Equity in Transit: 2024

RECOVERY

LINK HOUSTON

Thank you to our Community Action Network!

LINK Houston thanks the following volunteers and members of our Community Action Network who joined our staff to help interview bus riders and assist with this report:

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Anonymous Bus Rider Quotes

The report contains many anonymous quotes to emphasize the opinions and experiences of bus riders. The personal quotes originate from survey interviews of bus riders at Kashmere Transit Center, Magnolia Transit Center, and Hiram Clarke Transit Center.

Thank you to each and every bus rider. Most of you accepted the invitation to share your experience and opinions. We hope the report spurs and supports pursuing the bus service improvements you seek.

Use of Terms

This report avoids the use of technical terminology as much as possible. Figures and tables enhance concise narrative. Direct questions to LINK Houston: linkhouston.org

Disclaimer

LINK Houston is responsible for the facts and accuracy of Equity in Transit: 2024. The contents rely on current information; sources are cited. Hyperlinks connect readers to key sources, including the Equity in Transit Reports from 2018, 2020, 2021, and 2022.

LINK HOUSTON

LINK Houston is a 501(c) (3) nonprofit organization that advocates for a robust and equitable transportation network so that all people can reach opportunity. We envision a world in which everyone in Houston can easily access not only jobs but also educational experiences, medical appointments, grocery stores, greenspace, and other important destinations, regardless of their income or mode of transportation. To make that vision a reality, we support transformative and inclusive policies, systems, initiatives, and infrastructure development that connect people to opportunity by transit, walking, rolling (i.e., for people with disabilities affecting mobility), and biking. We move ideas into action through community engagement, research, and shaping public policy.

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Executive Summary

Public transit plays an essential role in connecting thousands of Houstonians to work, school, healthcare, and many other opportunities. Equity in Transit: 2024 combines data analysis and riders' experiences collected through the 2024 Houston Bus Riders Survey. The report explores how transit has, and should connect people to opportunity in Houston, with a particular focus on service recovery of the Metropolitan Transit Authority of Harris County (METRO) following the onset of the COVID-19 pandemic in 2020. The study also updates the Transportation Equity Demand Index (TEDI), which demonstrates continued need for equitable improvements and investments in public transit in the Houston region. Based on the data analysis and riders' feedback, LINK Houston provides recommendations to METRO to improve its services and better serve the riding public.

While METRO ridership fell 61% between February and April 2020, it has since increased steadily at an average of 24% per year. Weekly ridership in February 2024 is 86% of weekly ridership in February 2020 - the second highest recovery among the top 20 metro areas - with local bus ridership at 95% of that pre-COVID level. Yet, many riders continue waiting longer for the bus than in 2019. We compared service levels for all METRO routes between October 2019 and October 2023 and found that many routes are running less frequently at key times of day - making wait times longer and trips harder to plan. Maximum wait times have increased the most on many Green routes (METRO's least frequent services) at rush hour, and on many formerly Red routes (METRO's most frequent services) on weekends. Most routes with reduced service are within high demand areas for affordable transportation as demonstrated by the TEDI.

LINK Houston and volunteers surveyed 299 people about their experience using METRO, 90% of whom were current riders. The most common concern was frequency – **38% of those surveyed want shorter wait times for the bus.** Many riders specifically mentioned wait times at weekday rush hour and on weekends are longer than before the pandemic. Many riders also mentioned the need for shorter wait times when making connections between multiple routes. Of those surveyed who reported riding less often, 52% cited frequency as a factor. Other common concerns include reliability (22% of responses), safety (16%), and issues with stops and sidewalks (15%).



Recommendations

Based on rider feedback and analysis of current service levels, running more frequent service is METRO's best opportunity to increase ridership and better serve populations in TEDI high demand areas. The top priority recommendation is for METRO to reaffirm their commitment to increase service by 25% above pre-pandemic levels, as outlined in the METRONext Moving Forward Plan. METRO should develop a plan on how that service will be allocated, focusing first on frequency at peak hours and on weekends in TEDI high demand areas, and engage riders and the broader public beyond the required public hearings. Other notice materials for recommendations include:

- Ensure all on-time performance data is publicly available.
- Take a comprehensive approach towards rider safety.
- Work with partners to improve stops, sidewalks, and crosswalks.
- Accelerate the voter-approved METRONext Moving Forward Plan, focusing first on TEDI high-demand areas.

TABLE OF CONTENTS

- 1 Introduction
- 3 Four Years Later: METRO in 2024
- 14 What are Riders Saying?
- **20** Recommendations
- 24 Conclusion
- 25 Appendix

LIST OF FIGURES

- 2 Figure 1, 2024 TEDI Relative Demand and High Demand Areas
- 3 Figure 2, METRO ridership June 2019 to Present
- 5 Figure 3, Change in Maximum Wait Times for select routes on Weekdays at 7 a.m.
- 6 Figure 4, Change in Maximum Wait Times between October 2019 and October 2023 for Weekdays at 7 a.m.
- 7 Figure 5, Change in Maximum Wait Times for select routes on Saturdays at 12 p.m.
- 8 Figure 6, Change in Maximum Wait Times between October 2019 and October 2023 for Saturdays at 12 p.m.
- 10 Figure 7, Map of Frequent Network in February 2020
- 10 Figure 8, Map of Frequent Network in February 2024
- 12 Figure 9, Change in weekday ridership by Super Neighborhood, October 2019 vs. October 2023
- 13 Figure 10, Change in weekend ridership by Super Neighborhood, October 2019 vs. October 2023
- 15 Figure 11, Survey Canvassing Locations and Bus Routes Selected for Research Focus
- 25 Figure 12, TEDI Indicator Details
- 25 Figure 13, Illustration of Methodology
- 26 Figure 14, TEDI Individual Indicators
- 27 Figure 15, TEDI 2024, Houston METRO Service Area
- 28 Figure 16, TEDI 2024, Statistically Concentrated "High TEDI Demand 99% Confidence Areas"
- 29 Figure 17, TEDI 2024, Summary of Indicators by High Demand Area
- 30 Figure 18, Comparison of Headways for Routes 3-30
- 30 Figure 19, Comparison of Headways for Routes 32-59
- 31 Figure 20, Comparison of Headways for Routes 60-85
- 31 Figure 21, Comparison of Headways for Routes 86-402
- 32 Figure 22, Survey Training Reference
- 33 Figure 23, Survey Form English
- 34 Figure 24, Survey Form Spanish

Introduction

Houstonians of all walks of life ride transit, but several populations ride transit in greater numbers, including people of color, low-income people, people with disabilities, and people without access to a personal vehicle. These communities face unique challenges and depend on public transportation as a lifeline for their daily commute and essential needs.

Why is Transit Important?

Robust transit service is critical for Houston's communities, economy, and environment.

1. **Accessibility**: Public transportation provides access employment, education, healthcare, and grocery stores for individuals who may not own a personal vehicle. It ensures that people can reach their destinations reliably and affordably.

"METRO takes me to the doctor, pharmacy, and store."

2. **Affordability**: Owning and maintaining a personal vehicle can be expensive, especially for low-income individuals. According to a <u>New York Times' AAA analysis</u>, people in the U.S. spent over \$12,000 on car ownership last year. Public transportation offers a more affordable alternative, allowing individuals and families to save on transportation costs and allocate their resources to other needs.

"Just \$1.25, and I can move!"





3. **Mobility**: Public transportation improves mobility for individuals who may not be able to drive due to age, disability, or other reasons. It ensures that everyone, regardless of their physical abilities, can travel independently and participate in daily activities.

"I don't have to wait on anybody to get anywhere."

4. **Environmental Benefits**: Public transportation plays a crucial role in reducing emissions and promoting sustainability. By encouraging people to use public transit instead of personal vehicles, it helps decrease traffic congestion and carbon footprint, leading to improved air quality and a healthier environment for everyone.

"Gets me out of my car - less pollution."

5. **Social Equity**: Public transportation provides affordable and economical travel options to everyone, helping to reduce disparities in access to opportunities.

"We can all ride together."

What is Equity in Transit?

Equity in transit is fair and just distribution of benefits and burdens of transit services and infrastructure across communities. Some level of demand for equitable mobility exists everywhere. Transit advances equity and climate justice when it exists in high demand for equity locations and provides a quality travel option.

Transportation Equity Demand Index 2024

LINK Houston measures demand for equitable mobility with the Transportation Equity Demand Index (TEDI). Composed of 15 indicators, covers aspects of both personal and community equity. LINK Houston created the index in 2018 to identify locations for more equitable transit investments by measuring fundamental demographic demand, likely higher-transit use, and human- and built-environment feasibility (i.e., people density, jobs density, and walkable street network).

LINK Houston updates the TEDI each year using the same methodology as before but utilizing the most current data sources. The TEDI shows where people most seek affordable transportation options offering safe, efficient, and dignified access to and from Houston's opportunities. This year, five high demand areas were identified.

The high demand areas include inordinately higher local rates of:

- Poverty (23% of households versus 11% in all other areas)
- Households with no vehicle (12% of households versus 4% in all other areas)
- People using primarily transit to access work (5% of employed people versus 1% in all other areas)

In 2024, 82% of residents inside high demand areas were people of color (Central East: 87%; Far East: 93%; Greenspoint: 96%; Northwest: 82%; Southwest: 84%) whereas 67% of all other parts of METRO's service are people of color.

The appendix contains more information about TEDI methodology.

The 2024 high demand areas cover 222 square miles and are home to 1.2 million people.

