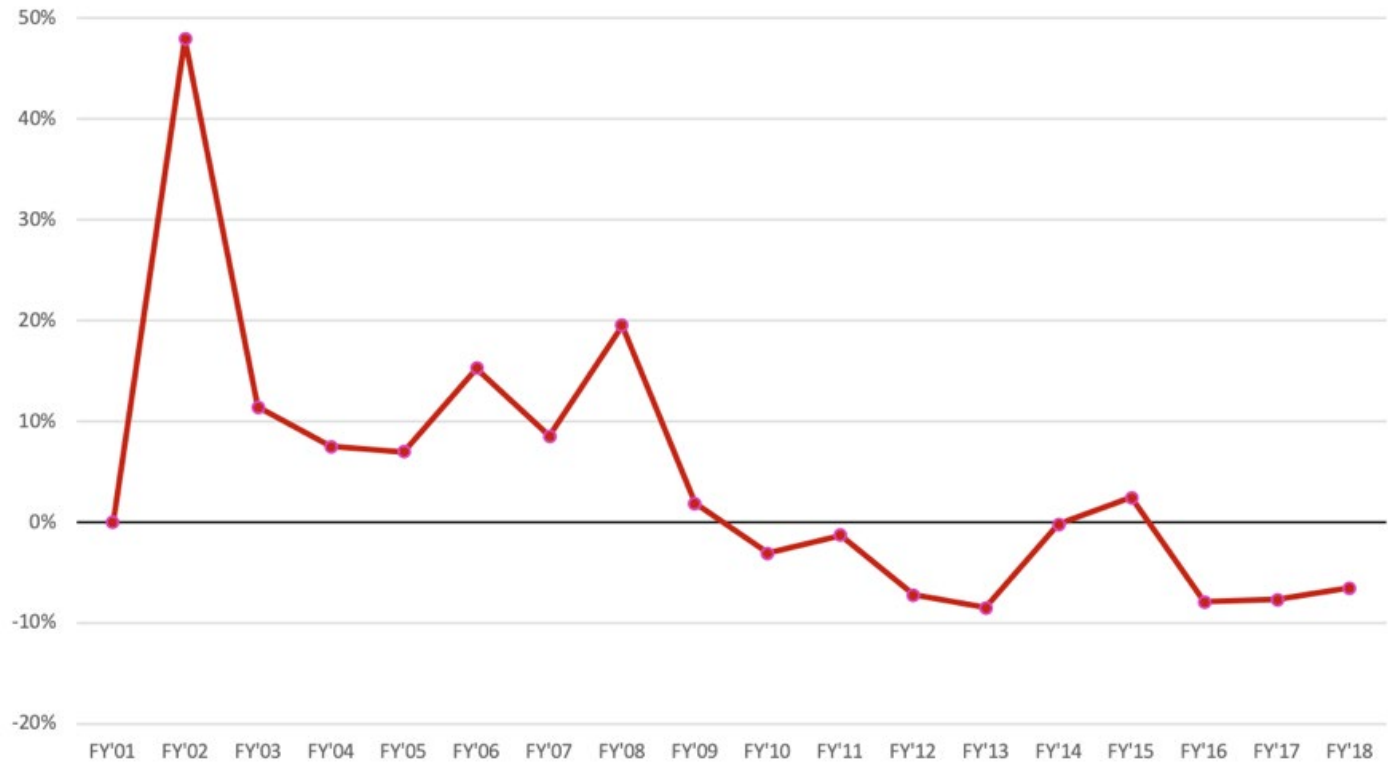


Figure 2. Percent change in U-Pass Sales. Changes in U-Pass sales have remained relatively negative since FY 09, but experienced a positive jump in FY 2015, shortly after the METRO Green Line opened.

### U-Pass Ridership

U-Pass sales and ridership are closely related to the academic calendar at the UMN. On a semester basis, students purchase or renew their U-Passes; during the summer, a smaller portion of students buy and use U-Passes. **Figure 3** shows the relationship of the UMN semester system on U-Pass sales and ridership, where ridership predictably declines during the summer months and during the winter and spring breaks. There is a general downward trend in both ridership and sales between 2010 and 2018. A marked change

occurred in 2014, coinciding with the opening of the Green Line LRT and three stations on the UMN Twin Cities campus. Prior to June 2014, 87% to 92% of monthly U-Pass rides occurred on Metro Transit buses. After this date, rides on Metro Transit buses accounted for just 52% to 77% of monthly U-Pass rides.

Students are also using their U-Passes for fewer rides on average. **Table 1** demonstrates that the percent decline in rides per card is less severe than the percent decline in total rides. The U-Pass fee in 2018 was \$114 per semester, which means

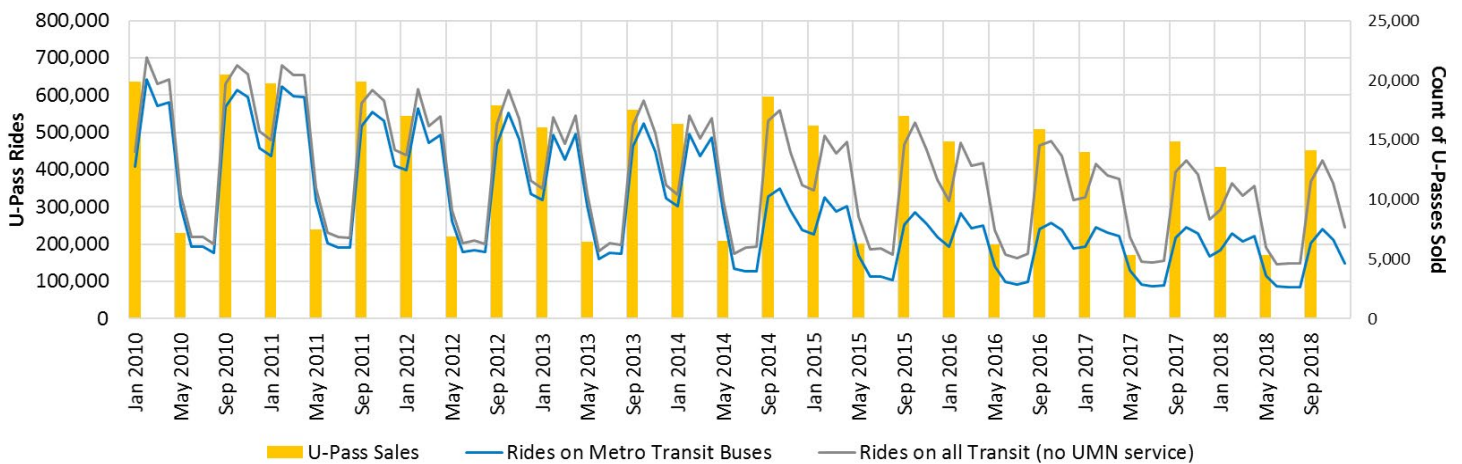


Figure 3. Monthly U-Pass ridership and semester U-Pass sales (spring, summer, and fall terms) from 2010 through 2018.

that in Fall 2018 the average pass-holder was paying \$2 per ride—equivalent to local bus fare outside rush hour. Despite the product’s heavy discounting, many students are probably not using transit frequently enough for the U-Pass to be competitive with other passes and fare payment methods.

**Figure 4** shows monthly ridership trends for six fare products. The introduction of 7-day passes and the stored value feature on Go-To cards coincide with a sharp decline in rides on 31-day passes. However, rides using 31-day passes and Metropass generally grew in recent years. College Pass, like U-Pass,

is seeing ridership decline. The product is similar to U-Pass except it is offered to students enrolled at other Twin Cities colleges and universities.

In late 2016, Metro Transit launched a mobile application allowing customers to purchase, store, and validate transit tickets on their mobile devices. In contrast to declining U-Pass sales, monthly ticket sales through the mobile app are increasing. Moreover, the number of unique active users is growing (**Figure 5**).

**Table 1. Comparison of 2010 and 2018 U-Pass sales and ridership by academic term.**

	<u>2010</u>			<u>2018</u>			Change in Rides	Change in Rides per Card
	Rides	Sales	Rides per Card	Rides	Sales	Rides per Card		
<b>Spring</b>	2,204,381	19,888	111	843,028	12,723	66	-62%	-36%
<b>Summer</b>	864,156	7,218	120	371,202	5,341	70	-57%	-26%
<b>Fall</b>	2,469,198	20,482	121	804,282	14,136	57	-67%	-31%



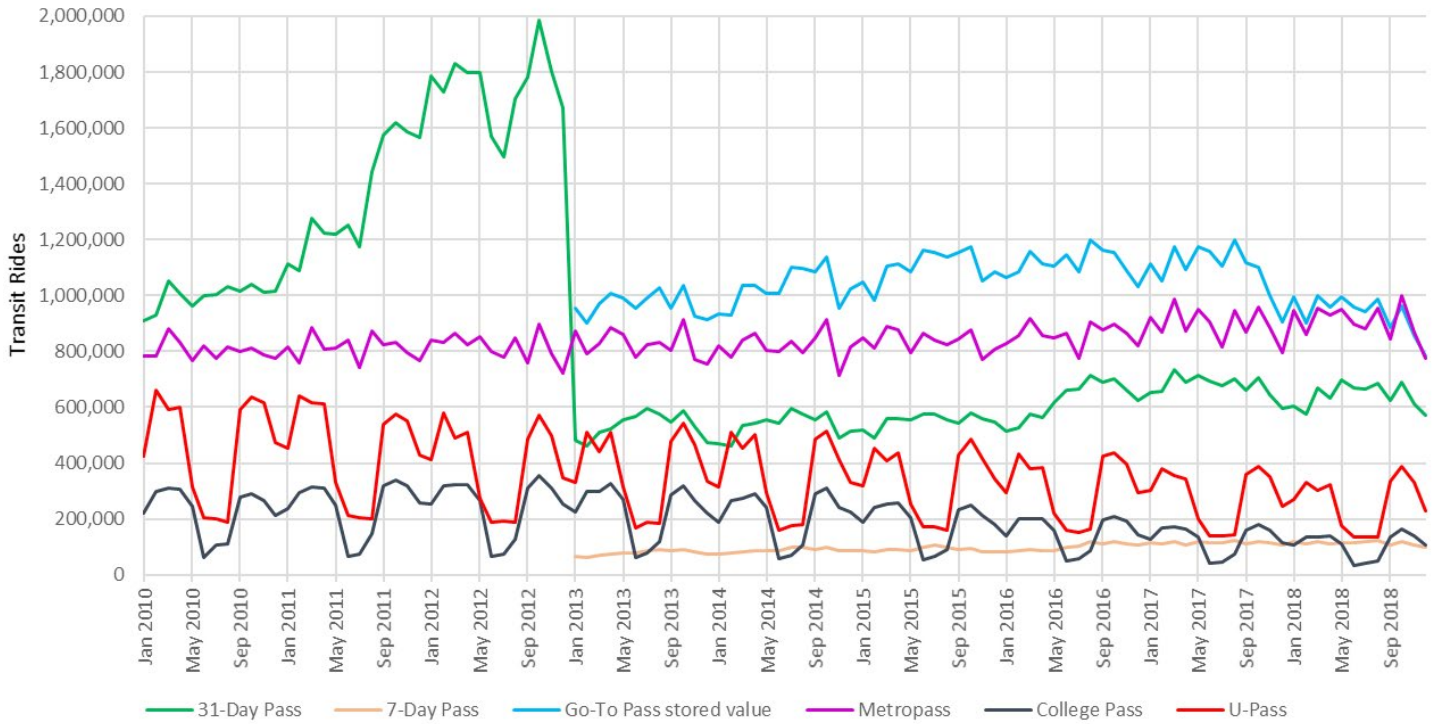


Figure 4. Monthly rides of various fare products, 2010-2018.

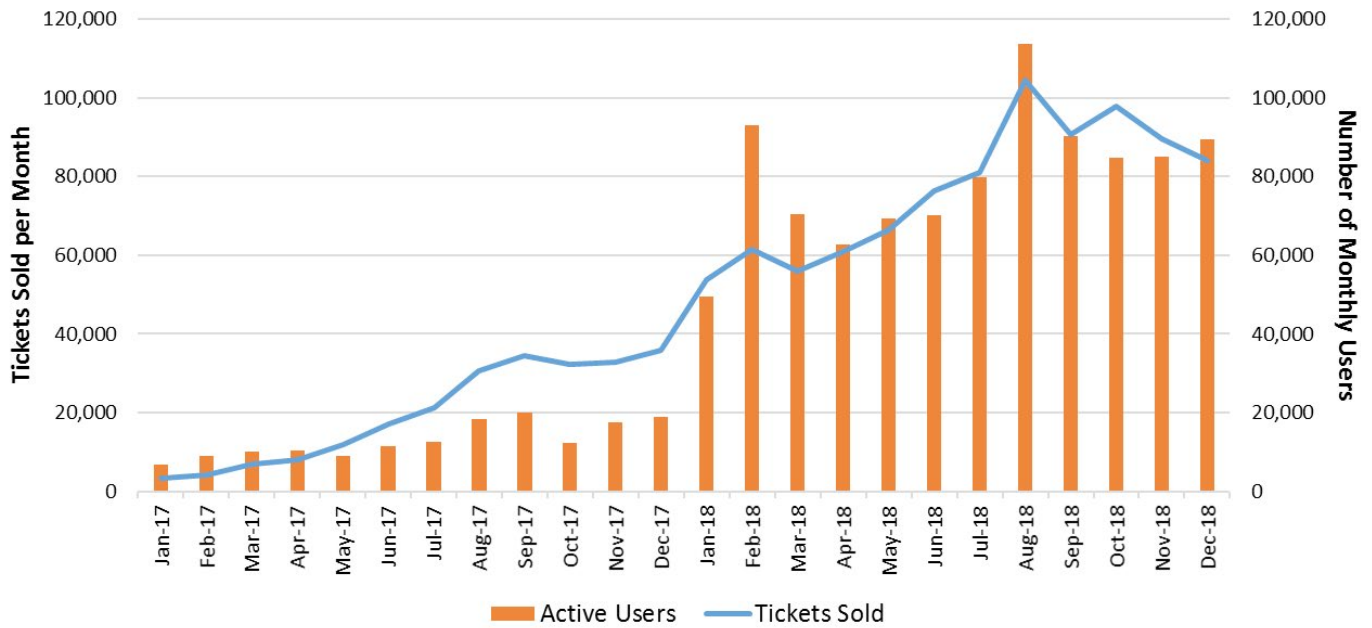


Figure 5. Monthly ticket sales and user activity through the Metro Transit mobile app.

## **PTS U-Pass survey report**

UMN Twin Cities Parking and Transportation Services (PTS) survey students on their U-Pass experience. This is a summary synthesizing the results of the surveys. The survey years include 2008, 2011, 2013 and 2016. The surveys in 2008, 2011 and 2013 targeted students who were current U-Pass cardholders and students who had purchased a U-Pass but did not renew it next semester. In 2016, the department made the decision to only send surveys to students who did not renew their U-Pass. Currently, students who do not renew their passes are the only recipients of the U-Pass survey email. Another change in the surveys was due to the implementation of METRO Green Line which prompted additional questions regarding students' use of the light rail transit (LRT) in 2013 and 2016 surveys.

Overall, student responses showed small changes in transit behavior between 2008 to 2016. Among those who were current U-Pass cardholders, most students who participated in the survey said they did not ride the bus prior to purchasing the U-Pass. The most common reasons included they did not need it, they used other modes of transportation (e.g. bike and car), and they did not live in the metro area before enrolling at the University of Minnesota. The results reported students used the U-Pass to get to and from school, for shopping, dining, visiting friends and family and entertainment. There was a high report for using the LRT to get to the airport and the Mall of America among students. Most students

reported riding the bus between one to 10 times a week compared to riding the LRT one to 10 times a month.

Students who did not renew their U-Pass also shared similar answers between 2008 and 2016. Many of the students who did not repurchase the U-Pass said it was because they either had graduated, studied abroad, did not use it enough, used another mode of transportation (e.g. car or bike) or no longer needed it. They were also asked what would convince them to buy it again, and an overwhelming number of students said they would consider it if it were more affordable. Other responses suggested that students would use it if there are more services available throughout the metro area and if it were more convenient to their schedules. Specific to the responses in 2016's survey, some students said they realized they did not need the U-Pass because they were only traveling within the Campus Zone Pass. Furthermore, a high proportion of students said they use the University's bus services such as the Connector and Circulator to get between campuses. Besides public transit and driving, another popular mode of transportation was ride-share with Uber and Lyft.

In all of the surveys, students were asked how they learned about the U-Pass program. The top answers included Orientation or other campus events and by word of mouth.

### **U-Pass Survey Highlights**

- Most students say they did not ride transit prior to purchasing a U-Pass.
- Students who did not renew their U-Pass say they would reconsider if the cost was more affordable.
- Students say they learned about U-Pass through word of mouth and campus events like Orientation.

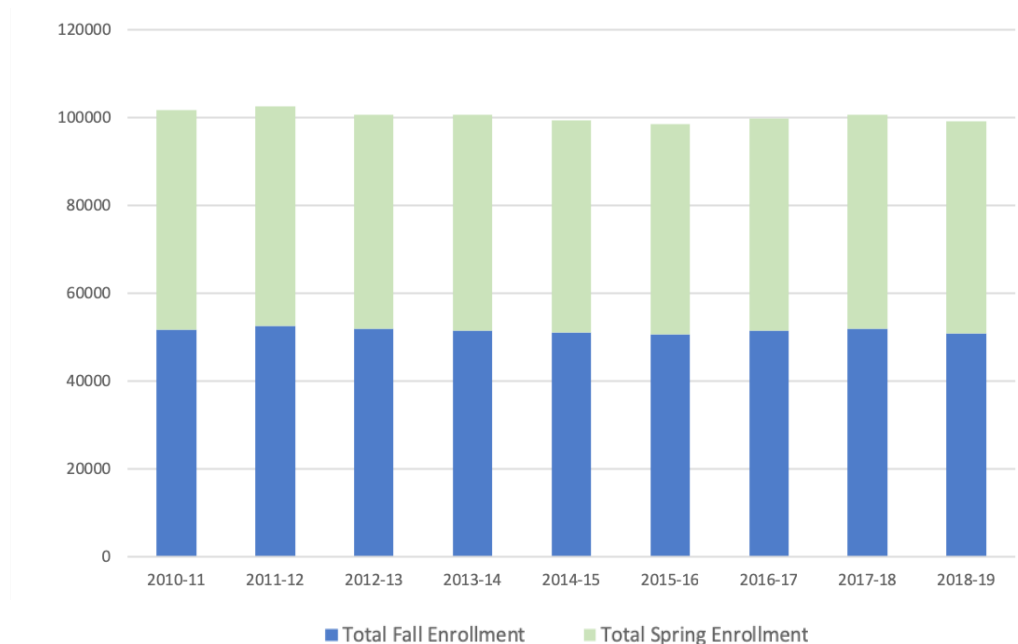
# UMN Today

*Learn how life and community are changing around the Twin Cities campus. Find out who attends UMN TC, how land uses are evolving, and what students are doing to get around campus.*

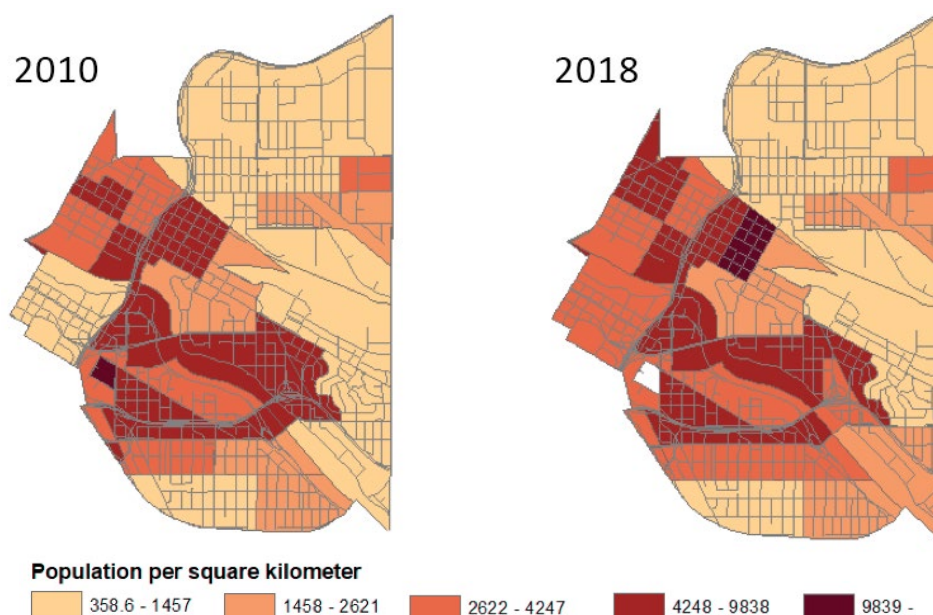
## Enrollment

Overall enrollment at the University of Minnesota Twin Cities campus was steady from 2010 to 2018. Fall 2018 enrollment was 50,943 compared to 51,721 in Fall 2010 and 51,147 in Fall 2014. Typically, Spring enrollment is several hundred to a few thousand students lower than fall enrollment (**Figure 6**). A notable trend is international students and students of color increased, respectively, from 4,967 and 8,291 in Fall 2010 to 6,363 and 10,214 in Fall 2017 (UMN, n.d.).

The areas surrounding the university have a high share of younger residents and a low average annual income. Over 50% of residents are between the ages of 18-24. Similarly, over 50% of households make less than \$35,000, and 68% of people ages 18-24 have incomes below the poverty threshold. Over 80% of residents rent. Only 47.6% of workers drive to work, which is significantly less than the nearly 80% of Minnesotans who drive to work alone. Over 27% of households do not have a car (MNCompass, n.d.).



**Figure 6. UMN-TC student enrollment, 2010-2019.** Student enrollment is slightly higher in the Fall semester compared to Spring semester. The total number of enrollees in the past 10 years have hovered around 100,000 showing little change.



**Figure 7. Change in population densities surrounding UMN Twin Cities campus, Minneapolis, in years 2010 and 2018. Densities are at the block group level.**

## Changing Land Uses

The neighborhoods surrounding the East and West Bank campuses changed significantly in the last 20 years, especially in the areas closest to campus. From 2000 at least 3,575 housing units were added to the Minneapolis neighborhoods surrounding campus. These new units make up 22.6% of all currently existing housing units in the University Community of Minneapolis (MNCompass, n.d.). Many of these new units replaced smaller scale housing or even office or commercial space surrounding campus. Along with the additional housing many of the new apartment buildings offered first floor retail space below which allow students to stay close to campus to meet their shopping needs rather than travel away from campus. While an imperfect metric, the Walk Scores of the Dinkytown, Marcy Holmes, University, and Cedar Riverside neighborhoods in Minneapolis are all in the top 25% of all neighborhoods in Minneapolis.

One dramatic example is the commercial strip along Washington Avenue on the East Bank has been transformed from mostly 1-2 story commercial buildings to large apartment complexes with commercial space on the first floor. Parts of Dinkytown are experiencing similar changes.

The university is transitioning from a commuter school to having many more students living on campus or directly off campus (Vraney, 2017). A local developer of student housing estimates that only 25% of students wanted to live near campus in the 1980s while 60% of students wanted to live near campus in 2014 (Schaefer, 2014; Lindeke, 2014).

**Figure 7** shows how population density at the block group level changed between 2010 and 2018 at the University and surrounding neighborhoods.



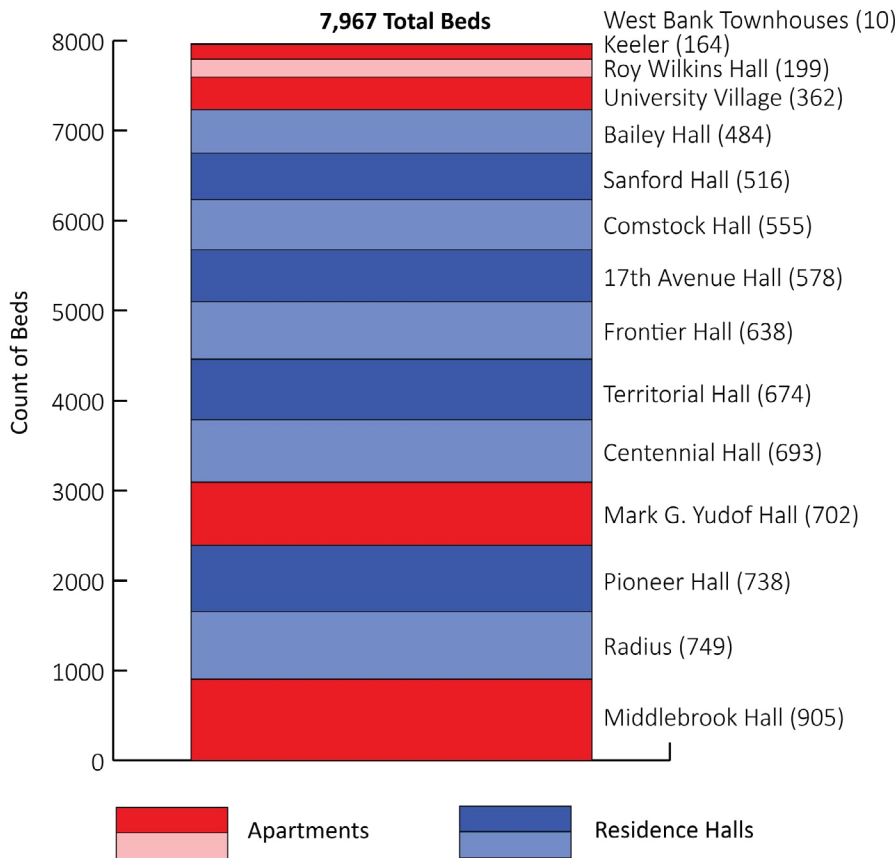
## New Housing Development

Long-time residents tell us that the Twin Cities campus is very different from what it looked like one or two decades ago. Not only is UMN adding campus housing, but developers are building more apartment units on and around campus.

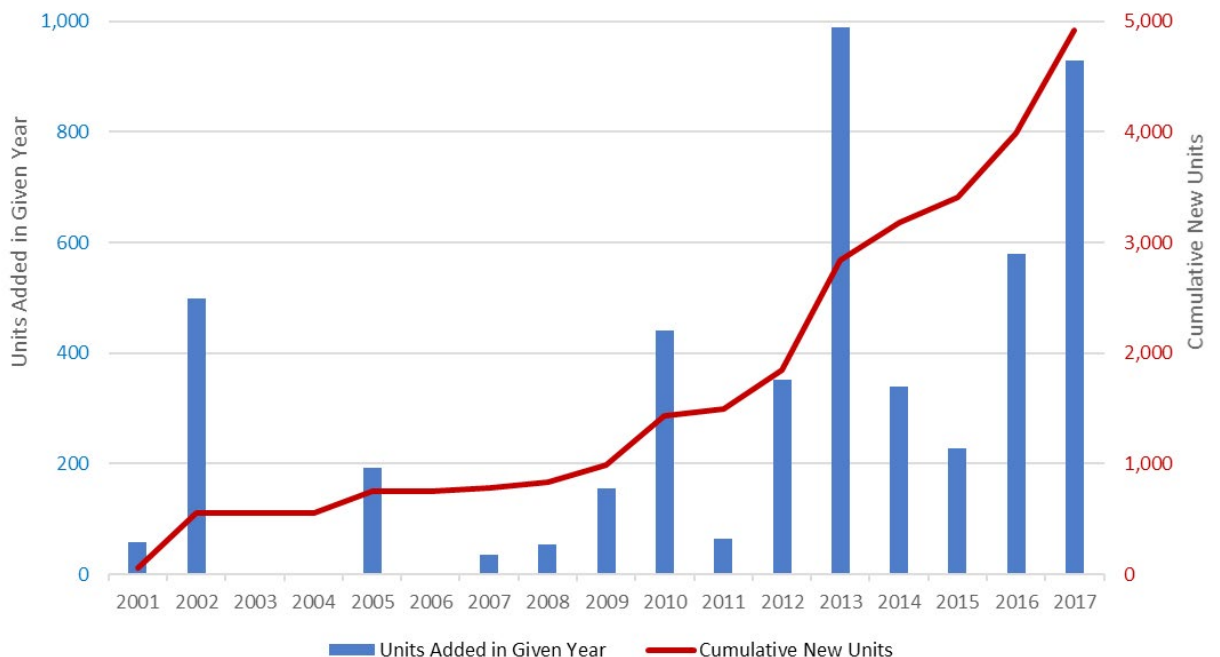
On campus, UMN provides a mix of traditional residence halls and newer apartments. **Figure 8** breaks down the distribution of housing (in beds) between halls and apartments.

While most residence halls are older buildings, UMN did construct additional housing since 2000:

- Middlebrook Hall - East Wing added 2001
- Keeler Apartments - 2002
- Mark G. Yudof Hall - 2002
- 17th Avenue Residence Hall - 2013
- Radius Apartments - 2015



**Figure 8. Count of beds provided by on-campus housing at UMN TC in Spring 2019. Includes traditional residence halls (dormitories) and UMN-managed apartments.**

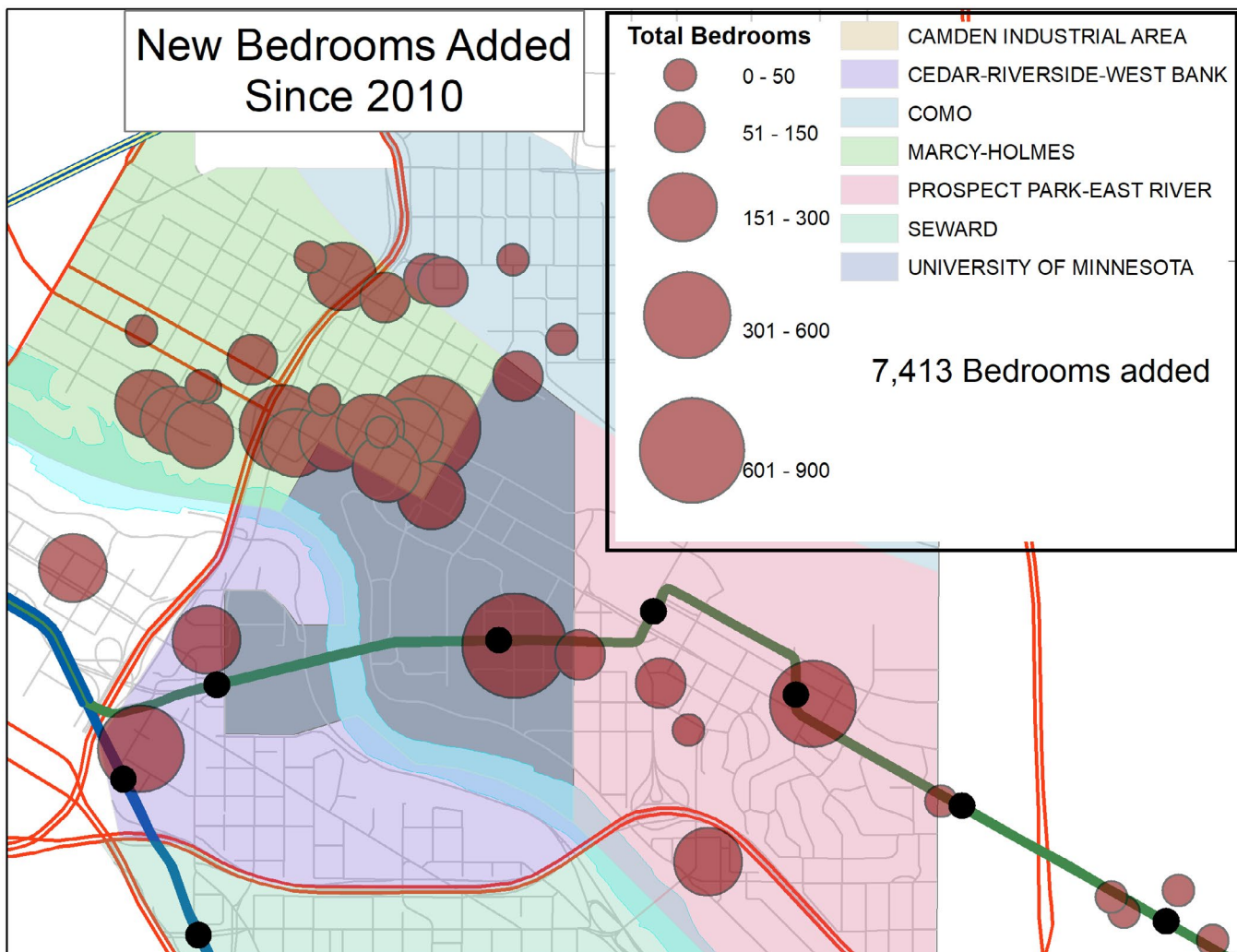


**Figure 9. New rental units in multifamily housing projects completed between 2001 and 2017 within approximately 1.5 miles from the UMN TC campus.**

Between 2001 and 2017, at least 44 apartment buildings added 4,914 units within 1.5 miles of the Minneapolis and St. Paul campuses at UMN TC. We were unable to track any new apartment construction completed in 2000.