The areas are:

- Central East (East Inner Loop, North, Northeast, and Southeast Houston)
- Far East (Northshore, East Harris County)
- Greenspoint
- Northwest (Fairbanks, Inwood, Langwood)
- Southwest (Gulfton, Sharpstown, Alief, and surrounding neighborhoods)

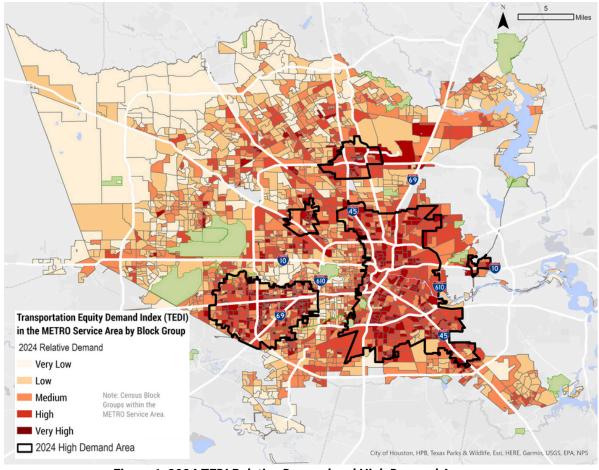


Figure 1, 2024 TEDI Relative Demand and High Demand Areas

Four years later: METRO in 2024

Like all major transit systems, METRO service and ridership was significantly disrupted at the onset of the COVID-19 pandemic. In April 2020, the first month after Harris County issued a "Stay Home, Work Safe" order, ridership fell 61% from February 2020 levels. Service levels – the number of trips and frequency of routes – were also reduced as the METRO workforce was disrupted.

Since then, ridership has increased steadily across all METRO services. Frequency and service levels, however, remain below pre-COVID levels on many routes. LINK Houston took a deeper dive on both ridership and service to understand the current state of public transit in Houston.



Ridership Recovery: Overall

Over the past four years, METRO ridership has been increasing steadily at an average of 24% per year. Compared to average weekly ridership in February 2020, ridership in February 2021 was 46%, ridership in February 2022 was 59%, ridership in February 2023 was 73%, and ridership in February 2024 was 86% (as shown in Figure 2). Among the country's 20 most populous metropolitan statistical areas, <u>transit ridership in</u> Houston is the second most recovered compared to pre-pandemic levels.

METRO Ridership: An Average Week

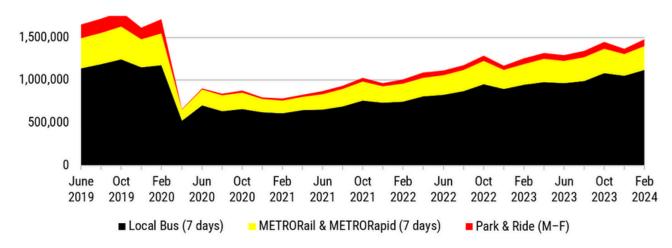


Figure 2, METRO ridership June 2019 to Present

Local bus ridership recovery is especially strong – **weekly ridership in February 2024 is 95% of February 2020 levels.** For the same period of comparison, METRORail and METRORapid ridership is 75% recovered, while Park & Ride service is 50% recovered.

Service Recovery: Change in Maximum Wait Times

While ridership is trending upwards, service levels have not fully recovered. LINK Houston compared headways (the time between buses) on all METRO routes between October 2019 and October 2023 and found that many routes are running less frequently at key times.

We quantified the difference in frequency levels as "Change in Maximum Wait Times." Equivalent to the headway, maximum wait time is the length of time a rider would have to wait, based on the schedule, if they just missed a bus. We have chosen the "maximum wait time" framing to emphasize something every rider knows and feels: no matter how well you know the schedule or plan your trip, there is always a chance your day will be impacted by an unplanned wait. How short or long that wait might be depends primarily on the scheduled frequency and represents the convenience – or penalty – one experiences by choosing to ride transit.

What services does METRO run?

METRO operates multiple types of transit services:

- METRORail and METRORapid, including:
 - Red Line
 - Green Line
 - Purple Line
 - Silver Line
- · Local Bus, including:
 - Red (most frequent) every 15 minutes or less, at least 15 hours per day
 - Blue (medium frequent) every 30 minutes or less
 - Green (least frequent) every 60 minutes or less
- METROLift
- Curb2Curb
- Park & Ride

Equity in Transit: 2024 focuses primarily on the local bus network.







Weekday Rush Hour

The time of day with the most routes running less frequently is on weekdays during rush hour (see figures 3 and 4). We found that on weekdays at 7 a.m., maximum wait times on 31 route segments have increased by five minutes or more. Of those 31 routes, 23 run within one or more of three TEDI high demand areas: Central East, Southwest, and Northwest.

These morning service levels largely mirror those in the evening.

Riders of 11 routes are experiencing maximum wait times 30 minutes longer, including eight within TEDI high demand areas. These are all Green routes. METRO's frequent routes, that previously benefitted from service every 30 minutes at peak hours. Now, riders who previously had half-hourly departures to choose from during busy times must time their lives around a bus that comes once an hour. This can mean having to arrive at work or an appointment 70 minutes early to avoid the chance of being late.

Eight route segments have shorter maximum wait times at weekday rush hour, including the 6 Jensen/Greens, which serves the Greenspoint TEDI high demand area, and the 47 Hillcroft, which was recommended for improvement by the Equity in Transit: 2022 report. Maximum wait times in the Far East TEDI high demand area have not increased. The appendix contains information on wait time changes for all METRO routes.

"The 98 needs more than one bus. I missed the first one, now I need to wait an hour."

	Oat 2010	Ont 0000	Charre
Bt-	Oct 2019	Oct 2023	Change
Route	Weekday 7am	Weekday 7am	Weekday 7am
3 Langley / Little York*	30	45	15
7 West Airport	20	30	10
11 Almeda / Lyons			
(Gellhorn & 610 to Fannin South TC)	15	30	15
23 Clay / West 43rd	30	60	30
30 Clinton / Ella	30	50	20
36 Kempwood	15	20	5
39 Katy Freeway	30	40	10
41 Kirby / Polk	20	30	10
48 Market	30	60	30
52 Hardy - Ley	22	30	8
58 Hammerly	30	60	30
56 Airline / Montrose			
(Greenspoint TC to TMC TC)	12	20	8
60 Cambridge			
(TMC TC to El Camino)	10	15	5
60 Cambridge			
(TMC TC to Southeast TC)	30	40	10
66 Quitman	30	60	30
67 Dairy Ashford	30	60	30
68 Braeswood	15	30	15
70 Memorial	30	60	30
72 Westview	30	60	30
75 Eldridge	30	60	30
79 Irvington*	30	60	30
80 MLK / Lockwood			
(MLK & Park Village to Kashmere TC)	15	20	5
80 MLK / Lockwood			
(MLK & Park Village to Tidwell TC)	30	40	10
89 Dacoma	30	45	15
98 Briargate	30	60	30
108 Veterans Memorial Express			Service
(Downtown to FM 1960)	15	No Service	Discontinued
152 Harwin Express	20	30	10
153 Harwin Express	20	30	10
162 Memorial Express	30	60	30
402 Bellaire Quickline	15	30	15

Figure 3, Change in Maximum Wait Times for select routes on Weekdays at 7 a.m.

^{*}During the comparison period, route 3 Langley/Little York was extended to replace portions of route 79 Irvington, which was shortened.

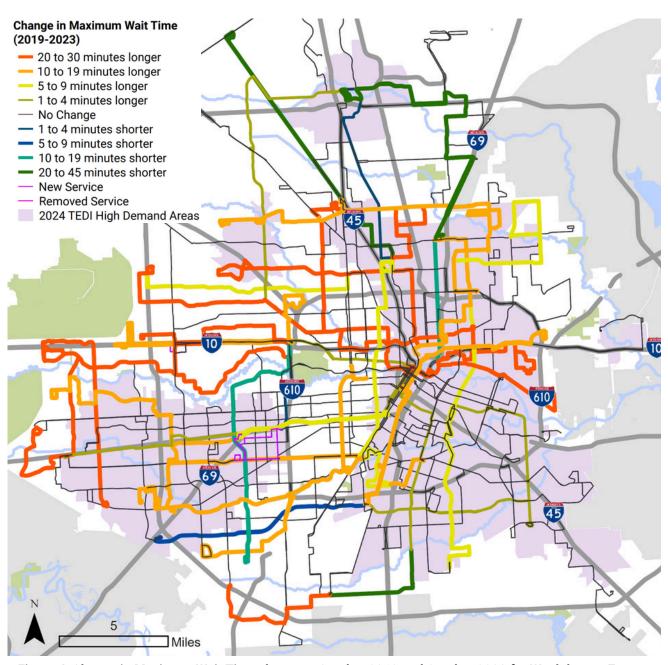


Figure 4, Change in Maximum Wait Times between October 2019 and October 2023 for Weekdays at 7 a.m

Weekends

Wait times have also increased throughout the day on weekends (see figures 5 and 6). We found that on Saturdays at 12 p.m., maximum wait times on 10 route segments have increased by five minutes or more, of which nine routes are located in TEDI high demand areas. Seven of these were previously Red routes, on which riders enjoyed service every 15 minutes or less.

Eight route segments have shorter maximum wait times on weekends, including the 88 Sagemont, which has been upgraded from Green to Blue and serves a far corner of the Central East TEDI high demand area. Weekend service is largely consistent for both Saturday and Sunday, with few peak hour increases.