**Figure 9** illustrates the rate that private development added rental units around UMN. In just the five years between 2013-2017, 21 projects added 3,064 units, over 62% of all privately-developed units added between 2001-2017. **Figure 10** illustrates where new housing was added and is a striking visual of how close to campus many of the new apartment buildings have been built.

The number of new housing units only tells part of the story because many units have multiple bedrooms. Similarly, just counting the number of bedrooms isn't the complete picture because double occupancy of bedrooms is common. Apartment websites list prices with shared bedrooms as an option and with shared bedrooms a single apartment could house 8 students. For example, The Marshall's 316 units and 881 bedrooms can house almost 1,300 students.



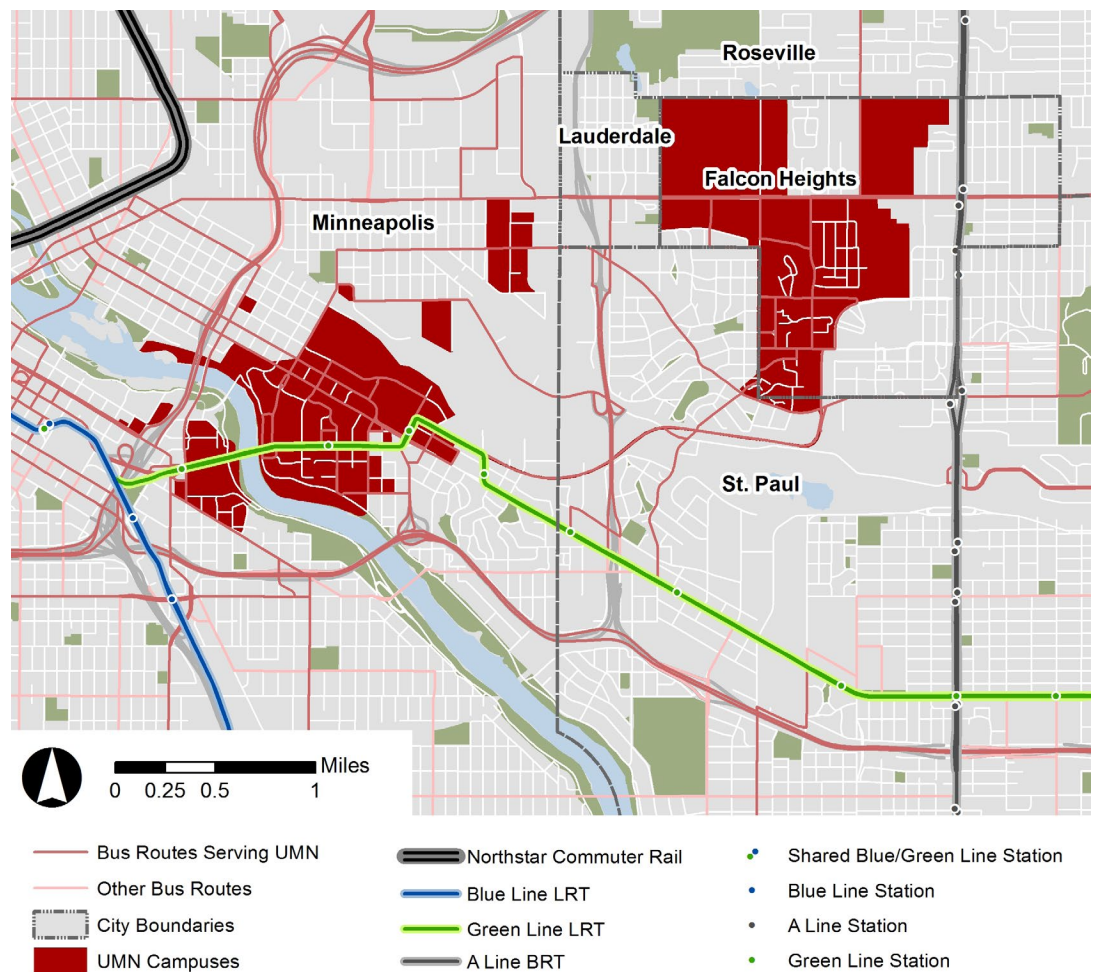
**Figure 10.** New rental bedrooms added around the UMN TC Minneapolis campus between 2010 and 2017. Includes new housing constructed near Green Line stations up to 1.5 miles from campus.

## Transportation on Campus

### Campus Transit Service

The UMN Twin Cities campus is located in a transit-rich area, especially the Minneapolis campus which is east of downtown and accessible by light rail (LRT). Three stations on the Green Line LRT are on the Minneapolis campus. The St. Paul campus is also near the A Line, a bus rapid transit line (BRT) that features frequent 10-minute headways and station amenities that provide a customer experience similar to riding LRT. **Figure 11** shows the geography of transit service in relationship to the Twin Cities campus.

Today, 27 bus routes directly serve the UMN Twin Cities campus, listed in **Table 2**. Direct service here means a route has at least one stop that is on campus. Providers include Metro Transit, the Metropolitan Council (which contracts out service to operator companies), the University, and suburban transit agencies. In addition to the Green Line, Route 2 provides high frequency service (trips every 15 minutes or better). Rt. 2 is frequent on the West Bank, but it is only frequent for half its route through East Bank.



Sources: Metropolitan Council, Metro Park & Trail Data Collaborative, University of Minnesota, MRCC Collaborative

**Figure 11. Transit service operating in 2018 at the UMN-TC and surrounding area.**

**Table 2. Overview of bus routes directly serving the UMN Twin Cities campus. Boardings are for stops within 0.25 miles of the Minneapolis or St. Paul campuses.**

Route	Type	Description	Provider	Spring 2018 average weekday boardings within 0.25 mi of campus
2	Local	Franklin Av - Riverside Av - U of M - 8th St SE	Metro Transit	2,343
3	Local	U of M - Como Av - Energy Park Dr - Maryland Av	Metro Transit	3,725
6	Local	U of M - Hennepin - Xerxes - France - Southdale	Metro Transit	856
7	Local	Plymouth - 27 Av - Minnehaha - 46 St Sta - 34 Av S	Metro Transit	183
61	Local	E Hennepin Av - Larpenteur Av - Arcade St	Metro Transit	217
87	Local	Rosedale - U of M St Paul - Cleveland - Highland	Met Council	261
111	Limited Stop	66th St - Chicago - Cedar - U of M	Metro Transit	40
113	Limited Stop	Grand Av S - Lyndale Av S - U of M	Metro Transit	190
114	Limited Stop	Excelsior Blvd - Uptown - U of MN	Metro Transit	260
115	Limited Stop	Grand Ave S - Uptown - Hennepin - U of M	Metro Transit	79
118	Limited Stop	Central Av - Lowry Av - U of M	Metro Transit	31
129	Local	U of M - Huron Shuttle	Metro Transit	61
252	Express	95 Av P&R - U of M	Metro Transit	109
272	Express	Maplewood - Roseville - U of M	Metro Transit	24
355	Express	Express - Woodbury - Mpls	Metro Transit	23
579	Express	Southdale - U of M	Metro Transit	59
652	Express	Plymouth Rd - Co Rd 73 P&R - U of M	Metro Transit	92
120	East Bank Circulator	Thompson Ctr - 5th St - Rapson Hall - Clinic & Surgery Ctr	UMN	192
121	Campus Connector	Thompson Ctr - Ridder - Jones-Eddy Ci - Blegen - Oak St	UMN	11,133
122	University Ave. Circulator	Rec Ctr - Sanford - Carlson - Wiley - Northrop Mall	UMN	4,701
123	4th Street Circulator	Oak St - 4th St - 10th Av - 19th Ramp - Coffman	UMN	3,472
124	St. Paul Circulator	Tway & Commonwealth SB - Hodson Hall - Soccer Fields - Cleveland/Como	UMN	272
695	Express	Chaska - Chanhassen - Mpls	SouthWest Transit	132
698	Express	Chaska - Chanhassen - Mpls	SouthWest Transit	165
774	Express	Station 73	Plymouth Metrolink	38
789	Express	Maple Grove Sta - U of M	Maple Grove Transit	43
795	Express	Midday - Northeast Plymouth	Plymouth Metrolink	4



In Spring 2018, average weekday boardings on these routes within a quarter-mile of campus totaled 28,705. Of this total, 8,553 boardings (30%) were on buses provided by Metro Transit and Met Council; 382 boardings (1%) were on suburban provider buses; and 19,770 boardings (69%) were on UMN buses. UMN buses are unique in that they exclusively serve stops on or adjacent to campus.

Between 2011 and 2018, ridership on and near campus declined for public transit routes directly serving campus (**Table 3**). (Public transit here refers to service provided by Metro Transit, Met Council, and suburban providers). Average weekday boardings on public transit buses declined by 13%, despite a growth in the number of used stops and direct routes to campus. The most popular stop in 2011 had on average 958 boardings per weekday, but in 2018 the maximum stop boarding was 3% fewer.

**Figure 12** makes a spatial comparison of average weekday boardings in Fall 2011 and Fall 2018 at the Minneapolis campus. In 2011, public transit ridership on the East Bank concentrated along 4th

Street SE and University Avenue, especially at the intersection of 15th Avenue SE. On the West Bank, ridership was strongest at stops outside Willey Hall and Blegen Hall. In the surrounding neighborhoods of Dinkytown, Marcy Holmes, and Como, eight stops within a quarter-mile of campus had between 101-500 average daily boardings; one stop had 553 average daily boardings.

The 2014 Green Line opening coincided with realignment of transit service to operate on Washington Avenue. In 2018, stop activity declined along 4th St SE and University Avenue and increased along Washington Avenue and Oak Street. On the West Bank, bus boardings at Willey Hall and Blegen Hall declined, but stop activity increased at the edge of campus along Riverside Avenue, 19th Avenue S, and Cedar Avenue. In surrounding neighborhoods, only six stops within a quarter-mile of campus had 101-500 boardings; no stops in this area had over 500 boardings.

**Figure 13** shows a less dramatic change in public transit boardings on the St. Paul campus between 2011 and 2018. Only four public transit routes serve the St. Paul

**Table 3. Change in bus ridership, stops used, and number of routes in Spring 2011 compared to Spring 2018. Does not include UMN-operated service.**

	2011	2018	Change
<b>Total Boardings</b>	11,896	9,245	-22%
<b>Maximum Stop Boarding</b>	2,360	1,056	-55%
<b>Count of Used Stops</b>	153	176	15%
<b>Count of Routes</b>	19	22	16%



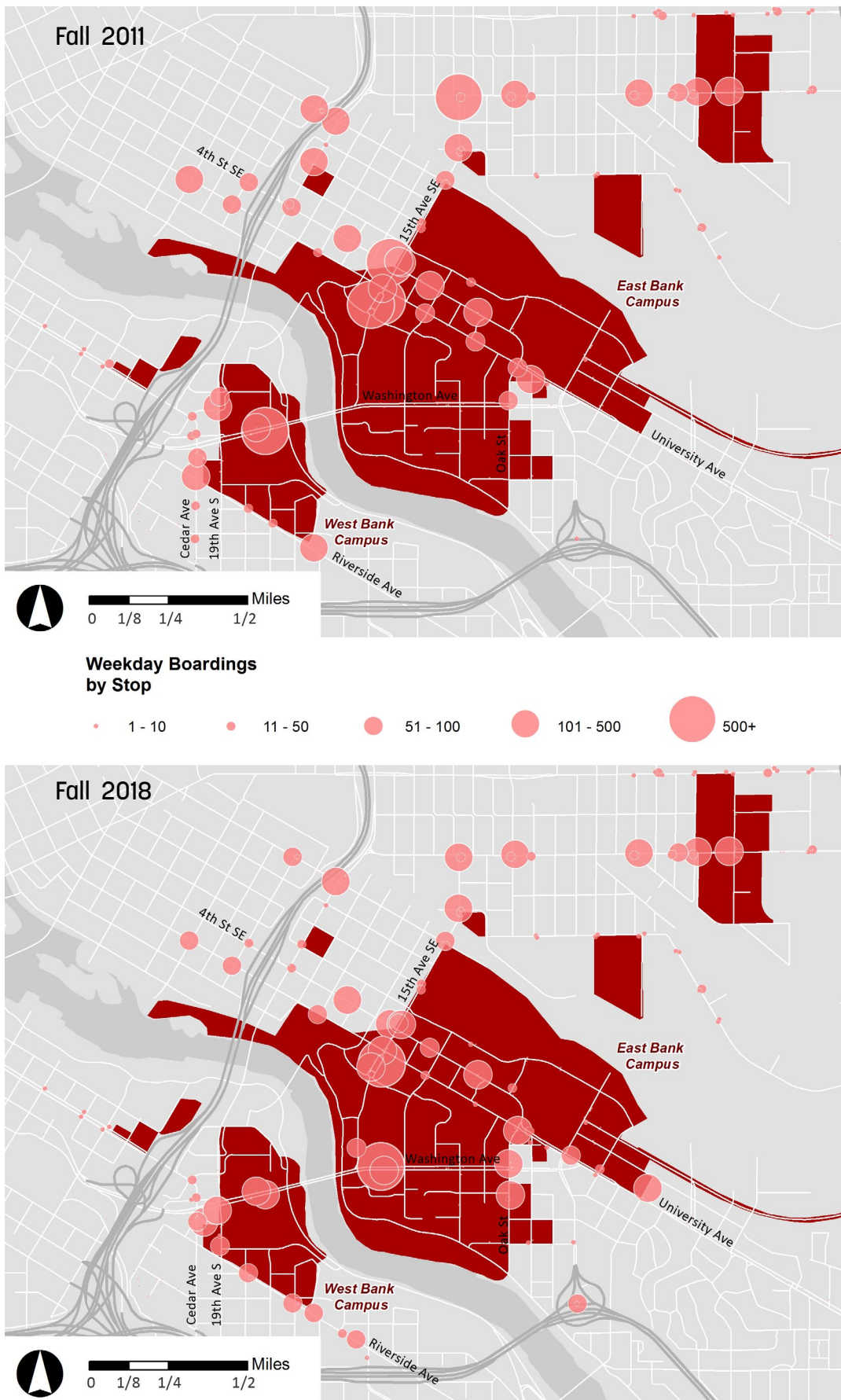
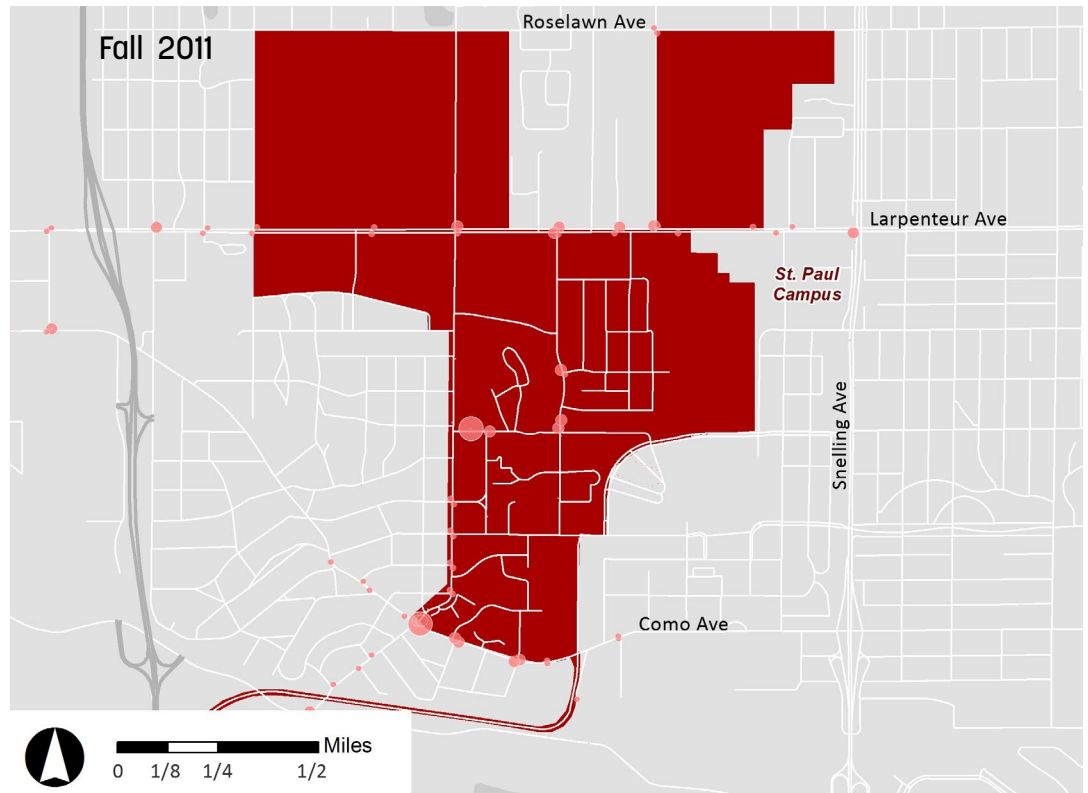
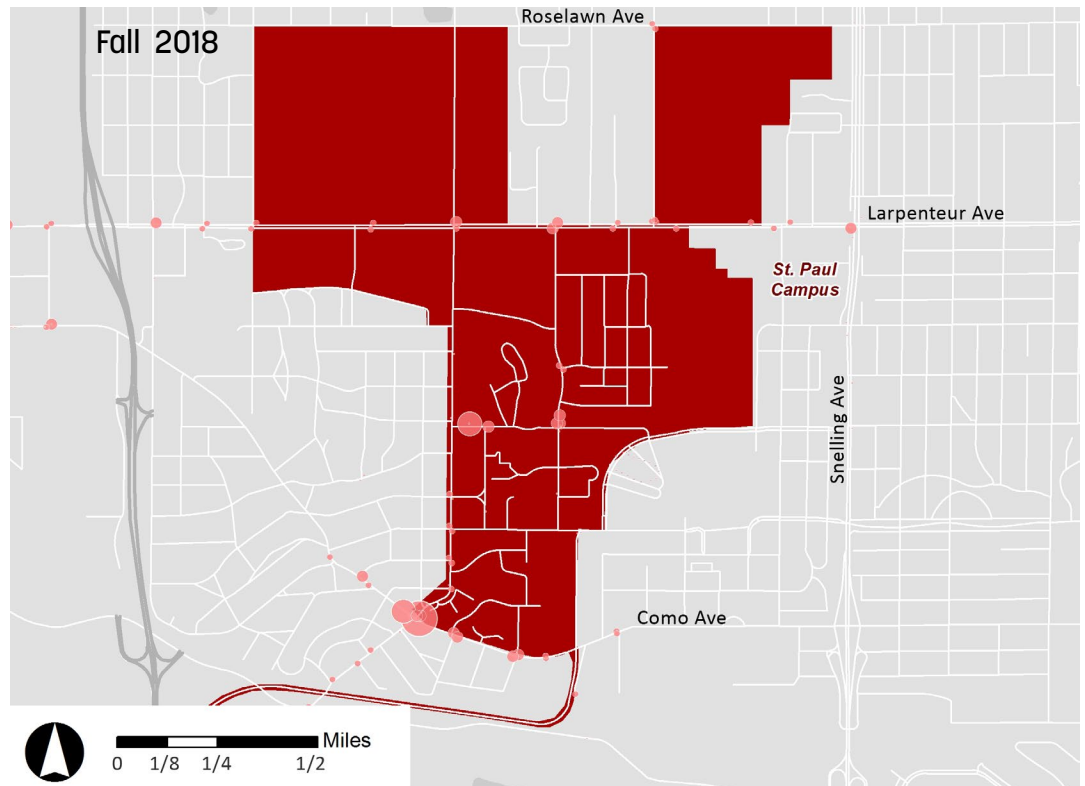
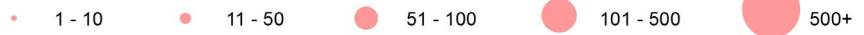


Figure 12. Average weekday bus boardings by stop in Fall 2011 (top) versus boardings in Fall 2018 (bottom) at the Minneapolis campus. UMN-operated services not included. Only includes boardings on routes directly serving campus. Stops are within 0.25mi from campus.



**Weekday Boardings  
by Stop**



**Figure 13. Average weekday bus boardings by stop in Fall 2011 (top) versus boardings in Fall 2018 (bottom) at the St. Paul campus. UMN-operated services not included. Only includes boardings on routes directly serving campus. Stops are within 0.25mi from campus.**



campus directly, compared to 21 routes that serve the Minneapolis campus. In 2011, the maximum average weekday bus stop boarding was 217 on the St. Paul campus; in 2018, this declined to 89 boardings.

UMN operates five bus routes serving 37 stops around the Minneapolis and St. Paul campuses. In Spring 2018, 56% of daily weekday rides on UMN buses were on the Campus Connector, which provides service to 13 stops on the West Bank, East Bank, and St. Paul campus. The University Avenue Circulator carried 24% of UMN bus rides on the West and East Banks at eight stops (plus three stops during late night service). The 4th Street Circulator carried 18% on the West and East Banks at seven stops. The East Bank Circulator and the St. Paul Circulator each carried 1% of rides.

Of all UMN bus boardings, 52% occurred at five stop locations in Spring 2018. The most active UMN bus stop was at Blegen Hall on the East Bank, with 3,138 average weekday boardings (16% of all UMN bus boardings). Coffman Memorial Union (12%), Carlson School of Management (9%), St. Paul Student Center (8%), and Oak St/University Avenue (7%) are the other busiest UMN stops.

**Figure 14** shows that the busiest public transit and UMN bus stops are located in the same areas. There are several locations where the UMN serves many more riders than public transit. Along one mile of University Avenue, five UMN stops exceed 500 boardings daily. In contrast, boardings at public transit stops along University Avenue are concentrated at 15th

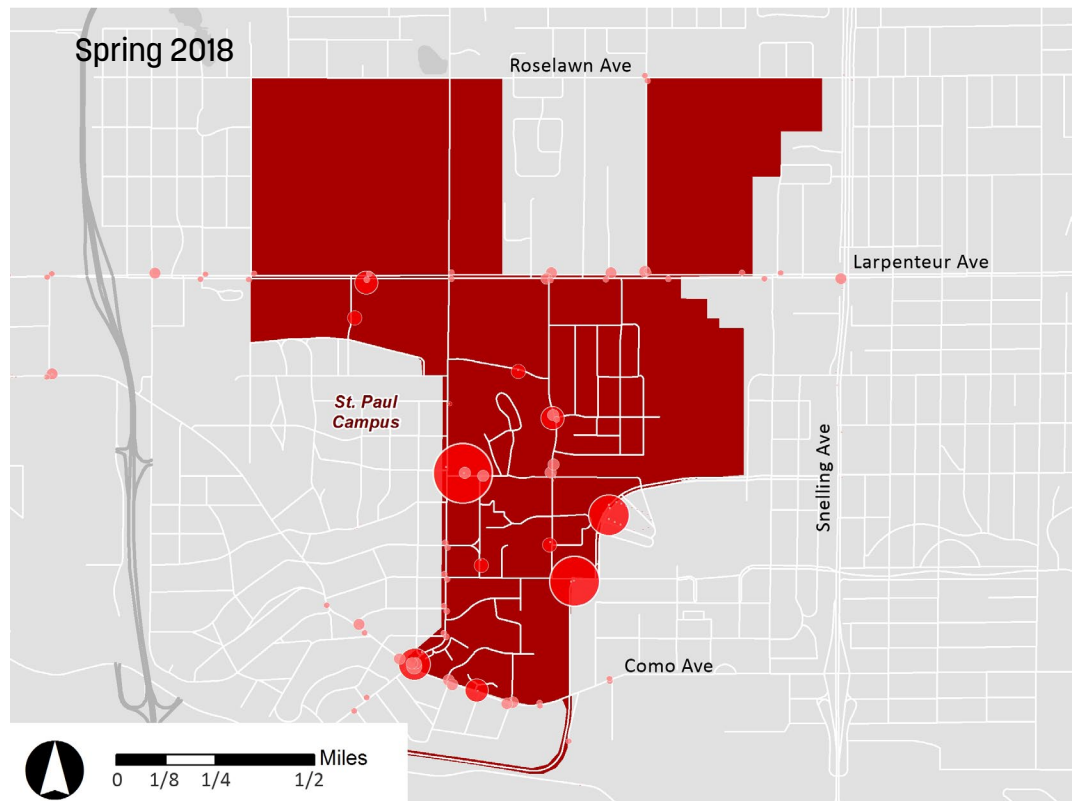
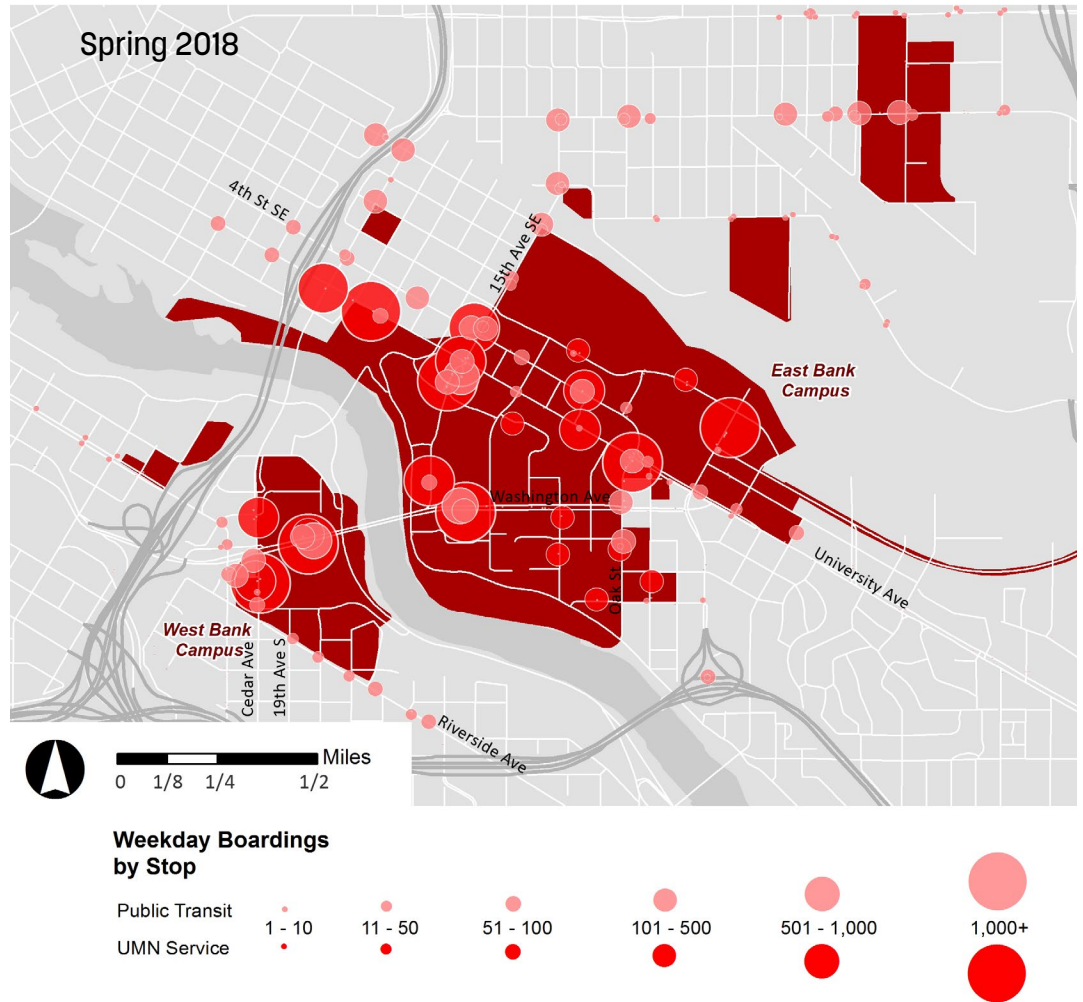


Image Source: Minnesota Daily



Image Source: University of Minnesota





**Figure 14. Average weekday bus boardings by stop in Spring 2018 for public transit and UMN-operated routes. Only includes boardings on routes directly serving campus. Stops are within 0.25mi from campus.**





## Mode Share

Biking on campus has increased steadily since tracking began in 2011. Fall bike counts in 2011 on a typical day were 6,900, which increased to 8,684 by 2016. The counts in 2016 were a 7% jump over the previous year. Overall biking in the city tripled since 2000. The university encourages cycling by adding more bike infrastructure to what is already one of the most cyclist-dense areas in the state. Parking and Transportation Services at UMN has a bicycling commuter rewards program that registered 4,500 bikes (Clarey, 2017). The program sets up 20 automated readers around campus that “zaps” the bicycles as they ride by. Student participants who reach a goal of 12 monthly rides are eligible for monthly prizes (UMN, n.d.). There are 6.45 miles of bike lanes, more than 9,500 bike rack spaces, and 433 secure bike parking spaces.

According to the Parking and Transportation Services’ Fundamental Facts and Figures 2017-18 annual report, University of Minnesota students have lower rates of taking public transit (excluding the campus shuttle) when compared to faculty and staff. Only 24% students take public transit versus 32% of staff and 40% of faculty. A roughly equal percentage of students drive alone to campus as take public transit, at around 23%. Compared to faculty and staff, students are much more likely to walk, bike, or take the campus shuttle to campus. Overall, 51% of students travel by these modes, compared to 33% of staff and 32% of faculty. The number of times people parked on campus increased over the last

8 years from roughly 50 million times to closer to 58 million times (Fundamental Facts and Figures, 2018). At the same time the percentage of people commuting to campus by driving alone decreased from over 50% to closer to 40%.

The number of transit rides to campus fluctuated over the years and is currently a little less than 40 million rides a year. Green Line construction and the redesign of Washington Avenue dramatically changed the arterial street from a 4-lane roadway to a transitway with generous bike facilities. Construction made traveling to campus by transit more difficult and less appealing, which resulted in a drop in rides.

U-Pass sales have consistently fallen over the last 8 years; Metropass sales for staff and faculty have fluctuated but dropped slightly overall.

### UMN ZAP Program

ZAP is a Twin Cities bike commuting program, and a special program exists for students at UMN. Participants can register special bike tags which ZAP uses to track rides. When a cyclist rides past one of 20 automated readers around campus, the equipment recognizes the tag and records the ride. Students who reach 12 rides in a month are entered into a monthly raffle to win one of 200 gift cards.

***But new housing and alternative modes are good things! What's the big deal?***

These trends in housing and transportation around campus are good problems to have. Students living closer to campus are taking advantage of opportunities, resources, and amenities located in and around their immediate community. Now that alternative modes are more widely accessible, students can choose modes that contribute less to traffic congestion and infrastructure wear and tear. This also means fewer transportation-related emissions that harm the environment and degrade public health. Overall, these are the types of changes that are positive for UMN and for the region.