	Oct 2019	Oct 2023	Change
Route	Saturday 12pm	Saturday 12pm	Saturday 12pm
26 Long Point / Cavalcade	15	30	15
27 Shepherd	15	30	15
33 vs. 20*			
(Westpark/Lower Uptown TC to Bellaire TC)	15	30	15
50 Broadway	15	30	15
56 Airline / Montrose*		15 (SB)	0 (SB)
(Greenspoint TC to Northline TC)	15	21 (NB)	7 (NB)
56 Airline / Montrose			
(Greenspoint TC to TMC TC)	15	30	15
65 Bissonnet	15	20	5
80 MLK / Lockwood			
(MLK & Park Village to Kashmere TC)	15	20	5
80 MLK / Lockwood			
(MLK & Park Village to Tidwell TC)	30	40	10
89 Dacoma	30	45	15

*Half of trips on route 56
Airline/Montrose now run only
between Greenspoint Transit
Center (TC) and Northline TC.
This shorter version of the
route only meets the standard
for Red routes in the
southbound (SB) direction;
going northbound from
Northline TC, riders have to
wait up to 21 minutes, an
increase of 7 minutes from
2019.

Figure 5, Change in Maximum Wait Times for select routes on Saturdays at 12 p.m.



"Some routes don't come as often, especially on weekends, making it harder to plan trips with connections."

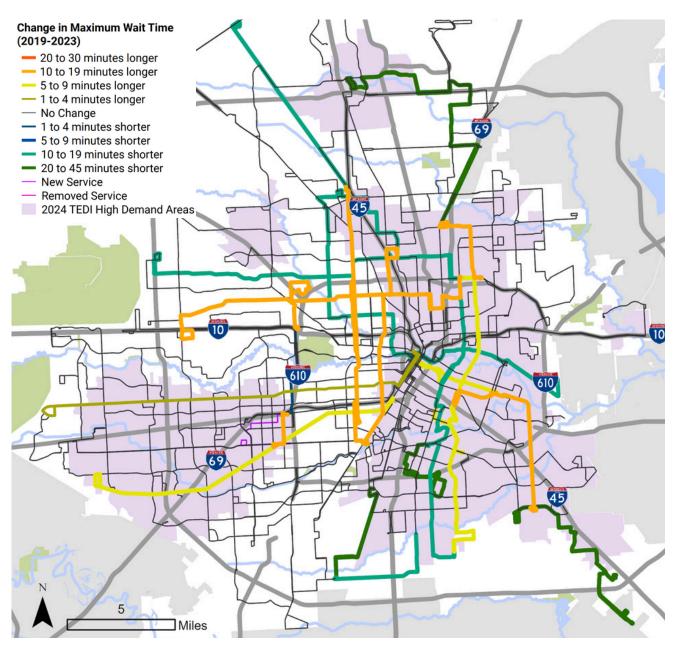


Figure 6, Change in Maximum Wait Times between October 2019 and October 2023 for Saturdays at 12 p.m.

Frequent Network

The Frequent Network is also less robust than before the onset of the pandemic. From its creation through March 2020, the Frequent Network included 20 bus routes (including combined segments, such as the 51/52 between Downtown and Kashmere Transit Center) plus the three light rail lines (see figure 7). Today, only 14 bus routes and the Red line run frequently enough to meet the standards (see figure 8). Of the 6 bus routes and 2 light rail lines no longer part of the Frequent Network, all run through TEDI high demand areas.

The shrinking of the Frequent Network dramatically diminishes the utility of the bus network in large swaths of the service area. Where a cook who lives in Near Northside and works at a restaurant along Shepherd Drive used to have a frequent network trip with one quick connection from the 26 Point/Cavalcade to the 27 Shepherd, they now contend with two 30-minute routes on weekends, meaning up to an hour of wait time on a bad day. Instead of the everywhere-toeverywhere freedom of mobility offered by a frequent grid, riders now experience the downsides of both the new and old systems: a network that relies on connections but lacks the frequency to make them convenient.

"Multiple errands is very hard with a bus system that requires lots of waiting."

What is the Frequent Network?

In 2015, METRO overhauled its local bus network, shifting away from direct trips to Downtown to focus on a grid that would cover a broader share of the region. The crux of this new system is the Frequent Network, containing METRO's Red local bus routes. Red routes run often enough that riders aren't tethered to a schedule: every 15 minutes for most of the day, seven days a week. The Frequent Network is intended to serve as the backbone of the METRO system, enabling riders to access key destinations with quick transfers. METRO's New Bus Network has been a model for other agencies wanting to expand the reach of transit in their cities.



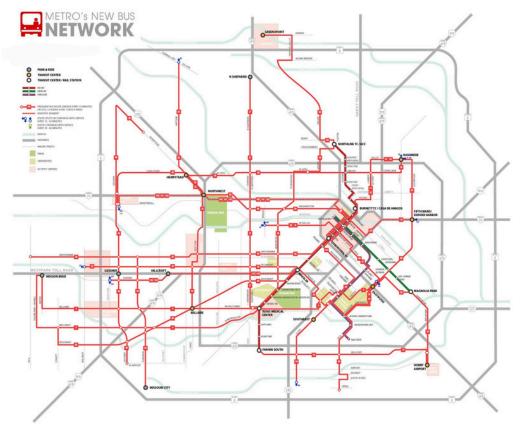


Figure 7, Map of Frequent Network in February 2020

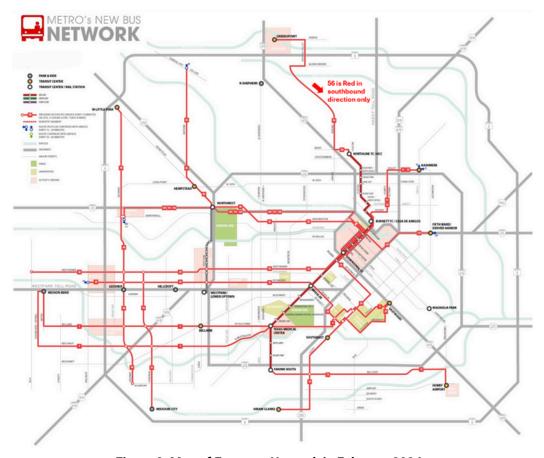


Figure 8, Map of Frequent Network in February 2024

Other Times: Weekday Midday and Weekday Late Evening

LINK Houston also compared service levels between 2019 and 2023 for weekday midday and weekday late evening periods. On weekdays at 12 p.m., 12 routes segments are running more frequently, while 8 are running less frequently. On weekdays at 9 p.m., 26 route segments are running more frequently, including 10 routes that did not have late evening service in 2019; 4 routes or portions of routes are running less frequently. Expanded service during non-traditional work hours was another recommendation of Equity in Transit: 2022.



Ridership Recovery: High Demand Areas

LINK Houston compared ridership at the Super Neighborhood level between October 2019 and October 2023. We found that ridership is recovering unevenly across the METRO service area.

On weekdays, ridership recovery is strongest in Houston neighborhoods to the Northwest, West and Southwest, and certain Southeast neighborhoods like Sunnyside and Southpark. Ridership recovery is weakest in Downtown and in neighborhoods containing a Park & Ride lot like Addicks or Kingwood – likely due to relatively low ridership on those commuter routes. Weekend ridership recovery is more robust, with a majority of neighborhoods at or above 80% of their pre-COVID ridership and many neighborhoods above 100%.

However, many neighborhoods where ridership recovery has lagged are within TEDI high demand areas, specifically to the Northeast and Southeast. Many of these neighborhoods have also seen reductions in overall service, as described in the previous section. The high TEDI score of these neighborhoods suggests latent demand that could be unlocked by increased service.

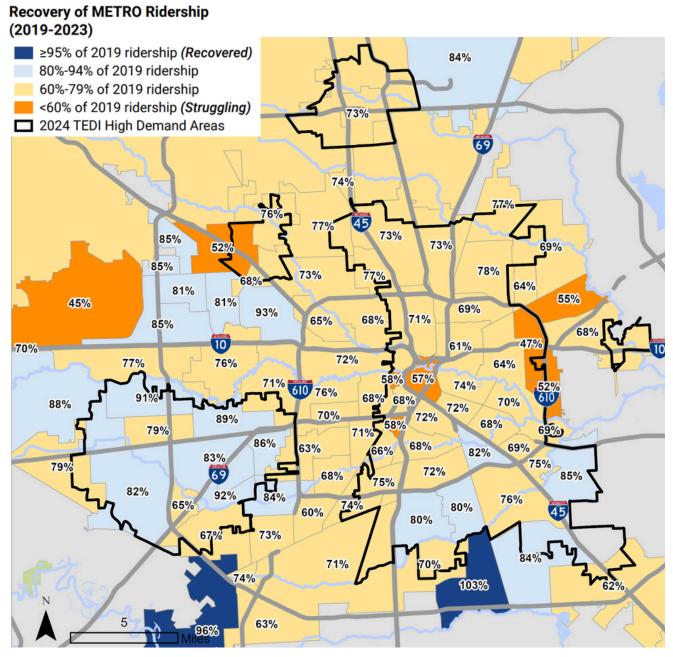


Figure 9, Change in weekday ridership by Super Neighborhood, October 2019 vs. October 2023

Recovery of METRO Ridership (2019-2023) 80%-94% of 2019 ridership

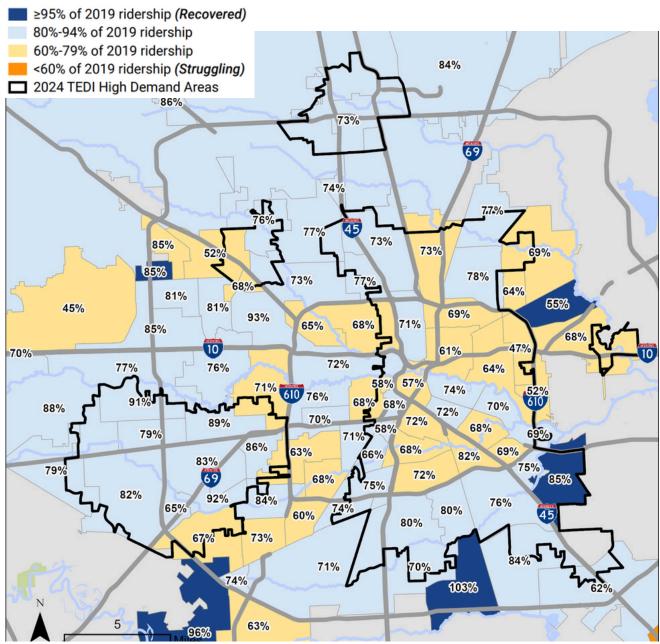


Figure 10, Change in weekend ridership by Super Neighborhood, October 2019 vs. October 2023

What are Riders Saying?