Young adulthood is a critical time to influence transportation behavior and preferences. For Metro Transit, encouraging college students to ride the bus or train is also encouraging them to use transit later in life. After students leave college, they may no longer have a convenient walkable or bikeable commute. By providing opportunities to learn and ride public transportation, Metro Transit can ensure that more young adults will consider using transit as their preferred mode instead of driving alone.





# What Are Others Doing?

*Around the globe, institutions of higher learning offer student passes, including a universal pass product. Learn how these programs make a difference for communities, and what barriers impact students most.*

## Applications and Outcomes

Over the last couple of decades many universities around the country and abroad have implemented various student transit pass programs aimed to provide them with access to local transit at a low cost. Programs are typically established through a partnership with the university's local or regional public transportation authority, in which elements of the program such as pricing are negotiated and agreed upon.

Colleges see it as their responsibility to minimize their contribution to greenhouse gas emissions, road congestion, and physical inactivity due to car dependency (Shannon, Giles-Corti, Pikora, Bulsara, Shilton, & Bull (2006). Overall, U-PASS can support the goals of a university's transportation demand management strategy. The program also has great benefits for its riders. The greatest incentive for students is that they pay a one-time payment per semester or school year and receive unlimited access to public transit (Williams, M. E. & Petrait, K. L., 1993; Blechmore et al., 2011).

In order to better understand the factors influencing U-PASS sales

and ridership, this section reviews literature and studies conducted on similar programs, Universal Pass and Unlimited Access, to the U-Pass program at other colleges and university around student's commuting behavior.

### **Universal Pass**

The Universal Pass program is one solution to transportation problems that large campuses are facing. University of Washington-Seattle was one of the first U.S. campuses to implement the Universal Pass. The university was motivated to solve two growing problems: congestion and an increasing student population (Williams, M. E. & Petrait, K. L., 1993). After months of studying the current conditions of other campus' transit programs, the college's task force found that there were missing elements that could strengthen their transit plan (Williams, M. E. & Petrait, K. L., 1993). They included limited user access for faculty and staff and bus-only transit option. Consequently, the task force presented their final recommendation in which they called for the University to create a Universal Pass that would be affordable to students and staff

### How is a Universal Pass different?

Schools implement a universal pass program by applying a fee to all students. Since the cost is spread across the entire student body, the fee is lower than what it would cost for individual students to purchase a pass. While not everyone may use their universal pass, this approach makes transit accessible to more students by reducing cost barriers. U-Pass is not a universal pass since students must opt-in.



Image Source: King County Metro

while providing participants with a wide range of transportation options through their university identification card (Williams, M. E. & Petrait, K. L., 1993).

As a result of the program, the University reported a sizable reduction of vehicle trips and increase in bus ridership. Furthermore, the report found that Universal Pass participants were increasing the usage of the other features of the new program, including the Night Ride Program and Commuter Tickets.

### **Unlimited Access**

Institutions may have their own Unlimited Access programs, like BruinGO at the University of California, Los Angeles (UCLA). This program is similar to the U-Pass at UMN-TC. Through a partnership, the university pays the local transit agency to subsidize program member passes. The objective of UCLA's program was to (a) increase bus ridership to campus, (b) reduce vehicle trips to campus, and (c) reduce parking demand on campus (Brown et al., 2003).

Brown et al. (2003) evaluated the program's effect on students and employees' travel behaviors. They found that after the program was implemented in 2000, bus ridership among faculty and staff rose from 7.6 percent to 13.1 percent. New bus riders contributed 57 percent to the increase in ridership. The BruinGO program had similar effects on ridership among students. In general, the evaluation found that bus ridership rose while driving rates fell. Their data also showed that of the student ridership after implementing BruinGO, 29 percent were new riders.

As a result of the BruinGO program, the campus saw a decline in parking demand in its first year. The number of students on the parking waitlist dropped from 3,969 to 2,637. The number of employees and students driving to campus alone also decreased by more than 1,000 (Brown et al., 2003).

### **Are student passes effective?**

At UW-Seattle and UCLA, the answer is YES! Both schools experienced reduced rates of driving to campus and increased transit ridership. At UW-Seattle, riders also increased use of additional transportation services. At UCLA, new riders contributed 57% of bus ridership growth.





## Barriers and Motivators

### *Distance*

In 2010, the U-PASS was proposed at the University of Western Australia (UWA) as a solution to sustainability, equitable access and parking on campus (Bleechmore et al., 2011). Prior to its implementation, researchers Giles-Corti and L'Anston conducted the UWA Commuting Survey. The survey asked a series of questions looking at commuting behaviors, “barriers and motivators for acting commuting, and confidence in using active transport modes” (Bleechmore et al., 2011, pg. 5).

In the UWA study, the researchers found a positive relationship between distance and car-based travel (Bleechmore et al., 2011). For example, they found more staff traveling to campus by car because they lived further away from the University. Consequently, the proportion of staff with a parking permit was higher than the proportion of students. Conversely, the proportion of students who used public transportation was greater compared to staff. The authors noted that the data did not provide sufficient evidence to show a relationship of car-based travel to other factors like inconvenience, parking, and attitudes.

A study of students at UCLA suggests similar results to the study of UWA students. Students who lived more than 20 miles away from campus were less likely to use active modes such as walking, biking and public transit (Zhou, J., 2012). Instead, most of these students relied on commuting by car to campus; almost all of the students

who lived further than 40 miles only drove to school. However, the data captured a number of students who chose to drive to campus but also lived in areas where most students opted for alternative modes. Additional information supports the influence of distance on student travel behavior: those who walked or cycled to campus had a travel time of 30 minutes or less.

In another study, conducted in 2003, on the travel behavior of UWA students and staff, researchers found results similar to Giles-Corti and L'Anston's report. Shannon et al. (2006) found that from their sample population, students and staff who lived beyond 1 km (0.62 miles) from campus exhibited significantly higher rates of driving in a single occupancy vehicle (SOV). This was especially true for respondents who were not using active modes of transportation and were not contemplating about switching or were contemplating about switching over in the next 6 months. Furthermore, when respondents were evaluated for the potential to change from SOV to active modes, the barriers of distance and time were more important to them even if they were aware of the benefits. This inferred a reluctance in potential to change among those who were contemplating the switch to active modes (Shannon et al., 2006).



## Demographic differences

Shannon et al. (2006) found a difference in motivation between staff and students' transportation choice. While staff did not perceive one motivator as more than "somewhat important," the most salient motivator was "improvement to health/fitness." On the other hand, the most common motivator among students was "the potential to save money and avoid the need to find parking."

In Zhou's (2012) research on UCLA students, she found that student's choice for alternative modes declined with an on-campus parking permit. Respondents with a transit pass used other modes of transportation including biking, walking and riding the public bus. The researcher assumes that holding a transit pass encourages other active modes while increasing bus ridership during bad weather days. Furthermore, Zhou's (2012) research suggests that undergraduates are more likely to bike or walk to campus compared to graduate students. This assumption is aligned with her finding that as age increased, public transit usage decreased. A few explanations included more job and household responsibilities, higher car dependency, and more disposable income for personal vehicles (2012).

## Attitudes

Researchers at the University of Bergamo, Dalmine, Italy surveyed college students about their attitudes and propensity to use sustainable transport modes (Cattaneo et al., 2018). Sustainable transport mode involves choices that are eco-friendly and reduce contribution to pollution, congestion, and negative health outcomes. The researchers argue that alternative modes are temporary fixes to environmental problems; instead, influencing the students' attitudes and perspective of these issues can change travel behavior. The researchers narrowed their focus on three preferences that affect transport mode choice: safety, comfort, and sustainability. Results showed that when students' preference for comfort was high, sustainable transport mode choice was low. Similar to previous studies, students who chose driving were influenced by distance and parking supply. Students who were more sustainably-conscious chose alternative modes including carpooling, buses, and trains.



Image Source: Metro Transit

# Vision & Strategies

*Metro Transit can promote transit ridership among UMN students by implementing strategies that emphasize emerging multimodal travel, student lifestyle, streamlined technology, and enhanced stakeholder partnership.*

## In 2039, our community will be different and better...

In the midst of a nationwide decline in bus ridership, Metro Transit is stepping up to tackle one of its most vexing questions: How do we make sure college students keep riding the bus? Undergraduate and graduate students alike purchase a U-Pass in the thousands every semester at the University of Minnesota Twin Cities. The U-Pass unlocks unlimited rides during the term, providing students with access to housing, jobs, shopping, services, and (of course) campus. For students without a car or who are considering going car-less, the U-Pass can mean a world of difference. Yet, students are opting for the U-Pass less and less. Through a series of strategies and interventions, our project aims to reinvigorate bus ridership among UMN students. In 2039, our Twin Cities community will be different and better because together Metro Transit and UMN acted on a shared vision of mobility and access—for today's riders and tomorrow's generations.

This section focuses on four thematic visions for transit in the Twin Cities:

- **A Multimodal Future**
- **Transit as a Lifestyle**
- **Integrated Technology**
- **Lasting Partnership**

Each theme opens with a story about what our communities, our cities, and our daily lives might look like 20 years in the future if we invest in making these visions come true. **Table 4** provides an overview of thirteen recommended strategies for achieving these visions. Following each vision story, read on for details about relevant tools, including:

- **Benefits**
- **Challenges**
- **Complimentary Strategies (some tools only)**
- **Sources of Cost**
- **Coordination**

**TABLE 4. Matrix of recommended strategies. Cost Key: \$ – Under \$1,000    \$\$ – \$1,000 to \$25,000    \$\$\$ – Over \$25,000**

Theme	Action	Cost Level	Coordination Level	Metro Transit Lead	UMN Partners	Other External Partners
Multimodal	Convert to U-Pass	\$\$	High	Revenue Operations	Parking & Transportation Services (PTS) Minnesota Student Association (MSA)	
Multimodal	Rollover U-Pass across semesters	\$	Medium	Revenue Operations	PTS MSA	
Multimodal	Build in incentives for transit use	\$ - \$\$	Low	Marketing	PTS MSA	
Multimodal	Co-locate transit and shared mobility devices	\$	Low	Engineering & Facilities	PTS Facilities Management	Shared Mobility Device companies (SMDs)
Multimodal	Bundle transportation memberships	\$\$	High	Revenue Operations	PTS	SMDs Transportation Network Companies (TNCs)
Lifestyle	Implement an information campaign	\$	Low	Marketing Customer Outreach & Engagement	PTS MSA Orientation & Transition Experiences (OTE)	
Lifestyle	Strategically target marketing efforts	\$	Low	Marketing Customer Outreach & Engagement	PTS MSA OTE Career Services Housing & Residential Life International Student & Scholar Services	
Technology	Integrate U-Pass and U-Card	\$\$\$	High	Revenue Operations	PTS	
Technology	Develop a cross-platform app	\$\$\$	High	Revenue Operations	PTS	SMDs TNCs
Partnership	Create a U-Pass coordinator role	\$ - \$\$	Med - High	Depends on implementation	PTS	
Partnership	Spearhead a student advisory board	\$	Medium	Customer Outreach & Engagement	PTS MSA	
Partnership	Pursue a data sharing initiative	\$	Low	Strategic Initiatives	PTS Office of Institutional Research	
Partnership	Invest in bus stop amenities and maintenance	\$\$-\$\$\$	High	Engineering & Facilities	PTS Facilities Management	Local governments

## VISION: A Multimodal Future

At the University of Minnesota Twin Cities, Sander was accustomed to riding the bus or train for trips he couldn't easily bike. He liked being able to get from place to place with minimal fuss. Many of Sanders peers thought similarly, and rates of driving to campus declined precipitously among students. With ever-increasing student densities around campus, it no longer makes sense to students to drive anywhere when they could walk, bike, or hop on a bus. Metro Transit began adding new and improved bus service on campus, and UMN sped up its efforts to redevelop its parking ramps and surface lots into new uses like academic buildings and student housing. Sander recalls when the last surface parking lot on campus was converted into a new transit center at the heart of campus in 2030. The Gopher Transit Center is a state-of-the-art facility that integrates bus, rail, bikes, and shared mobility devices—needless to say, it was an instant hit among students. As students flocked to board Metro Transit buses, U-Pass sales soared as well.

Metro Transit and UMN's joint efforts to encourage transit use among young adults is paying off in 2039. Demand for parking throughout the Twin Cities is at a historic low, while worker preference for riding the bus is at an all-time high. Former students who once held U-Passes are highlighting transit access

and Metropass availability among their top criteria in job searches. Sander now works in Downtown Minneapolis, where his office sits on top of a redeveloped parking ramp. There is no longer surface parking anywhere in Minneapolis, and developers are buying up the last parking ramps for more productive re-use projects. In Sander's neighborhood, the city replaced excess on-street parking with generous sidewalks that easily accommodate bus shelters, benches, and trash receptacles.

Students like Sander who eschewed driving the past two decades are now members of the workforce in 2039, and they vote with their dollars and feet. This cohort promotes more walkable, transit-friendly urban forms throughout the Twin Cities. They shape new trends in workplace and neighborhood environments, including the abandonment of parking amenities in favor of transit amenities. Thousands of acres formerly dedicated to parking are now available to for housing, retail, schools, and services. Communities are healthier, better connected, and more vibrant with less parking and growing options to bus, bike, and walk.





**Strategies**

- Convert to Universal Pass
- Rollover U-Pass across semesters
- Build incentives for transit use
- Co-locate transit and shared mobility devices
- Bundle transportation memberships





Image Source: Metro Transit

## Convert to universal pass

**Recommendation:** *Replace the traditional U-Pass with a product that is by default provided to all students and included in tuition.*

To purchase or renew a U-Pass, students must pay a fee each semester. Some students think the current cost (\$114) is too high for how often they expect to ride transit. However, upperclassmen are more likely to live off-campus and need to travel for jobs, internships, and errands. Transitioning to a universal pass would spread the cost of the program among all students and reduce barriers associated with purchasing a pass or paying fare.

### Benefits

A universal pass provides transit access regardless of how often a student expects to ride a bus or train. Current U-Pass users can continue riding but at a reduced cost. For students who are interested but reluctant to purchase a U-Pass, taking transit will become an easier decision because they already possess an unlimited pass. Further, the lower per-student cost of the universal pass will translate into a good deal for students who ride transit just once a week or a few times a month.

### Challenges

Developing a cost-structure that works for both Metro Transit and UMN is important to ensuring a universal pass product is feasible. Further, the pricing needs to be acceptable to students, whose support is necessary for implementing the pass as a tuition cost. Piloting the program can help provide data and feedback, but this may take months or years to determine if and how implementation should occur.

### Sources of Cost

Planning and coordination will be primary sources of cost. UMN may incur additional costs from subsidizing a universal pass.

### Coordination

Planning the universal pass and negotiating contract terms will require high levels of coordination with UMN PTS. Further, engaging students during this process is necessary to ensure that development and implementation of a universal pass occurs with broad student approval.

## Rollover U-Pass across semesters

**Recommendation:** *Modify product to enable newly purchased U-Passes to be valid across semesters if purchased after the first day of the semester.*

Currently U-Passes are only good for a semester term length. Some students purchase their passes after the semester starts and receive discounts on passes due to the earlier missed usage. We propose charging students who register after the start date pay the full pass but for each day missed at the start of the semester, a day is added to the U-Pass expiration date which extended it into the next semester.

### Benefits

Some students only ride transit seasonally and are reluctant to purchase a U-Pass if they expect to bike or walk most of the semester until the weather turns. This encourages U-Pass sales so students feel they are getting a greater value from their U-Pass. Whereas students may be reluctant to pay cash for a ride in a semester they choose not to purchase a U-Pass, now from the start of their purchase they can ride an unlimited amount which reduces barriers to ridership and encourages more rides.

### Challenges

This requires an additional amount of work to administer. There is a potential risk that students who would normally purchase two passes would only need one for the semester. We believe it is more likely that they would normally only purchase one pass, for the spring semester, and this makes things easier and more attractive to them. Students would also feel they are getting the full value of a U-Pass no matter when they purchase it.