To understand Houstonians' perspective on METRO's current service, LINK Houston conducted the 2024 Houston Bus Rider Survey. The 2024 Houston Bus Rider Survey is adapted from previous editions to learn more about changing rider habits since the onset of the pandemic.

We added two new questions:

- Compared to before the pandemic (2019), are you using METRO more often, about the same, or less often?
- Do you work from home?



Houston Bus Rider Survey

Since 2021, Equity in Transit has included a survey component developed and refined with help from a community research team of transit riders, neighborhood leaders, and other volunteers. Feedback from previous community research teams has taught us to ask open-ended questions about riders' experiences: current riders were asked what they like about METRO and what they would like to be better, and former riders were asked why they stopped riding, and both former and non-riders were asked what would help them choose METRO in the future. We also collected basic information about how often they ride, along with optional demographic questions.



Who We Surveyed

LINK Houston's analysis shows that compared to 2019, wait times have increased the most on Green routes during rush hour and on Blue routes on weekends that previously ran frequently enough to meet the service standard for Red routes. We chose to target the survey towards riders from a sample of these routes, three of which run within TEDI high demand areas.

- 26 Long Point / Cavalcade (+15 minutes on weekends)
- 50 Broadway (+3 minutes on weekdays, +15 minutes on weekends)
- 80 MLK / Lockwood (+5-10 minutes on weekdays and weekends)
- 98 Briargate (+30 at weekday rush hour)

These are intended to serve as a representative sample of the many routes with reduced service at key times.

To find riders of these routes, we interviewed people at three transit centers (TC) served by these routes: Kashmere TC (served by routes 26 and 80), the Magnolia TC (served by route 50), and the Hiram Clarke TC (served by route 98). We also sent an online survey to civic clubs and neighborhoods served by those routes.

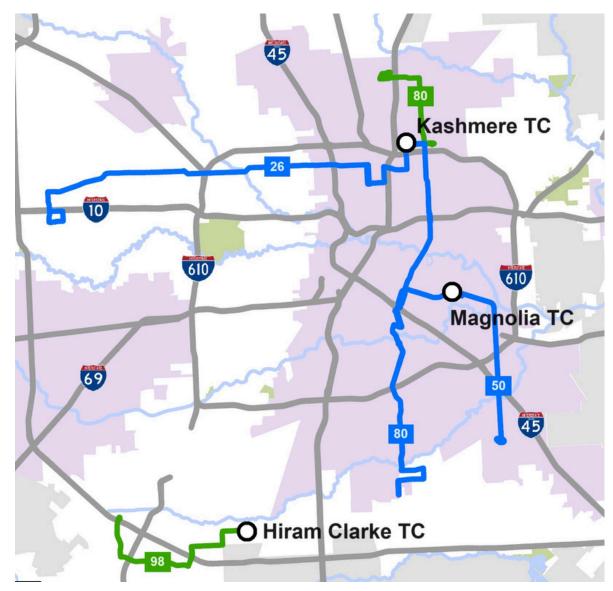
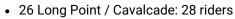


Figure 11, Survey Canvassing Locations and Bus Routes Selected for Research Focus

Who took the survey?

209 people were interviewed in person, 90 people took the survey online.

Of current riders, people reported riding the following routes:



• 50 Broadway: 50 riders

• 80 MLK / Lockwood: 35 riders

• 98 Briargate: 15 riders

• Other routes: 173 riders

METROLift: 11 riders

• METRORail or METRORapid: 120 riders

Of current riders:

49% ride METRO 6-7 times per week

• 37% ride 2-5 times per week

• 14% ride 1 day per week or less

Of current riders:

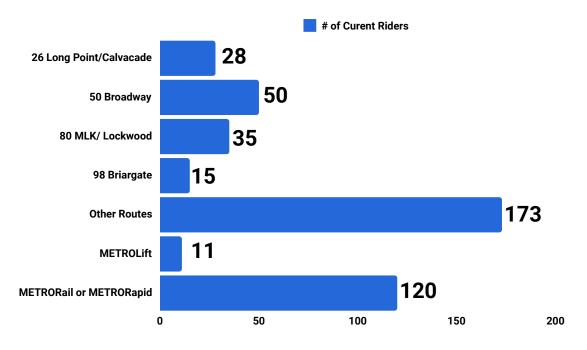
- 41% are riding more often than before the pandemic
- 49% are riding about the same as before the pandemic
- 10% are riding less often than before the pandemic

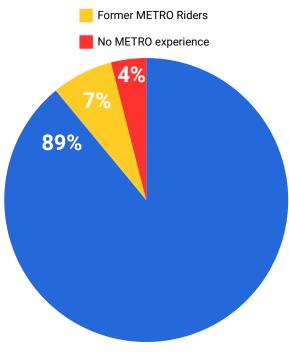
Of all people surveyed:

- 58% never work from home, always travel to work
- 16% work from home a few days a week
- 6% work from home almost every day
- 20% were retired or not currently working

Of riders who provided demographic information:

- 5% of people were under 18; 33% were age 18 to 34; 52% were 35 to 64, and 10% were 65+
- 83% took the survey in English, 17% took the survey in Spanish
- 11% of those surveyed reported having a disability
- 81% were people of color: 39% Black, 39% Latino/a, 2% Asian, 1% two or more race/ethnicities, <1%
 American Indian or Alaska Native, and <1% Native Hawaiian or Other Pacific Islander.
- 57% of people were male, 42% were female, and <1% were nonbinary or another gender.





Current METRO Riders

How can METRO improve? Riders share their thoughts.

Participants shared a broad range of thoughts, desires, and concerns regarding their personal experiences with METRO.

Make wait times shorter (38% of responses)

The most common request from survey participants was to increase frequency on bus routes. Of 299 people surveyed, (38%)115 mentioned increased frequency or shorter wait times as an improvement METRO should make. Current riders explained that shorter wait times speed up the overall trip and allow greater flexibility in trip planning. Many riders also pointed out how their routes are running less frequently today than before the pandemic, often specifically mentioning wait times at weekday rush hour and on weekends. Of those surveyed who reported riding less often, 52% cited frequency as a factor.



"The 98 runs every hour or longer. It would be better if it was more frequent."

"The 26 is supposed to run every 15 but doesn't come that often."

"The 50 was more frequent before [COVID-19 Pandemic]."

"METRO's frequent routes are super useful. Routes running under 15 minutes allow me to get where I need to go easily, even with a transfer."

Make transfers between routes shorter and easier (5%)

Many riders use two or more routes to make a trip, and riders making connections were well represented in our survey. Many riders noted how transfers could make or break their day – recounting experiences of being late for work, for school, for doctor's appointments, or for picking up their kids after missing connections. Some riders we canvassed in person were waiting to be picked up by a friend or family member after missing a connection to an hourly route. Many riders recognized the importance of frequency in making connections – shorter wait times mean shorter transfers. Riders who transferred from Red routes to Green routes noted their trip hinged on the less frequent service.



"Missing a connection by one minute costs me 37 dollars."

"The 98 comes every hour, should be every 30 minutes, it makes life difficult. I have to time my trip on the 54 perfectly."

How can METRO improve? Riders share their thoughts.

Make wait times more consistent and accurate (22%)

Survey results also show that riders seek more reliable service. Many people noted that buses simply do not show up, while others pointed out that real-time information is inaccurate.

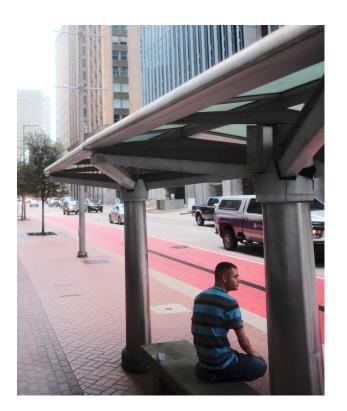
"It's frustrating when the 50 doesn't come."

"The routes generally make sense, but it's hard to count on regularly spaced arrivals."

"I use the "Transit" app, which helps ensure I get to my bus on time. But it doesn't work when the bus's GPS is off."

"[the sign says] 47 minutes, but that's not always accurate"

"I am lucky enough to be able to splurge for ride share when my bus is 15+ minutes late, but I shouldn't have to do that to get to work!"



Make transit safer and more comfortable (17%)

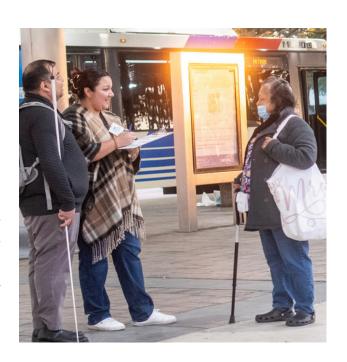
Many riders reported feeling unsafe waiting for the bus or on buses themselves. Riders appreciated existing safety measures but want METRO to do more.