### Sources of Cost

Planning and coordination will be primary sources of cost.

### Coordination

This would require moderate coordination to record the start date of individual passes and manage flexible expiration dates. Metro Transit Revenue Operations staff and PTS would need to work together to exchange purchase date and pass expiration dates. Collaborating with MSA will also be essential to gaining student support for and input on this implementation.

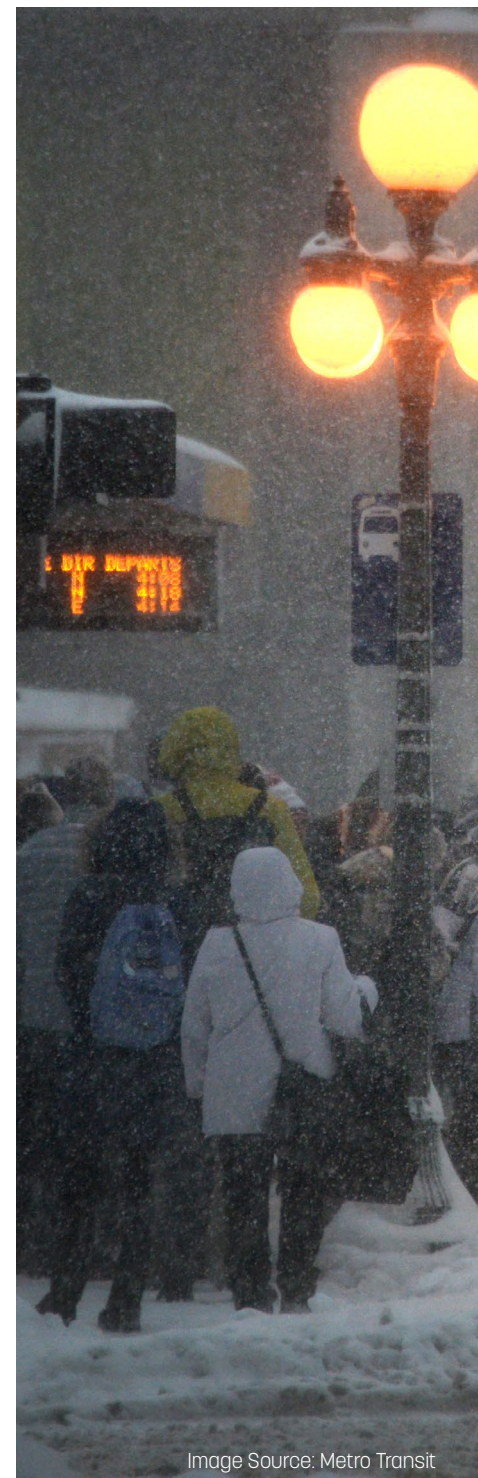


Image Source: Metro Transit





Image Source: Metro Transit

## Build in incentives for transit use

**Recommendation:** Create incentives for regular transit usage similar to the Zap program for cyclists.

Students who purchase the U-Pass may not be using it to its full value for various reasons including weather and convenience. An incentive program could track how often a student uses their U-Pass during the semester; at the end of the semester, if a student's number of trips reaches a specified threshold, they would become eligible for a prize or raffle. We suggest that the prizes are attractive to students in order for the program to be truly incentivizing. Incentives could include discounts on UMN products/services (e.g. bookstore gift card) or a discount towards their next U-Pass purchase.

### Benefits

Students who hold U-Pass cards would be incentivized to ride transit more often. As they become more drawn to the benefits of the program, they may begin to share the program with their friends and classmates; and it's been shared by multiple sources that word-of-mouth marketing is considered an effective strategy.

### Challenges

It could require additional resources from both agencies. Staff time could be required to organize the logistics of the program and monitor its effect on student ridership. The price to market the program and acquire prizes may become costly. Furthermore, if not enough students are aware of the incentive program it would not produce the anticipated outcome of increased ridership.

### Complementary Strategies

The program may be most effective if it is led by a U-Pass Coordinator. Additionally, it could pair well with the information campaign as part of its marketing strategy.

### Sources of Cost

New cost would come from purchasing prizes regularly and marketing efforts.

### Coordination

Both UMN and Metro Transit Marketing should work together to ensure that logistics are aligned for the program to operate effectively and accurately. MSA can also advise on implementation.



## Co-locate transit and shared mobility devices

**Recommendation:** *Coordinate between organizations to locate scooter and bikeshare parking close to transit.*

Students are looking for more flexibility in their transportation choices, especially for short trips around campus. Fortunately, UMN has a robust network of bike and pedestrian infrastructure that supports and attracts multimodal travel. This also means more opportunities to locate SMD stations near transit. Treatment should be applied to all bus stops and light rail stations on campus where there is ample sidewalk space to designate parking for SMDs. Parking areas should be strategically located so as not to obstruct transit vehicle boarding and alighting.

### Benefits

Co-locating SMD parking with transit stops and stations will provide more flexible transportation options to people on campus. As SMDs become more ubiquitous, transit riders can easily access scooters and bikes at convenient locations for their first- and last-mile travel needs. The ease of chaining together transit trips with scooter or bike trips can also produce potential travel time savings.

### Challenges

Dockless devices pose operational challenges to transit, since scooters and bikes can obstruct the boarding and alighting areas at bus stops and light rail stations. Dockless parking areas should be close enough to stops and stations so that users can conveniently access the parking area, but placed outside the path of pedestrian traffic.

### Complementary Strategies

Consider implementing this strategy in alongside a plan to generally improve bus stop maintenance and amenities. This will encourage SMD users to transfer to a bus at a stop where waiting is a safe and comfortable experience.

### Sources of Costs

Minimal costs are required to stripe dockless parking areas. Higher costs may incur from locating docking stations near stops.

### Coordination

Metro Transit Engineering & Facilities Planning will need to work with UMN to develop an agreement over co-locating dockless parking areas near transit. This also requires cooperation from dockless device companies, which currently contract with UMN to provide bikes and scooters on campus.



Image Source: Metro Transit

## Bundle transportation memberships

**Recommendation:** Partner with SMD companies to create a program that includes unlimited rides for transit and SMDs.

Through one purchase, students can access unlimited transit rides and ride SMDs for up to 60 minutes without additional charges. SMDs are not available year-round due to winter weather, but students would be able to use transit during colder months.

### Benefits

A bundled product will increase the attractiveness of riding transit and bikeshare. Students who would rather bike to class in nice weather can ride a bike into campus in the morning and ride a bus home when it starts to rain. This would be a very visible program and increase the number of SMD memberships. This strategy can also address sustainability goals at Metro Transit and UMN.

### Challenges

Coordinating with Nice Ride may be difficult because of the potential need for additional billing of rides of more than 60 minutes. The fee for the combined product would likely need adjusting in order to reimburse Nice Ride for the additional members. Nice Ride has within the last two years offered a University of Minnesota membership for students for only \$10. This offers a modest increase and when combined with universal purchase for students, the advantages of bulk discounts and efficiencies are taken advantage of.

### Complementary Strategies

Combine bundling with a universal pass so students have multiple modes to choose from when traveling to campus or exploring the city. Co-locating SMD facilities at stations and bus stops can also augment this program.

### Sources of Costs

Moderate costs will arise from planning, coordination, and program management, depending on how costs are distributed among partners.

### Coordination

This would take considerable staff time and coordination between all three entities. The of University of Minnesota, Metro Transit, SMD companies would all need to be at the table as stakeholders.





Image Source: City of Minneapolis

## VISION: Transit as a Lifestyle

Rishi grew up in Maple Grove, MN, a Twin Cities suburb. As a teen, Rishi drove practically everywhere: school, his part-time job, after-school track practice, and to visit his friends. When UMN TC accepted his college application, Rishi was thrilled—but also nervous to move to the city. On top of that, Rishi’s parents wouldn’t let him take one of the family cars to college. How else would he get around?

Fortunately for Rishi, who enrolled at the University in 2022, there were many people who helped him figure out how to ride transit. At first, Rishi didn’t think he needed to buy a U-Pass since he lived on campus. His peers assured him that while there were lots of reasons to stay on campus, there were so many reasons to get off campus as well!

At first, Rishi took the light rail on weekends to get to the grocery store. Then he started riding the bus with his friends to fun and interesting places around the cities: cafes, restaurants, and shops. Soon, Rishi was riding the bus nearly everywhere, including his new internship across town. He even figured out how to use transit to get to his parent’s house in Maple Grove. By the time that Rishi was getting ready to graduate, his parents offered to give him one of the family cars. “It doesn’t fit into my lifestyle anymore,” Rishi declined.

In 2039, Rishi is 38 years old and married with a five-year-old child. Rishi and his partner, Mackenzie, are both transit-savvy people and together never owned a car. While they considered relocating, the couple chose the Twin Cities because they knew they could live close to high quality transit in just about any neighborhood. In addition to riding the bus to their jobs in Downtown St. Paul and Bloomington, Rishi and Mackenzie take turns dropping off and picking up their child, Lydia, from school. Riding the bus with Lydia is invaluable to Rishi and Mackenzie because Lydia will learn to one day ride transit on her own.

As a teenager, Rishi didn’t know he would become a lifelong transit rider. Yet, through his formative college experience he formed a deep appreciation for the enriching opportunities that transit offered. Not only did Rishi adopt the bus as his primary mode of transportation, he becomes a role model and influencer for those around him. Through intervening in the transportation habits of young people today, we can shape their preferences tomorrow. In turn, these individuals will affect entire networks of people, and bring us all closer to a transit-oriented future.





**Strategies**

- Implement an information campaign
- Strategically target marketing efforts





Image Source: Metro Transit

## Implement an information campaign

**Recommendation:** Create an information campaign on how to use transit and where to go.

Students new to the Twin Cities or public transit may feel intimidated by the system or have negative feelings attached to it. An information campaign can specifically address the questions *How do I use transit? Where do I go? What are the benefits?* Students can feel better informed and more confident in choosing transit. This recommendation is intended to augment existing marketing strategies. This includes modifying existing campaigns to target specific student information needs and engagement opportunities.

### Benefits

Students who are not familiar with local public transit would benefit from learning about transportation tools and gaining everyday skills to ride transit. They can learn how to use the app or bus maps to travel off campus for entertainment or work. The more that students become aware of the benefits of public transit, the more they will support transit as an important public good in the Twin Cities.

### Challenges

Marketing strategies and finances may need to be restructured to develop an information campaign. It may take more than an informational campaign to address students concerns about using public transit. Additionally, it may also be hard to identify and connect with students who would most benefit from the information campaign.

### Complementary Strategies

A U-Pass Coordinator would be key in coordinating the efforts of an information campaign. Also, targeted marketing would be useful to ensure that information reaches the students who would most benefit from the campaign.

### Sources of Cost

Minimal cost would be accrued. An information campaign could just be added to existing marketing efforts.

### Coordination

The UMN would primarily partner with Metro Transit Marketing to develop the information campaign. More specifically, Orientation and Transit Services and PTS could work together to develop a strategic plan for creating the core of the campaign and implement it with support from Metro Transit Marketing. MSA should also advise on implementation.

## Strategically target marketing efforts

**Recommendation:** Create more targeted marketing campaigns for different groups that are more likely to benefit from transit.

Advanced marketing should target students by class standing, neighborhood, work/internship status, international status, and housing status. Marketing should focus greater attention on upperclassmen, who are more likely to live off campus and use transit regularly compared to first-year students. Location-based social media marketing can deliver tailored content, such as advertising transit services to social media users who are likely UMN students and spend considerable time off campus.

### Benefits

Highly-tailored messages can more effectively reach students who are most likely to benefit from transit. While a number of resources currently exist for students seeking information, a more proactive marketing approach will reach students more directly and with more sensitivity to their travel preferences. This would result in growth in student ridership and U-Pass sales.

### Challenges

Metro Transit or UMN may need to purchase new social media marketing tools and provide appropriate training. Sustaining coordination with various UMN offices may also require significant staff time, including developing and implementing enhanced marketing materials.

### Complementary Strategies

Consider combining this strategy with creating a U-Pass coordinator role. Bundled memberships or built-in incentives may be specifically marketed to students most likely to benefit from these new programs.

### Sources of Costs

New costs may be incurred from purchasing new marketing tools, as well as data collection, analysis, and marketing development.

### Coordination

Metro Transit will primarily partner with PTS Marketing. It should also develop more direct relationships with MSA and other UMN offices such as Career Services, Off-Campus Housing, Orientation & Transition Experiences, and International Student & Scholar Services in order to develop targeted programming and materials.



Image Source: Metro Transit



## VISION: Integrated Technology

Erika remembers when the U-Pass integrated with the U Card, UMN's student ID. It used to be a hassle to remember to bring her U-Pass to class and to activities. As an undergrad, Erika frequently forgot her U-Pass at home, and on a few occasions begrudgingly paid the replacement fee for a lost card. When Erika enrolled as a graduate student, the U-Pass technology was built into the U Card, and now she had one fewer piece of plastic to worry about losing. In 2039, Erika is an assistant professor at UMN, and is excited to see that not only is the U-Pass still a popular choice for students—there are far more tools available to help students get where they need to go.

Back in the day, Erika needed to check a handful of mobile applications to figure out how to get anywhere—when she needed to leave her apartment, how long her trip would take, how much would it cost, and by what mode. It was a bit of a headache to hold in her head all the possibilities while she swiped between apps. Now she sees students use a single app to plan their trips. The app was jointly developed by UMN students, Metro Transit, and other transportation companies in order to provide students with the most accurate information to make travel decisions. Recently, the app was piloted for use among the general public, and Erika tried it out. She loved being able to see travel

options that combined transit with a transfer to scooter, or routes from the nearest dockless bike to a light rail station.

Technology is fully integrated into every transit trip from deciding where to go, tracking the vehicle, paying the fare and planning a return journey. No longer do students need to carry extra cards with them to pay transit fares as now the U Card doubles as a Go-To card that can store unlimited ride passes or stored value depending on the students needs. Almost every bus stop has additional amenities to make waiting more comfortable. Information about where the bus goes and real time information on when it will arrive is available to riders to make riding transit easier than ever



**Strategies**

- Integrate U-Pass and U-Card
- Develop a cross-platform app





Image Source: Metro Transit

## Integrate U-Pass and U-Card

**Recommendation:** Continue to investigate creating the capability of having a U-Card function as a Go-To card.

Combining the U-Pass and UCard into one tool increases the attractiveness of purchasing a U-Pass. Students would be able to carry just one card that could be used for both functions.

### Benefits

The combination of the two cards reduces the barriers to using transit. When these barriers are reduced students will be more likely to use transit, whether that is for individual rides or U-Pass. Anything that simplifies ease of access for students will increase ridership.

### Challenges

Combining the cards may be technologically difficult to meet the needs of both the University of Minnesota and Metro Transit. Additional and extensive coordination would be required to combine these two separate cards into one. This would require large amounts of staff time and investments into purchasing and printing new cards. This approach has been attempted several times over the years but has not been implemented. We encourage the continued investigation and investment in staff time to attempt this solution.

### Sources of Costs

Costs will derive from developing technology that can integrate U-Card and U-Pass functions. Producing these new cards may also incur costs, especially in the early years of implementation if new production processes are introduced.

### Coordination

Metro Transit Revenue Operations would need to work not only with Parking and Transportation Services but also with University of Minnesota officials involved with the production and distribution of UCards.



## Develop a cross-platform app

**Recommendation:** *Either create an app or integrate a mobile app that works across PTS and Metro Transit transportation options.*

There is room to improve the functionality of transportation apps like the Metro Transit App. Multiple platforms currently exist to provide users with transportation information and purchasing options. Integrating these products within a single mobile app will help users make better-informed decisions and allow users to more easily choose the right transportation solution for their trip.

### Benefits

Being able to use one application to see all of your transportation options will reduce barriers to students using transit. This will increase the attractiveness of transit and encourage more U-Pass sales. Students would see information for different travel modes, such as SMD locations and NexTrip times, and they could select the option that works best for them.

### Challenges

Creating an integrated mobile app would require significant levels of coordination and investment. A consultant may be necessary to develop the tool. Integrating TNCs and SMDs has advantages, but the product would need to fairly represent all travel options.

### Complementary Strategies

Coordination with bike share and scooter share companies could be integrated so students can quickly see all of their options for transportation.

### Sources of Cost

Staff time to develop and support the mobile application would be required. It is enough of a project that additional employees may need to be hired. Another solution is hiring a company to do the work for Metro Transit but that involves significant expense.

### Coordination

Metro Transit will need to coordinate with UMN as well as transportation companies operating on campus, which could potentially include TNCs and SMDs. Distributing costs, establishing each organization's responsibilities, and managing development are all efforts that require a high level of cooperation.



Image Source: Metro Transit

## **VISION: Lasting Partnership**

The U-Pass started off with a grant close to the turn of the century that was designed to encourage students to ride transit more often. At first only select students would purchase the subsidized transit pass but the program has since expanded to universal coverage for all undergraduate students. Graduate students also participate in the program at record high rates. With such a high usage rate among students, Metro Transit is able to offer a terrific deal to students who want the freedom to access the Twin Cities metro without driving.

Transit service around the University has increased in quality and quantity. With many more students riding transit around campus, Metro Transit has increased the frequency of existing bus routes and added new routes to serve the needs of students. New limited stop routes cover the Twin Cities and quickly drop students off at campus. Arterial Bus Rapid Transit lines connect popular destinations for students, like Downtown and Uptown, with on campus and off campus housing. Light rail continues to be a popular choice to commute to campus and now students can live in the southwest suburbs of Minneapolis and have a one seat ride to campus thanks to the extension of the Green Line.





**Strategies**

- Create a U-Pass coordinator role
- Spearhead a student advisory board
- Pursue a data sharing initiative
- Invest in bus stop amenities and maintenance





Image Source: University of Minnesota

## Create a U-Pass coordinator role

**Recommendation:** Create a specialized position within Metro Transit whose role is to coordinate U-Pass marketing, research, and student engagement.

Many staff members at Metro Transit and UMN have duties directly related to the U-Pass, but these responsibilities are diffused across roles and departments. A U-Pass coordinator role would help to centralize U-Pass-related efforts. This may be a new part-time position, or a set of responsibilities given to an existing employee. The role emphasizes collaboration with UMN, especially PTS and MSA, but also other offices and academic departments that would be interested partners.

### Benefits

Designating a U-Pass coordinator with broad oversight and responsibilities will support higher levels of collaboration between Metro Transit and UMN. This role will streamline communications between the two organizations and promote transparency and information sharing. The primary benefit is stimulating joint efforts related to the U-Pass to improve the product, marketing, sales, and ridership.

### Challenges

The role is likely to change over time, especially as transportation services evolve on campus. For example, the coordinator role may expand its responsibilities beyond the U-Pass to include other UMN-centered transit strategies like the existing Campus Zone Pass or new bundled membership with other transportation companies. Metro Transit will need to expand or alter this role as necessary.

### Complementary Strategies

This role could be combined with a data sharing initiative to enhance collaborative outcomes. The coordinator role could also provide oversight of data sharing.

### Sources of Costs

Hiring for a new position would incur greater costs than allocating these responsibilities to an existing employee. Job training may also be an additional expense. Fewer costs would be associated with assigning responsibilities to an existing employee.

### Coordination

In creating this role, Metro Transit will need to work with UMN to develop a set of expectations and a mutual understanding of the coordinator role.

## Spearhead a student advisory board

**Recommendation:** *Promote the organization an advisory board comprised of UMN students who will aid decision-making processes.*

While the Minnesota Student Association (MSA) provides a student voice in transit-related decisions at UMN, leadership responsibilities are diffused across many campus issues. A student advisory board dedicated to transit issues would help sustain and invigorate dialogue between the UMN student body and Metro Transit. An advisory board could consist of self-appointed or elected members who meet with Metro Transit staff once a month on campus.

### Benefits

Creating a student advisory board will promote ongoing student engagement around issues relevant to Metro Transit. Further, regular meetings with Metro Transit staff will encourage greater collaboration and foster positive relations with members. In turn, actions developed jointly with the student

advisory board may carry greater legitimacy among the student body.

### Challenges

Metro Transit may not have much direct influence over the process of creating and maintaining a student advisory board. Their primary responsibility would be promoting the creation of the advisory board, which may emerge as an independent student organization, a sub-division of MSA, a group overseen by PTS, or some other form.

### Complementary Strategies

An advisory board could be implemented alongside a new U-Pass coordinator role. This staff member would have the capacity to work closely with the student board and ensure that this group is engaged effectively.

### Sources of Costs

Forming the student advisory board will not incur any direct costs, but there may be minor expenses for each meeting (e.g. staff time and travel, food and refreshments).

### Coordination

Metro Transit will need to work with UMN and students to spearhead an advisory board. After the group is created, Metro Transit must dedicate staff to attend meetings and manage correspondence with the advisory board.



Image Source: University of Minnesota





Image Source: Metro Transit

## Pursue a data sharing initiative

**Recommendation:** *Metro Transit and PTS can benefit by improved data sharing regarding transportation and land use statistics.*

While doing stakeholder interviews it was revealed that there is not a complete exchange of information. Staff at Metro Transit would like to know more about PTS statistics such as parking usage and availability. Other data that when shared would benefit both organizations are parking volumes, the number of housing units and bedrooms around campus, and bus route and stop activity. A data sharing initiative could include implementing a data sharing platform accessible to both Metro Transit and PTS.

### Benefits

Sharing information helps Metro Transit better plan bus service and coordinate infrastructure upgrades. This can also improve collaboration between Metro Transit and UMN to study transportation on campus and develop new and improved transit solutions.

### Challenges

When speaking with Metro Transit employees we gained the impression that PTS may be reluctant to share some of that information. Balancing the potential additional workload may be difficult for staff who already are busy with other commitments.

### Sources of Cost

This initiative would require additional staff time to communicate and share information. Hiring an additional person would not be necessary but an increased workload is possible and staff time may need to be reallocated. There would likely be little to no additional costs for supplies or equipment, unless new data-sharing software needs to be purchased.

### Coordination

Several Metro Transit departments have an interest in learning more about what data PTS has available. Revenue Operations, Marketing, and Strategic Initiatives could all benefit from increased knowledge of PTS operations.



## Invest in bus stop amenities and maintenance

**Recommendation:** *Increased coordination with the University and Metro Transit to improve bus stop amenities and maintenance.*

Studies conducted by departments at UMN suggest that maintenance and amenities available at a bus stop contribute to a transit user's experience. By including benches, shelter and bus information it can increase a transit user's tolerance to waiting for the bus and bring them as customers. Similarly, students whom we interviewed expressed concerns about the absence of safety measures (e.g. snow removal, proper lighting) at popular student bus stops, which can hinder a student's decision to choose public transit.

### Benefit

Students can feel more safe using transit especially at night when they are leaving class or the library. Simply removing snow at bus stops can make transit more accessible for wheelchairs and those carrying multiple loads. It would also mitigate the risk of students getting injured from getting hurt. Other measures to make students feel more comfortable using transit could also increase ridership throughout the year.

### Challenges

Adding or updating amenities and maintaining bus stops comes with a big price tag. It would cost a lot to add shelters, lights, proper bus information, etc. Determining the funding source can be difficult and contentious. This is not a short term solution because it requires a lot of planning, involving stakeholders and following institutional processes.

### Source of Cost

All things related to amenities, maintenance and labor requires cost.

### Coordination

High level of coordination among institutions including municipalities, Metro Transit and UMN to ensure that everyone is on board and official procedures are taken.



Image Source: Metro Transit

## Where Do We Go From Here?

The facts are clear: students at the University of Minnesota-Twin Cities are buying fewer U-Passes and riding with them less often. Housing development and emerging transportation options are both interlocked with this phenomenon.

Thousands of students can now live on or close to campus in housing that did not exist 20 years ago when the U-Pass was first implemented. What was once a commuter campus in 2000 is today a bustling residential campus. It is a dense, compact, and vibrant environment rich with amenities. The University continues to add campus housing while private developers construct new apartment buildings on vacant or redeveloped land.

In recent years, the University has invested its resources in supporting the everyday needs of an increasingly centralized community. Pedestrian improvements, bike infrastructure, and campus shuttles make it easier than ever for students to get where they need to go. Private companies are also serving student transportation needs by providing shared mobility devices and ride hailing services. Whereas in the

past students primarily chose between driving and taking the bus, students today have a greater array of choices to meet their travel needs and preferences.

These recommended strategies for promoting transit ridership acknowledge that while challenges exist, there are abundant opportunities for Metro Transit to address changing transportation conditions on and around campus. First, these strategies take advantage of multimodal trends and seek a more holistic approach to serving student transportation needs. Next, bolstering marketing and outreach efforts will help students learn to incorporate transit use into their daily lives. These strategies also call for the accelerated integration of technology so that accessing transit is a seamless process for students. Finally, addressing ridership also requires robust partnership between Metro Transit and UMN. While Metro Transit can adapt to new opportunities for ridership growth, adapting together with UMN can only further their shared goals of serving thousands of students every day now and into the future.







# Appendix A

## Stakeholders

### *Analysis*

The U-Pass question is one that primarily involves coordination and collaboration between Metro Transit and UMN. Departments at Metro Transit that would be most involved in developing and implementing solutions are Revenue Operations, Service Development, Market Development, Commuter Programs, and Strategic Initiatives. Revenue Operations and Service Development will be interested in cost-effective strategies to improve products and services to students. Market Development and Commuter Programs will be interested in methods and products to attract more students. Strategic Initiatives will be interested in how potential strategies can be validated with analytic tools and data collection.

Metro Transit has a contract with UMN to provide U-Pass on the Twin Cities campus, so the university is a significant stakeholder. UMN purchases U-Passes in bulk at a negotiated price, then sells U-Passes directly to students. At UMN, executive leadership shapes the vision for transportation on campus, and they would be interested in how transit-based

strategies fit into the University's mission and values. Parking and Transportation Services develops and implements multimodal transportation services on campus, so they would be most interested in strategies that enhance students' access to and around campus.

**Figure 16** plots stakeholders on a power-interest grid, and it shows that while the key decision-makers are at these two organizations, there are many other stakeholders that can influence the project or be highly impacted by outcomes.

UMN students comprise a large and diverse body of stakeholders, and some students will be more interested than others regarding U-Pass and transit service. Moreover, while individual students have little power over transportation policies and programs, as U-Pass customers their collective interests are inherently tied to the decision-making process. Current U-Pass holders may be the most invested student stakeholders, since changes to transit service or the U-Pass may directly impact their travel choices. Commuter students, students without cars, and students living on campus will be somewhat

interested as well, given that bus service may be a primary mode for travelling on or around campus. Students with cars, former U-Pass holders, and students who never held a U-Pass may not be very interested in the product, but attractive improvements to the product or service could encourage interest among these stakeholders.

Building and maintaining relationships with private entities (developers, TNCs, and SMDs) could augment efforts to serve student transportation needs. Through redeveloping properties around campus, developers affect the distribution of students and amenities, and may therefore impact student travel behavior. Shared mobility companies provide alternative transportation solutions for students, which may compete with or complement transit service. Opportunities to work with these stakeholders could lead to novel transportation strategies.

## ***Interviews***

We interviewed internal stakeholders who are directly affiliated with PTS and Metro Transit, as well as other people

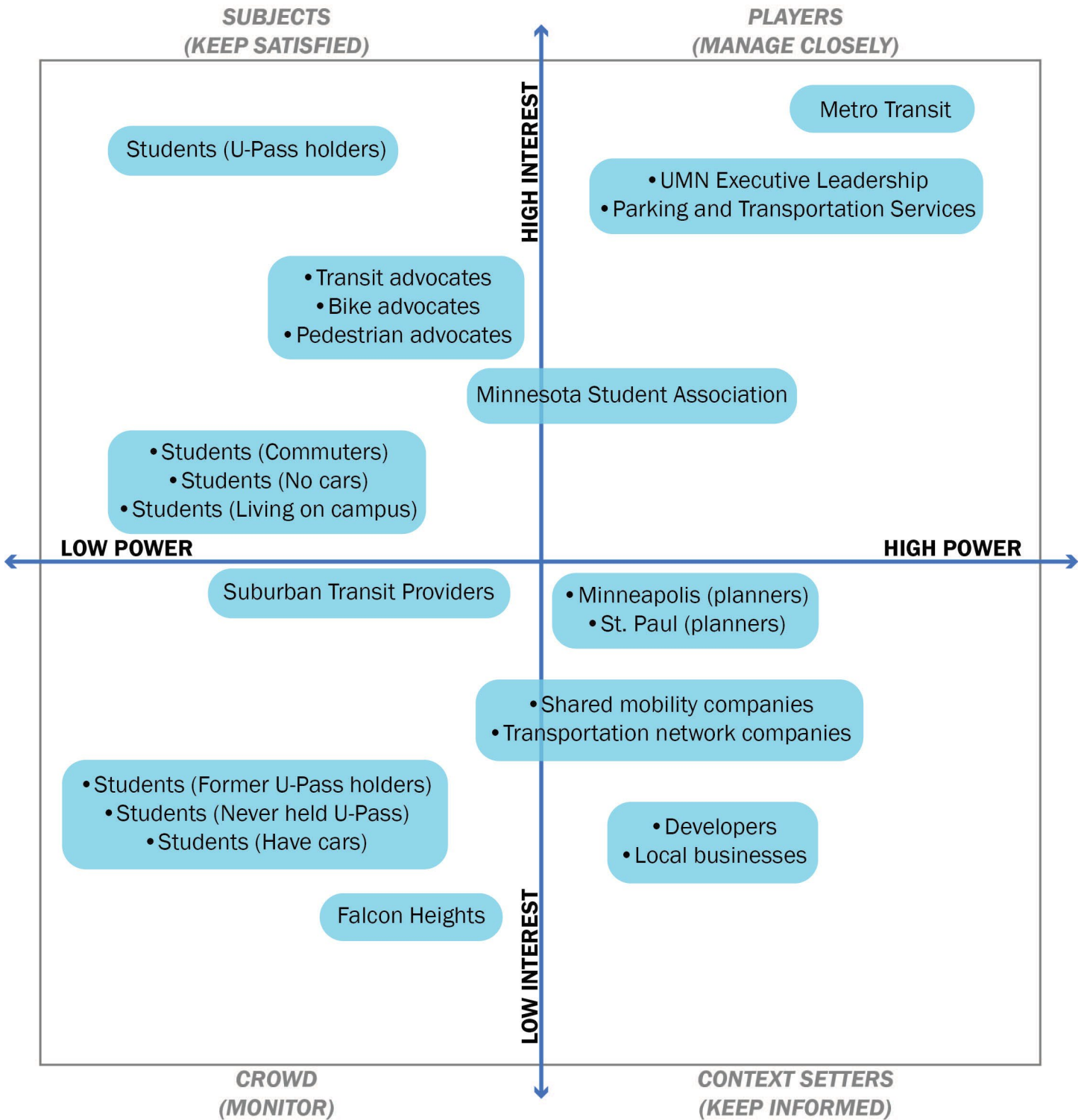


Figure 16. The power-interest grid compares each stakeholder's power over project-related outcomes and interest in the U-Pass and campus transportation.



affiliated with UMN in other capacities. We also interviewed an outside university, the University of Washington-Seattle (UW).

From Metro Transit we interviewed leaders in Marketing, Finance, Strategic Initiatives, and Service Development departments. These individuals were involved with the creation of the U-Pass, the contract between UMN and Metro Transit, marketing of the pass from Metro Transit's perspective, and the development of transit service around UMN. This interview was conducted in a group setting. All these individuals were interested in the success of the U-Pass overall and especially from their perspectives of providing transit service, marketing the product, and the overall sales and contract of the program.