"[The service] works well, but sometimes there are people behaving badly."

"I have walked 20 minutes to not have to wait for the bus alone for a long time in the transit center."

"I like the cameras and added safety measures."

"More lighting, safety for women."



How can METRO improve? Riders share their thoughts.

Make it easier to access transit (15%)

Many riders shared concerns about lack of safe and accessible sidewalks to reach bus stops, as well as a lack of shade while waiting on the bus.

"A lot of streets in the city and outskirts don't have sidewalks."

"Better shelters and sidewalks for rainy days."
"More bike lanes and pedestrian friendly infrastructure to address first/last mile problem. Increased tree canopy cover for shade."





Bring high-quality service to more communities (16%)

Riders recognize the value of METRO's high-quality services – many specifically mentioned the light rail, the METRORapid Silver Line, and frequent Red routes as the kinds of service they'd like to see in their communities.

"I want my route to run later like the 2 or 82"

"My route needs more frequency like the 54"

"More trains, more bus lanes so they don't get stuck in traffic."

"Expanding the light rail or adding more lines like the silver one would cut the travel time. Currently it takes me over an hour to travel the distance in car would take 20 mins."

"Light rail to hobby will be good for the new generation."

Keep transit affordable (7%)

Some riders noted that METRO's \$1.25 fare for local bus is very affordable, and one of the things they like about current service. Only four riders (1.3% of responses) suggested eliminating fares.

"\$1.25 there and back, can't beat that!"

Recommendations

Since 2018, each edition of Equity in Transit has provided consistent recommendations of how METRO and partner agencies can make transit in Houston more equitable and higher quality: to improve frequency, reliability, span of service, accessibility, stops & stations, network coverage, customer service & safety. These remain the fundamentals of good transit and continue to be areas where METRO and partner agencies should focus.

To make progress towards these improvements, LINK Houston recommends the following specific actions.

Re-affirm METRO's commitment to increase service by 25% above pre-pandemic levels.

√ Frequency (#1 Priority) ✓ Span of Service ✓ Network Coverage

Based on rider feedback and analysis of current service levels, running more frequent service is METRO's best opportunity to increase ridership and better serve populations in TEDI high demand areas. METRO has been intermittently increasing service on a route-by-route basis through its three annual service changes as more bus operators and fleet vehicles become available. LINK Houston calls on METRO to go beyond this process by re-affirming its existing commitment to increase local bus service by 25%.

The METRONext Moving Forward plan, approved by voters in 2019 with 68% of the vote, includes a 25% increase in local bus service. METRO should re-affirm that target, develop a public-facing plan for where that service will be allocated, and take steps to ensure the necessary buses, operators, and other resources are available. METRO should focus first on frequency at peak hours and on weekends – while METRO should not necessarily restore its services exactly as they were four years ago, wait times during these periods have increased the most, and they represent the best opportunities for increased ridership. Beyond a route-by-route analysis, METRO should ensure a robust network of Red routes is available in TEDI high demand areas.

METRO should also engage riders and the broader public beyond the notice materials currently required for service changes. Developing a plan to increase service by 25% will require a longer lead time than the typical 30 day process for proposing and adopting service changes. METRO should propose various scenarios for expanding service and solicit public feedback on them. When service changes are proposed, METRO should describe them in plain language, such as reduced or increased wait times, and the rationale for proposing them, through a wider range of communication methods.

METRONEXT MOVING FORWARD PLAN INVESTMENTS



Prioritizing frequency is a proven strategy to increase ridership in Houston. After METRO switched to the New Bus Network in 2015 – which created a network of 22 routes running every 15 minutes, along with an overall increase in service – ridership increased: 6.5% in 2016, another 1.9% in 2017, and on average 2.1% per year through 2019. This defied national trends – during the same period, transit ridership fell nationally by 8%.

Ensure all on-time performance data is publicly available.

✓ Reliability

To rely on transit, riders must be able to trust that the bus will come on schedule. On time performance is the cornerstone of that trust. However, delays happen, and most riders rely not only on the posted schedule but on real-time arrival information – across a range of different mobile applications, and increasingly on digital signage at stops and transit centers. Despite progress to improve the interface of METRO's own applications, real-time information is still not consistently accurate. Bus trips do not always show up in mobile apps, leading to the frustrating "ghost bus" phenomenon. Digital signs sometimes count down to zero, and then briefly to negative numbers, with no bus arriving.

METRO should redouble its efforts to ensure consistent, accurate real-time arrival information. Just as METRO has an on-time performance goal (75% for bus service) that is regularly evaluated and reported to the board, METRO should also establish a performance goal for buses being accurately tracked – and take regular steps to improve it. METRO should publish aggregate on-time performance metrics in each monthly ridership report.

Take a comprehensive approach towards rider safety.

✓ Customer Service & Safety

Riders want to feel safe during all phases of their trips: while walking or rolling to transit, while waiting at stops and transit centers, and while on buses and trains. This will require a broad range of solutions. Riders requested many different improvements: additional patrols, better lighting, and more cameras. Riders also recognized heightened risk in areas with low foot traffic, such as transit centers at night, speaking to the benefit of increasing ridership to facilitate safer environments.

METRO should take a comprehensive approach – across all internal departments and with partner agencies – to improve rider safety. Other agencies have adopted safety programs that METRO should consider: "transit ambassadors" who provide both customer service and a visible safety presence; "Crime Prevention Through Environmental Design" which incorporates natural surveillance mechanisms into stops and transit centers; and "Request-a-Stop" which allows riders to get dropped off anywhere along the route during late night hours. These ideas, along with the testimonials in this report, are a good starting point – but engaging directly with riders and the broader public is essential to ensuring these programs are implemented equitably.



What are other agencies doing?

In 2020, the board of directors for the Los Angeles County Metropolitan Transportation Authority asked the agency to re-invision transit safety in partnership with community leaders. With their input, LA Metro created the Metro Ambassador Pilot program, deploying an added workforce that collaborates with other departments to maintain public safety and help make the system feel safer for riders. Metro ambassadors supplement traditional law enforcement officers and provide a dual public safety and customer service function. They provide directions, answer questions, connect riders to resources, and serve as a welcoming and visible presence that can deter unwanted behavior. After positive feedback, including 63% of riders who said ambassadors make them feel safer, LA Metro voted to make the program permanent in October 2023.

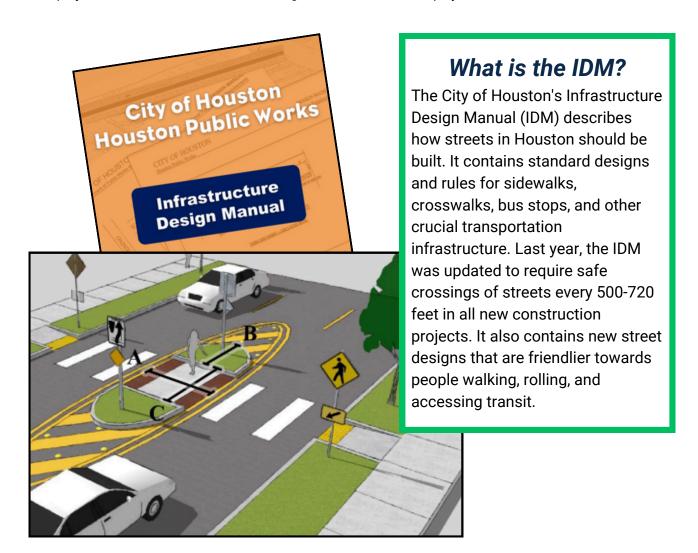
Work with partners to improve stops, sidewalks, and crosswalks.

✓ Accessibility ✓ Stops & Stations

Nearly all trips on transit begin with a walk or roll to a stop, and all riders deserve a safe and comfortable experience getting to and waiting for transit. Many riders we spoke to appreciate the progress METRO is making on improving sidewalks and curb ramps at its stops. Still, the scale of this problem goes beyond METRO's 9,000 stops alone. Riders walk and roll longer distances and must cross high-speed thoroughfares to access transit.

METRO should continue its work to make all stops universally accessible and add shelters in priority locations, but other public agencies need to do their part as well. All agencies that make street improvements – including the City of Houston, Harris County, the Texas Department of Transportation, Tax Increment Reinvestment Zones, and Management Districts – should prioritize accessible sidewalks and safe crosswalks near transit stops. Even private development has a role to play – as new offices, apartment complexes, and institutions improve the right-of-way around their properties, they should work to incorporate bus shelters and safe walking paths in their projects.

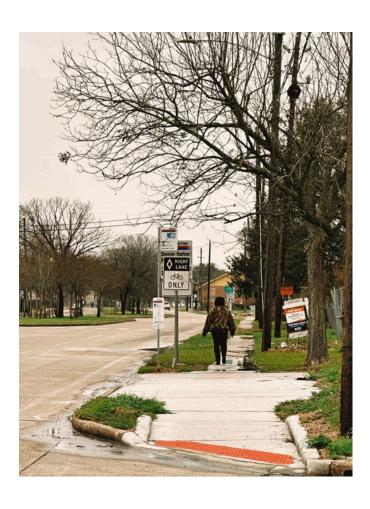
Recent updates to the City of Houston's Infrastructure Design Manual (IDM) include many higher standards for people accessing transit. The City and METRO should work together to enforce these standards and build more projects that meet them in areas with high demand for transit equity.