Interviews with PTS were done individually or as a group of two. From an entry interview with PTS finance staff, we branched out to staff in alternative transportation, marketing and communications, fleet services, and finally the coordinator of all transit programs for UMN. These employees all had experience working with the U-Pass at some point in their career with PTS and were interested in the success of transit and the U-Pass on campus.

We also interviewed student leaders from the Minnesota Student Association (MSA) and leadership at Orientation and Transition Experiences. Students from MSA had first hand experience with using the U-Pass. They looked at the U-Pass as an important tool for students to succeed during their time at the university. Orientation

and Transition Experience incorporates education about the U-Pass as part of their educational presentations about transportation on campus.

Finally interviewing UW transportation staff was an interesting way to look at a peer institution who has a universal U-Pass for students. They were happy to share their program's history and their experience managing the program.

Each interview added new dimensions to the way we understood our project, especially in terms of defining roles and processes pertaining to U-Pass and campus transit service. A few takeaways include:

- Diffuse responsibilities managing, administering, and marketing the U-Pass
- Lack of complete data and information among both Metro Transit and UMN PTS staff
- Differing perceptions over whose role it is to study campus transportation questions
- Insufficient processes for soliciting student feedback and sustained engagement
- Various UMN offices and student groups are untapped resources for implementing new strategies
- Opportunity for comprehensive student survey to learn where students live, how they travel, and under what circumstances they would purchase and use a U-Pass

# Appendix B

## SWOT Analysis

Metro Transit can leverage its existing resources and capacities to develop solutions and reduce barriers to serving UMN students. **Table 5** uses a SWOT analysis model to list the most relevant factors that shape the scope of Metro Transit's potential strategies for serving UMN students given U-Pass sales and ridership decline. The agency's strengths derive from Metro Transit's overall robustness and the presence of a large car-less student population. Metro Transit is the primary regional transit system which car-less people depend upon to travel to destinations around the metro. Given the large and dense population of students around the Twin Cities campus, students and the campus area comprise a strong transit market. Metro Transit and UMN have worked together since the 1990s to develop, implement, and improve the U-Pass program, and continuing a close partnership will help ensure successful outcomes moving forward.

Weaknesses center on the relative attractiveness of the U-Pass and bus transit compared to other fare products and travel modes. There are several components to this: cost, convenience, awareness, and satisfaction. The perceived and real

differences between fare products and travel modes will influence how Metro Transit targets its efforts to attract student ridership.

Metro Transit may need to consider a variety of approaches to encouraging student ridership, whether it is improving the U-Pass product, increasing awareness of the product, or improving transit service. External factors that can hinder these efforts include ongoing development around campus and increasing competition and attractiveness of alternative transportation options.

**Table 5. SWOT analysis chart identifying internal and external factors affecting potential strategies for addressing declining U-Pass sales.**

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>• Metro Transit and UMN have an existing relationship that will encourage ongoing cooperation.</li> </ul>	<ul style="list-style-type: none"> <li>• Multiple entities offer competing mobility options and do not closely collaborate.</li> </ul>
<ul style="list-style-type: none"> <li>• Metro Transit service provides student access to destinations around the metro.</li> </ul>	<ul style="list-style-type: none"> <li>• Multiple fare products offered by Metro Transit compete with the U-Pass.</li> </ul>
<ul style="list-style-type: none"> <li>• Transit is a primary transportation mode for students who do not have access to a car.</li> </ul>	<ul style="list-style-type: none"> <li>• Alternative modes like biking may be more cost-effective than the U-Pass.</li> </ul>
<ul style="list-style-type: none"> <li>• Metro Transit and UMN have the capacity and resources to implement student fare programs.</li> </ul>	<ul style="list-style-type: none"> <li>• U-Pass has limited marketing material and students rely on word of mouth.</li> </ul>
<ul style="list-style-type: none"> <li>• Metro Transit and UMN both have robust data-collection practices and tools to help understand transportation trends.</li> </ul>	<ul style="list-style-type: none"> <li>• U-Pass is not integrated with student IDs, which is more for students to carry.</li> </ul>
Opportunities	Threats
<ul style="list-style-type: none"> <li>• Improved coordination of services between Metro Transit and UMN could improve customer experience.</li> </ul>	<ul style="list-style-type: none"> <li>• Fast-paced development around campus hinder Metro Transit's ability to adapt its service to changing demand.</li> </ul>
<ul style="list-style-type: none"> <li>• Developing a more cost-effective or convenient product may encourage student ridership.</li> </ul>	<ul style="list-style-type: none"> <li>• Development may generate shorter trips that are better served by shared mobility and active transportation.</li> </ul>
<ul style="list-style-type: none"> <li>• Attracting student ridership may encourage life-long transit-riding behavior.</li> </ul>	<ul style="list-style-type: none"> <li>• Potential increases to parking supply on and around campus may encourage driving and undermine transit use.</li> </ul>
<ul style="list-style-type: none"> <li>• Outreach and communication can focus on rider education for students.</li> </ul>	<ul style="list-style-type: none"> <li>• Declining gas prices may encourage driving and undermine transit use.</li> </ul>
<ul style="list-style-type: none"> <li>• Improved marketing on or around campus could boost student awareness of transit services and products.</li> </ul>	<ul style="list-style-type: none"> <li>• Failure to keep up with technological trends may discourage transit use among students.</li> </ul>



# Appendix C

## New Apartment Development

**Table 6** lists new apartment development projects completed between 2001 and 2017 in the neighborhoods surrounding UMN TC (roughly 0.5 miles from the edge of campus). Using online apartment search websites (e.g. ApartmentFinder.com, Apartments.com, and Zillow.com), we searched current listings and related properties for newly constructed apartments. To find the year of construction completion and count of units, we searched public property records. The City of Minneapolis provides unit mix information to populate bedroom counts, but we were unable to track bedroom counts for St. Paul properties.

**Table 6. Multifamily rental housing developments completed between 2001 and 2017 within approximately 0.5 miles from the UMN TC campus.**

<b>Apartment</b>	<b>Units</b>	<b>Bedrooms</b>
Hub Minneapolis Apts	407	618
The Link	336	547
The Marshall	316	881
The Quad on Delaware	277	930
FIVE15 on the Park	259	403
2700 University	246	-
7WEST Apartment Homes	218	291
The Bridges	210	360
Mill & Main	180	234
The Lyric at Carleton Place	171	-
The Venue at Dinkytown	140	246
Syndey Hall & Dinkydome	125	205
22 on the River	125	158
Stone Arch Apartments I (a)	123	190
The Encore	123	201
C&E Flats	119	-
Spectrum Apartments	118	182
C&E Lofts	104	-
412 Lofts	102	191
The Knoll	101	198
Falcon Heights Town Square	100	-
Stone Arch Apartments I (b)	98	163
1301 University	92	180
Floco Fusion	84	230
Ray	79	-
Solhaus Apartments	75	115
Fourth Street Co-op	72	-
Edge on Oak	65	85
Marcy Park	59	139
The Elysian Apartments	56	147
941 12th Ave	50	102
Coze Flats	48	49
1201 Brook	35	71
East River Apartments	33	-
The Endurance	33	40
Local 15	30	30
Northstar at Siebert Field	28	90
Apts on Essex	25	27
Farmhouse	23	-
The Cluster	12	40
Thomas Place on Campus	8	28
1716 Rollins	4	16
350 Cleveland	3	-
Archer	2	26
<b>TOTAL</b>	<b>4914</b>	<b>7413</b>

# Appendix D

## Glossary

Term	Definition
<b>31-Day Pass</b>	Regional transit riders can purchase a pass for their Go-To Card that provides unlimited rides for 31 days. Three options cover different fare and service types: \$65 (Local Off-Peak), \$120 (Express), and \$90 (Local Peak).
<b>7-Day Pass</b>	Regional transit riders can purchase a pass for their Go-To Card that provides unlimited rides for 7 days. This pass currently costs \$24.
<b>Bird</b>	A shared mobility device company that provides electric scooter service at UMN TC and in various cities in the Twin Cities region.
<b>Boarding</b>	Entering a vehicle, usually a bus or train. A count of boardings measures how many passengers enter a transit vehicle.
<b>BRT</b>	See <b>Bus Rapid Transit</b>
<b>Bus Rapid Transit</b>	Also <i>BRT</i> . An enhanced bus mode, usually implemented with larger vehicles, all-door boarding, high frequency service, and high-amenity platforms.
<b>Bus Stop</b>	Designated location for bus service. At minimum, stops have visible signage, though some stops with higher use will have bus shelters, seating, and other amenities.
<b>Campus Zone Pass</b>	UMN TC students can pick up this pass for free. It provides unlimited free rides on the METRO Green Line between stations on campus: West Bank Station, East Bank Station, and Stadium Village Station.



Term	Definition
<b>Career Services</b>	UMN TC office that provides career resources to students and provides college-specific services.
<b>CMAQ</b>	See <b>Congestion Mitigation Air Quality</b>
<b>College Pass</b>	Students at 32 participating colleges and universities in the Twin Cities are eligible to purchase this pass. Passes are valid on a semester basis and can be purchased or renewed for \$165.
<b>Congestion Mitigation and Air Quality</b>	Also <i>CMAQ</i> . Administered by the Federal Highway Administration, the Congestion Mitigation and Air Quality Improvement Program provides funding for transportation-related environmental projects.
<b>East Bank</b>	The portion of the UMN TC campus that lies within Minneapolis and is east of the Mississippi River. Most on-campus housing and academic buildings are located here.
<b>Express</b>	Bus service that provides fast service between urban core locations and suburbs. Often, trips may be limited to AM and PM peak service (6AM-9AM and 3PM-6:30PM).
<b>Fare Product</b>	A method of fare payment offered to riders as an alternative to cash payment. Examples include the U-Pass, Go-To Card stored value, and the 7-Day Pass.
<b>Go-To Card</b>	Riders can use this card to ride regional transit. On a trip, free transfers are automatically activated and valid for 2.5 hours. The Go-To Card can store value and passes. Special student and employer passes also use Go-To Card technology.
<b>Green Line</b>	Also <i>METRO Green Line</i> . Opened in Summer 2014, the Green Line is Metro Transit's second LRT line. It provides service between Minneapolis and St. Paul, including three stations at UMN TC: West Bank Station, East Bank Station, and Stadium Village.
<b>High Frequency</b>	Service that runs every 15 minutes or better on weekdays and Saturdays from morning to evening.
<b>International Student and Scholar Services</b>	This office provides support and programming to international students, staff, faculty, and researchers.

<b>Term</b>	<b>Definition</b>
<b>Light Rail</b>	Also <i>LRT</i> . An electrified rail mode that operates in a dedicated right-of-way, which may be at-grade, elevated, or in a subway. Typically, a train will consist of 1-3 vehicles. Train capacity is less than heavy rail, which is operated in cities like New York and Chicago.
<b>Lime</b>	A shared mobility device company that provides electric scooter service at UMN TC and in various cities in the Twin Cities region. Lime also provides dockless bikeshare in cities across the U.S.
<b>Limited Stop</b>	Bus service that serves fewer stops than typical local bus service.
<b>Local</b>	Bus service that serves frequent local stops. Local service may serve suburban or urban environments, or both on a single route.
<b>LRT</b>	See <b>Light Rail</b>
<b>Lyft</b>	A transportation network company that provides ride-hailing service in cities across the U.S. and Canada.
<b>Maple Grove Transit</b>	A suburban transit agency that operates service out of Maple Grove, MN, a city northwest of Minneapolis.
<b>Metropass</b>	An employer-based, discounted transit pass that provides workers with unlimited rides. The current cost to an employee is \$83/month, but employers may reduce this fee by providing a subsidy.
<b>Metro Transit</b>	A division of the Metropolitan Council that provides public transportation services to 7 counties and 90 cities in the Twin Cities region. Services include bus, BRT, LRT, commuter rail, and dial-a-ride.
<b>Metropolitan Council</b>	The metropolitan planning organization presiding over 7 counties in the Twin Cities region. It's primary role is creating and overseeing regional policy and planning guidelines.
<b>Minneapolis Campus</b>	The oldest and largest campus at UMN TC, it consists of both the East and West Banks in the city of Minneapolis
<b>Minnesota Student Association</b>	Also <i>MSA</i> . The undergraduate student government at UMN TC.

<b>Term</b>	<b>Definition</b>
<b>Mobile App</b>	Can refer to any application designed for a mobile device, such as a smartphone or tablet. Metro Transit launched a mobile app in late 2016 for riders to access transit information and purchase tickets.
<b>MSA</b>	See <b>Minnesota Student Association</b>
<b>Nice Ride</b>	A shared mobility device company that provides bikeshare service at UMN TC and in various cities in the Twin Cities region. Bikeshare includes docked and dockless bikes.
<b>Student Housing</b>	The UMN office responsible for student housing services. Divisions include On-Campus Housing and Off-Campus Housing.
<b>Orientation and Transition Experiences</b>	Also <i>O TE</i> . The UMN office responsible for providing services and programming for first-year and transfer students. Orientation in the spring and Welcome Week in the summer are both managed by OTE.
<b>Parking and Transportation Services</b>	Also <i>PTS</i> . The UMN office responsible for transportation services and facilities, including parking, campus shuttles and circulators, biking, and walking.
<b>Plymouth Metrolink</b>	A suburban transit agency that operates service out of Plymouth, MN, a city northwest of Minneapolis.
<b>PTS</b>	See <b>Parking and Transportation Services</b>
<b>Ridership</b>	A measure of how many people use a transit service.
<b>Semester</b>	A period of instruction that comprises roughly half of the academic year. At UMN, the academic calendar consists of a Fall Semester, Spring Semester, and a shorter Summer Semester.
<b>Shared Mobility Device</b>	Also <i>SMD</i> . A mobility device such as a scooter or bike that is shared among multiple users. Lime, Bird, and Nice Ride provide <i>SMD</i> programs in the Twin Cities and allow users to pay a fee to access <i>SMDs</i> .
<b>Single Occupancy Vehicle</b>	A private vehicle with only one occupant (i.e. the driver) and no passengers.
<b>SMD</b>	See <b>Shared Mobility Device</b>
<b>SouthWest Transit</b>	A suburban transit agency that operates service out of Chanhassen, Chaska, and Eden Prairie, cities southwest of Minneapolis.



<b>Term</b>	<b>Definition</b>
<b>SOV</b>	See <b>Single Occupancy Vehicle</b>
<b>St. Paul Campus</b>	The segment of the UMN TC campus located in Falcon Heights, MN, a small city adjacent to both Minneapolis and St. Paul. The campus houses several departments and only one residence hall.
<b>Stored Value</b>	Introduced in 2013, it allows users to load money onto a Go-To Card to use for future fare payment. Unlike passes, there is no discounting and the user pays the regular fare.
<b>Suburban Transit Authority</b>	In Metro Transit's 7-county service area, these agencies operate within exclusive suburban service areas as well as provide express service to Minneapolis or St. Paul core locations.
<b>TNC</b>	See <b>Transportation Network Company</b>
<b>Transit Station</b>	A designated location to access transit services. In this report, it is used specifically in reference to LRT platforms.
<b>Transportation Network Company</b>	A company that provides a shared mobility service through matching passengers with drivers. Examples are Uber and Lyft.
<b>Uber</b>	A transportation network company that provides ride-hailing service in cities across the U.S. and internationally.
<b>U-Card</b>	The UMN ID card issued to students and staff. It provides access to campus buildings and allows holders to access personal accounts.
<b>UMN-TC</b>	See <b>University of Minnesota - Twin Cities</b>
<b>Universal Pass</b>	An unlimited ride student pass provided to all enrolled students of a college or university and included as a fee in tuition.
<b>University of Minnesota - Twin Cities</b>	A campus of the University of Minnesota public university system. The Twin Cities campus is split between Minneapolis and St. Paul campuses.
<b>U-Pass</b>	The semester-based, deeply discounted fare product offered by Metro Transit to students at UMN TC. Students must opt-in and pay a \$114 fee per semester to purchase or renew a pass.
<b>West Bank</b>	The portion of the UMN TC Minneapolis campus west of the Mississippi River.
<b>Zap Program</b>	A bike commuting incentive program at UMN TC offered to students, faculty, and staff.

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