Accelerate the voter-approved METRONext Moving Forward Plan.

- √ Frequency ✓ Reliability ✓ Span of Service ✓ Accessibility
- √ Stops & Stations
 √ Network Coverage
 √ Customer Service & Safety

Riders recognize the value of METRO's high-quality services – many specifically mentioned the light rail, the METRORapid Silver Line, and frequent Red routes like the 2 Bellaire and 82 Westheimer as the kinds of service they would like to see in their communities. At the same time that METRO improves its local bus service, METRO should also work to expand these high-quality services by accelerating the METRONext Moving Forward plan. Many projects currently in development, such as the University Corridor, Gulfton Corridor, and Inner Katy Corridor METRORapid lines, would significantly improve the frequency, speed, and reliability of trips to and from TEDI high demand areas. METRO should prioritize TEDI high demand areas in future projects such as BOOST and Regional Express.







Conclusion

Public transit helps support life in Houston for riders and non-riders alike. For the Houstonians that make over 200,000 trips each weekday, it's a lifeline to work, school, healthcare, and other opportunities. Even those who don't ride rely on METRO to bring their employees, students, family, and friends to and from their daily duties. While the onset of the COVID-19 pandemic significantly disrupted transit service and ridership in Houston, ridership is steadily increasing, especially on the local bus network which has almost fully recovered its prepandemic levels. Still, many riders are waiting longer for the bus today than in 2019. Most routes with reduced service levels run within areas of high demand for affordable transportation as demonstrated by the 2024 Transportation Equity Demand Index.

Riders we spoke with are clear: **run more frequent service.** 38% of responses to the 2024 Houston Bus Rider Survey mentioned increasing frequency and reducing wait times as an improvement they would like METRO to make. Of those surveyed who reported riding less often, 52% cited frequency as a factor. Equity in Transit: 2024 calls on METRO to heed the call for more frequent service by **re-affirming its existing commitment to increase service by 25% above pre-pandemic levels**, as outlined in the METRONext Moving Forward Plan approved by voters in 2019.

Additional recommendations, based on survey results and data analysis, include:

- Ensure all on-time performance data is publicly available.
- Take a comprehensive approach towards rider safety.
- Work with partners to improve stops, sidewalks, and crosswalks.
- Accelerate the voter-approved METRONext Moving Forward Plan, focusing first on TEDI high demand areas.

LINK Houston stands ready to serve as a partner and resource to all who seek to improve transportation in our region. To get involved, visit <u>LINKHouston.org</u>.



Appendix

TEDI 2024 Documentation

The Transportation Equity Demand Index—TEDI—identifies the areas of highest demand for equitably improving affordable transportation relative to all other parts of the METRO service area. The primary statistical method was to transform each block group's values for 15 indicators into a percentile rank between 1 and 100 and then find the average of all 15 indicators. The result is a rank order of each block group in comparison to all other block groups. Higher values mean higher relative priority and feasibility for equitable transportation. Table 1 provides details on each of the 15 TEDI indicators. Figure depicts the methodology of overlaying 15 indicators. Figure , on the next page, depicts the relative distribution of each indicator.

CATEGORY	INDICATOR	FORMAT	GEOGRAPHY	YEAR	UPDATED	SOURCE
Fundamental Demographic	Households in Poverty	Percent	Block Group	2018- 2022	Annual	U.S. Census Bureau, American Community Survey
Demand	Single Parent Female Headed Households with Children Under Age 18	Percent	Block Group	2018- 2022	Annual	U.S. Census Bureau, American Community Survey
	Households with One or More Persons with a Disability	Percent	Block Group	2018- 2022	Annual	U.S. Census Bureau, American Community Survey
	Homes of Workers with Jobs Paying Less Than \$15,000 Annually	Number	Block	2021	Annual	U.S. Census Bureau, Longitudinal Employer- Household Dynamics
	Work Sites of Workers with Jobs Paying Less Than \$15,000 Annually	Number	Block	2021	Annual	U.S. Census Bureau, Longitudinal Employer- Household Dynamics
Likely Higher Transit Use	People of Color Population	Percent	Block Group	2018- 2022	Annual	U.S. Census Bureau, American Community Survey
(i.e., propensity, latent demand,	Zero Vehicle Available Households	Percent	Block Group	2018- 2022	Annual	U.S. Census Bureau, American Community Survey
or induced demand)	Workers Commuting by Transit	Percent	Block Group	2018- 2022	Annual	U.S. Census Bureau, American Community Survey
	Homes of Workers with High School Education or Less	Number	Block	2021	Annual	U.S. Census Bureau, Longitudinal Employer- Household Dynamics
	Work Sites of Workers with High School Education or Less	Number	Block	2021	Annual	U.S. Census Bureau, Longitudinal Employer- Household Dynamics
Human and Built	Population Density	Number	Block Group	2018- 2022	Annual	U.S. Census Bureau, American Community Survey
Environment Suitability	Household Density	Number	Block Group	2018- 2022	Annual	U.S. Census Bureau, American Community Survey
	Street Intersection Density	Number	Block Group	2020	Annual	Center for Neighborhood Technology
	Average Block Perimeter (Feet)	Number	Block Group	2020	Annual	Center for Neighborhood Technology
	Compact Neighborhood Score	Number	Block Group	2020	Annual	Center for Neighborhood Technology

Figure 12, TEDI Indicator Details



Figure 13, Illustration of Methodology

Transportation Equity Demand Index Indicators

Maps depict relative distribution in the METRO service area by block group: darker colors indicate higher demand for equitable, effective transportation for people walking, rolling, biking, and riding transit. Black points mark frequent transit on Sundays pre-COVID (<15 minutes, 6 a.m. to 9 p.m.).

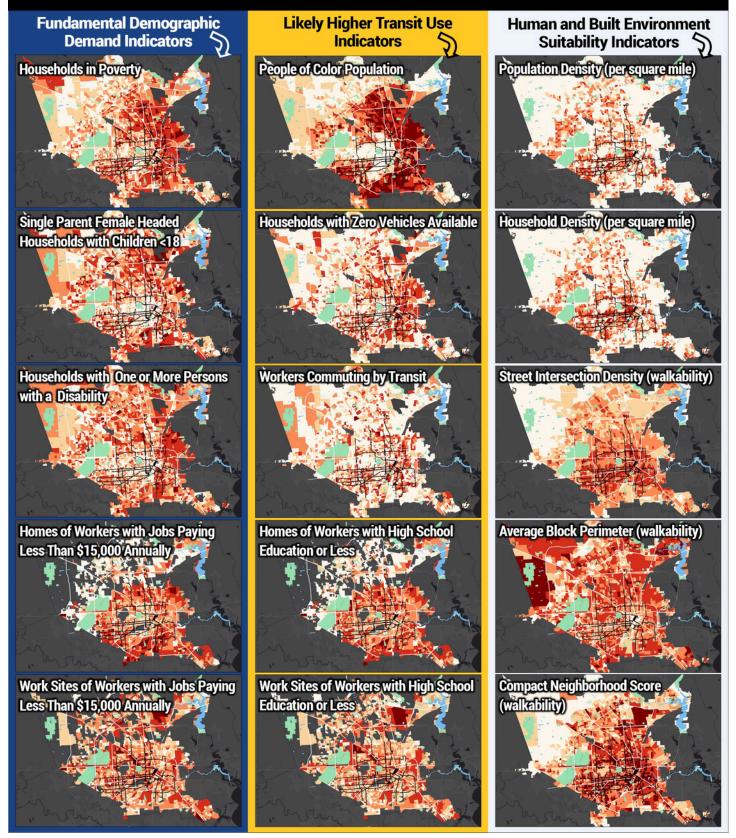


Figure 14, TEDI Individual Indicators

Figure 15 illustrates TEDI results by block group. The darker areas are locations where affordable transportation (i.e., transit, walking, rolling, and biking) is in high demand in Houston.

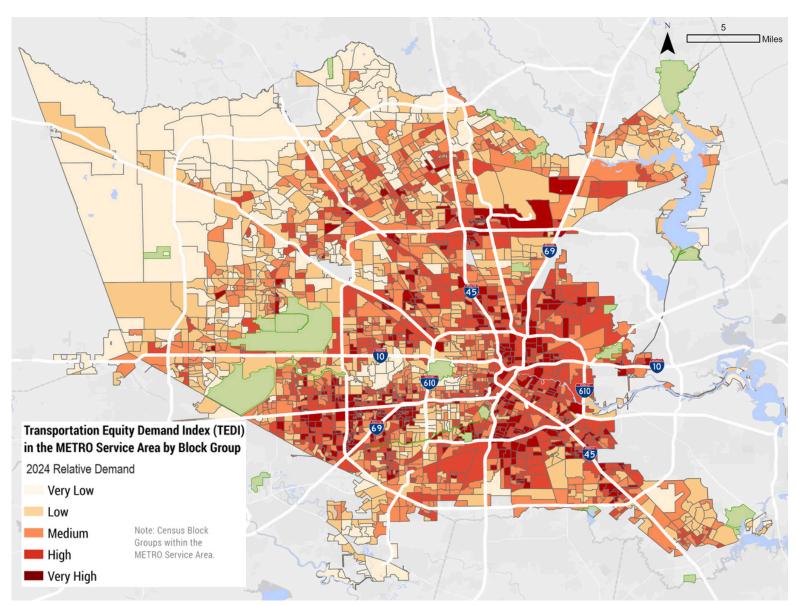


Figure 15, TEDI 2024, Houston METRO Service Area

LINK Houston conducted further analysis to identify the highest-demand areas of the region. ArcGIS Pro software tools were used, specifically the Optimized Hot Spot Analysis tool (which iterates Getis-Ord Gi* and Moran's I statistics) to identify statistically significant concentrations of demand.

Figure 16 illustrates the results of the spatial statistics. The "High TEDI Demand 99% Confidence" areas are the priority list of high demand areas for equitable and affordable transportation, whether that be transportation infrastructure (sidewalks, crosswalks, bikeways, and transit stops/stations) or transportation services (i.e., public transit operations).

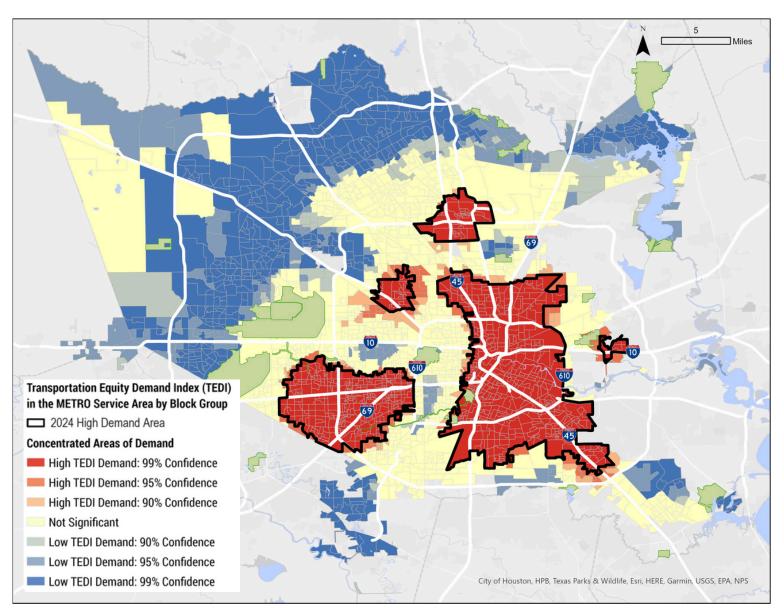


Figure 16, TEDI 2024, Statistically Concentrated "High TEDI Demand 99% Confidence Areas"

		Centr	al East	Far	East	Green	spoint	Nor	thwest	Sout	thwest	AR	H DEMAND EAS	Al	OTHER REAS	AREA	SERVICE A TOTAL
	CHARACTERISTIC	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number
	Population	14%	597.532	0%	15,724	1%	63,677	1%	41,653	11%	489,087	27%	1,207,673	73%	3,195,732		
	Working Population	12%	262,722	0%	6,356	1%	28,894	1%	19,751	12%	242,571	27%	560,294	73%	1,542,356		2,102,650
	Households	14%	223,196	0%	5,092	1%	20,559	1%	15,904	12%	189,579	29%	454,330	71%	1,130,839		
	Land Area (square miles)	7%	137.1	0%	3.2	1%	15.9		7.8		57.8	12%	221.7	88%	1,663.7	100%	1885.4
		Percent		Percent		Percent		Percent		Percent		Percent		Percent		Percent	
CATEGORY	INDICATOR	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number		Number	Rate	Number
Fundamental	Housholds in Poverty	23%	50,980	22%	1,095	28%	5,782	24%	3,802	21%	40,631	23%	102,290	11%	122,201	13%	213,293
Demographic Demand	Single Parent Female Headed Households with Children < 18	8%	18,194	18%	933	16%	3,367	10%	1,645	10%	19,865	10%	44,004	8%	84,959	8%	126,105
	Households with One or More Persons with a Disability	25%	56,881	23%	1,149	19%	3,844	21%	3,375	18%	34,482	22%	99,731	21%	233,559	19%	307,023
	Homes of Workers with Jobs Paying Less than \$15,000 Annually	х	47,200	x	1,221	x	5,898	x	3,471	×	33,407	x	91,197	x	254,024	x	201,253
	Work Sites of Workers with Jobs Paying Less than \$15,000 Annually	х	86,162	x	1,725	х	9,702	x	4,129	х	54,393	X	156,111	х	286,563	x	307,386
Likely Higher	People of Color Population	87%	522,647	93%	14,596	96%	60,876	82%	34,028	84%	411,216	86%	1,043,363	67%	2,130,957	71%	3,105,507
Transit Use	Zero Vehicle Available Households	12%	27,070	7%	366	12%	2,538	12%	1,928	13%	24,516	12%	56,418	4%	49,160	6%	93,323
	Workers Commuting by Transit	4.3%	11,352	2.0%	125	2.8%	797	2.9%	576	6.0%	14,557	4.9%	27,407	1.4%	21,477	2.5%	53,422
	Homes of Workers with High School Education or Less	x	91,531	x	2,459	x	11,518	х	7,308	x	66,634	х	179,450	х	535,487	x	353,025
	Work Sites of Workers with High School Education or Less	×	226,875	x	3,107	x	24,134	x	9,196	×	81,653	x	344,965	×	478,862	×	597,010
Human and	Population Density	X	4,358	X	4,981	X	4,015	X	5,360	X	8,461	X	5,447	X	1,921	х	2,336
Built	Household Density	X	1,628	X	1,613	X	1,296	X	2,047	X	3,280	X	2,527	X	680		1,115
Environment	Street Intersection Density	X	232	X	112	x	133	X	183	X	269	X	242	X	119	х	158
Suitability	Average Block Perimeter (feet)	X	1,961	X	1,704	X	1,492	X	2,233	X	1,683	X	1,856	X	2,024		1,954
	Compact Neighborhood Score	X	5.98	х	3.14	X	4.43	X	5.97	X	5.82	X	5.84	X	3.44	х	4.20

Figure 17, TEDI 2024, Summary of Indicators by High Demand Area

Service Comparison Documentation

LINK Houston compared typical headways (the time between scheduled departures) on all local bus routes between October 2019 and October 2023 at four schedule times: Weekdays at 7am, Weekdays at 12pm, Weekdays at 9pm, and Saturdays at 12pm. Comparisons for all routes at those times are shown in the tables below:

Figure 18, Comparison of Headways for Routes 3-30

	Oct 2019	Oct 2019	Oct 2019	Oct 2019	Oct 2023	Oct 2023	Oct 2023	Oct 2023	Change	Change	Change	Change
Route	Weekday 7am	Weekday 12pm	Weekday 9pm	Saturday 12pm	Weekday 7am	Weekday 12pm	Weekday 9pm	Saturday 12pm	Weekday 7am	Weekday 12pm	Weekday 9pm	Saturday 12pm
2 Bellaire	10	15	20	15	10	15	20	15	0	0	0	0
3 Langley / Little York 1	30	60	60	45	45	45	45	45	15	-15	-15	0
4 Beechnut	10	15	30	15	10	15	30	15	0	0	0	0
5 Southmore	30	45	45	45	30	45	45	45	0	0	0	0
6 Jensen / Greens												
(Downtown TC to Tidwell TC)	30	30	30	30	15	30	30	30	-15	0	0	0
6 Jensen / Greens												
(Downtown TC to Greenspoint TC)	60	60	60	60	15	30	30	30	-45	-30	-30	-30
7 West Airport	20	30	30	30	30	30	30	30	10	0	0	0
8 West Bellfort	20	30	30	30	15	20	30	30	-5	-10	0	0
9 Gulfton / Holman	30	30	30	30	30	30	30	30	0	0	0	0
10 Willowbend	30	60	60	60	30	60	60	60	0	0	0	0
11 Almeda / Lyons												
(Gellhorn & 610 to Fannin South TC)	15	30	30	30	30	30	30	30	15	0	0	0
11 Almeda / Lyons												
(Gellhorn & 610 to Hiram Clarke TC)	30	60	60	60	30	30	30	30	0	-30	-30	-30
14 Hiram Clarke	15	30	30	30	15	30	30	30	0	0	0	0
20 Canal / Memorial												
(Magnolia TC to Downtown)	15	30	30	30	15	30	30	30	0	0	0	0
20 Canal / Memorial												
(Magnolia TC to Uptown)	15	30	No Service	30	15	30	30	30	0	0	New Service	0
23 Clay / West 43rd	30	60	60	60	60	60	60	60	30	0	0	0
25 Richmond												
(Eastwood TC to Westchase)	20	30	60	30	20	30	60	30	0	0	0	0
25 Richmond												
(Eastwood TC to Mission Bend TC)	20		60		20		60		0	0	0	0
25 Richmond (combined)	10				10		30		0	0	0	-
26 Long Point / Cavalcade	15		30		15		15		0	0	-15	
27 Shepherd	15		30	15	15		15		0	0	-15	15
28 OST - Wayside	20	30	No Service	30	20	30	30	30	0	0	New Service	0
29 Cullen / Hirsch	20	30	30	30	20	20	20	20	0	-10	-10	-10
30 Clinton / Ella	30	60	60	60	50	50	50	50	20	-10	-10	-10

Note 1: Route 3 Langley / Little York was extended during the comparison period.

Figure 19, Comparison of Headways for Routes 32-59

	Oct 2019	Oct 2019	Oct 2019	Oct 2019	Oct 2023	Oct 2023	Oct 2023	Oct 2023	Change	Change	Change	Change
Route	Weekday 7am	Weekday 12pm	Weekday 9pm	Saturday 12pm	Weekday 7am	Weekday 12pm	Weekday 9pm	Saturday 12pm	Weekday 7am	Weekday 12pm	Weekday 9pm	Saturday 12pm
32 Renwick / San Felipe	30	30	30	30	30	30	30	30	0	0	0	0
33 Post Oak vs. 433 Silver Line 2												
(Northwest TC to Westpark/Lower Uptown TC)	15	15	30	15	12	12	15	12	-3	-3	-15	-3
33 vs. 20 ³												
(Westpark/Lower Uptown TC to Bellaire TC)	15	15		15	15		30	30	0	15		15
36 Kempwood	15	30	30	30	20	20	20	20	5	-10	-10	-10
29 vs. 36 °												
(Northline TC to Kashmere TC)	20	30	30	30	20	20	20	20	0	-10	-10	-10
38 Manchester - Lawndale	60		No Service	60	60	60	0	60	0		No Service	0
39 Katy Freeway	30		No Service	40	40		0	40	10	0	No Service	0
40 Telephone / Heights	17	30	30	30	17	30	30	30	0	0	0	0
41 Kirby / Polk	20	30	30	30	30	30	30	30	10	0	0	0
40/41 (Combined)	20	15	15	15	20	25	15	15	0	10	0	0
44 Acres Homes	20	30	30	30	20	30	30	30	0	0	0	0
45 Tidwell	15	30	30	30	15	30	30	30	0	0	0	0
46 Gessner	15	15	30	15	15	15	30	15	0	0	0	0
47 Hillcroft	30	30	30	30	15	30	30	30	-15	0	0	0
48 Market	30	60	60	60	60	60	60	60	30	0	0	0
49 Chimney Rock / S. Post Oak	20	30	30	30	20	30	30	30	0	0	0	0
50 Broadway	12	12	24	15	15	15	30	30	3	3	6	15
51 Hardy - Kelley	30	30	No Service	30	30	30	0	30	0	0	No Service	0
52 Hardy - Ley	22	30	30	30	30	30	30	30	8	0	0	0
51/52 (Combined)	15	15	30	15	15	15	30	15	0	0	0	0
54 Scott												
(Downtown TC to MLK Health)	8	15	30	15	10	15	30	15	2	0	0	0
54 Scott												
(Downtown TC to Hiram Clarke TC)	30	30	30	30	10	15	30	15	-20	-15	0	-15
56 Airline / Montrose ⁵								15 (SB)				0 (SB)
(Greenspoint TC to Northline TC)	12	15	20	15	10	10	30	21 (NB)	-2	-5	10	7 (NB)
56 Airline / Montrose												
(Greenspoint TC to TMC TC)	12	15	20	15	20	20	30	30	8	5	10	15
58 Hammerly	30	60	No Service	60	60	60	60	60	30	0	New Service	0
59 Aldine Mail	60	60	No Service	60	60	60	60	60	0	0	New Service	0

Note 2: Route 433 Silver Line replaced Route 33 Post Oak for this segment during the comparison period.

Note 5: Route 56 Airline / Montrose runs every 15 minutes southbound from Greenspoint TC, and up to every 21 minutes northbound from Northline TC.

Note 3: Route 20 Canal / Memorial replaced Route 33 Post Oak for this segment during the comparison period.

Note 4: Route 36 Kempwood replaced Route 29 Cullen / Hirsch for this segment during the comparison period.

Figure 20, Comparison of Headways for Routes 60-85

	Oct 2019	Oct 2019	Oct 2019	Oct 2019	Oct 2023	Oct 2023	Oct 2023	Oct 2023	Change	Change	Change	Change
Route	Weekday 7am	Weekday 12pm	Weekday 9pm	Saturday 12pm	Weekday 7am	Weekday 12pm	Weekday 9pm	Saturday 12pm	Weekday 7am	Weekday 12pm	Weekday 9pm	Saturday 12pm
60 Cambridge											Service	
(TMC TC to El Camino)	10	20	30	20	15	20	No Service	20	5	0	Discontinued	0
60 Cambridge											Service	
(TMC TC to Southeast TC)	30	40	30	40	40	40	No Service	40	10	0	Discontinued	0
63 Fondren	15	15	30	15	15	15	15	15	0	0	-15	0
64 Lincoln City	60	60	No Service	60	60	60	0	60	0	0	New Service	0
65 Bissonnet	11	15	30	15	11	15	30	20	0	0	0	5
66 Quitman	30	60	No Service	60	60	60	60	60	30	0	New Service	0
67 Dairy Ashford	30	60	No Service	60	60	60	60	60	30	0	New Service	0
68 Braeswood												
(TMC TC to West Belt)	15	30	30	30	30	30	30	30	15	0	0	0
68 Braeswood												
(TMC TC to Lee Clinic)	15	30	No Service	No Service	30	30	0	0	15			No Service
70 Memorial	30	60	No Service	60	60	60	0	60	30	0	No Service	0
71 Cottage Grove	60	60	No Service	60	60	60	0	60	0	0	No Service	0
72 Westview	30	60	60	60	60	60	60	60	30	0	0	0
73 Bellfort	9	12	24	15	12	12	12	15	3	0	-12	0
75 Eldridge	30	60	No Service	60	60	60	0	60	30	0	No Service	0
76 Evergreen	30	30	30	60	30	30	30	60	0	0	0	0
77 Homestead	60	60	60	60	60	60	60	60	0	0	0	0
78 Wayside	60	60	60	60	60	60	60	60	0	0	0	0
79 Irvington ⁶	30	60	No Service	60	60	60	60	60	30	0	New Service	0
80 MLK / Lockwood												
(MLK & Park Village to Kashmere TC)	15	15	30	15	20	20	20	20	5	5	-10	5
80 MLK / Lockwood												
(MLK & Park Village to Tidwell TC)	30				40	40			10			
82 Westheimer	7	10				8			0	_	_	2
83 Lee Road - JFK	60		No Service	60	60				0	0	No Service	0
84 Buffalo Speedway	15	30	30	30	15	30	30	30	0	0	0	0
85 Antoine / Washington												
(Downtown to SH-249)	10	15	30	15	12	15	15	15	2	0	-15	0
85 Antoine / Washington			700									
(Downtown to Greenspoint TC)	20	30	30	30	24	30	30	30	4	0	0	0

Figure 21, Comparison of Headways for Routes 86-402

	Oct 2019	Oct 2019	Oct 2019	Oct 2019	Oct 2023	Oct 2023	Oct 2023	Oct 2023	Change	Change	Change	Change
Route	Weekday 7am	Weekday 12pm	Weekday 9pm	Saturday 12pm	Weekday 7am	Weekday 12pm	Weekday 9pm	Saturday 12pm	Weekday 7am	Weekday 12pm	Weekday 9pm	Saturday 12pm
86 FM 1960 / Imperial Valley	15	30	30	30	15	30	30	30	0	0	0	0
87 Sunnyside	30	60	No Service	60	30	60	60	60	0	0	New Service	0
88 Sagemont	30	60	60	60	30	30	30	30	0	-30	-30	-30
89 Dacoma	30	30	No Service	30	45	45	45	45	15	15	New Service	15
96 Veterans Memorial	60	60	60	60	30	30	30	45	-30	-30	-30	-15
97 Settegast	60	60	No Service	60	60	60	0	60	0	0	No Service	0
98 Briargate	30	60	No Service	60	60	60	0	60	30	0	No Service	0
99 Ella - FM 1960	30	30	30	30	30	30	30	30	0	0	0	0
102 Bush IAH Express	15	30	30	30	15	30	30	30	0	0	0	0
108 Veterans Memorial Express												
(Downtown to N Shepherd Park & Ride)	15	No Service	No Service	No Service	15	No Service	No Service	No Service	0	No Service	No Service	No Service
108 Veterans Memorial Express									Service			
(Downtown to FM 1960)	15	No Service	No Service	No Service	No Service	No Service	No Service	No Service	Discontinued	No Service	No Service	No Service
137 Northshore Express												
(Downtown to Fifth Ward/Denver Harbor TC)	13	15	21	15	13	15	21	15	0	0	0	0
137 Northshore Express												
(Downtown to Maxey Road Park & Ride)	13	15	21	30	13	15	21	30	0	0	0	0
151 Westpark Express												
(Downtown to Hillcroft Park & Ride)	11	No Service	No Service	No Service	15	No Service	No Service	No Service	4	No Service	No Service	No Service
151 Westpark Express												
(Downtown to Mission Bend TC)	11	No Service	No Service	No Service	15	No Service	No Service	No Service	4	No Service	No Service	No Service
152 Harwin Express	20	30	No Service	No Service	30	30	0	30	10	0	No Service	0
153 Harwin Express	20	30	30	30	30	30	30	30	10	0	0	0
152/153 (Combined)	10	15	30	15	15	15	30	15	5	0	0	0
160 Memorial City Express	No Service	60	No Service	60	60	60	60	60	New Service	0	New Service	0
161 Wilcrest Express	30	30	30	30	30	30	30	30	0	0	0	0
162 Memorial Express	30	60	60	60	60	60	60	60	30	0	0	0
160/161/162 (Combined)	15	15	30	15	15	15	30	15	0	0	0	0
360 Peerless Shuttle	30	60	60	60	30	30	30	60	0	-30	-30	0
399 Kuykendahl Shuttle	60	60	No Service	60	60	60	No Service	60	0	0	No Service	0
402 Bellaire Quickline	15	15	No Service	No Service	30	30	No Service	No Service	15	15	No Service	No Service

2024 Bus Rider Survey Materials

Training Reference

Houston Bus Rider Survey 2024

Overall Goal for Our Canvassing

Understand individual and collective priorities for improving local bus service in Houston –by speaking directly with current, active bus riders at transit centers in their communities.

Canvassing Overview

LINK Houston staff and volunteers canvassing bus riders will approach people at transit centers. The canvasser will ask something similar to the following:

"Hello. I am a volunteer with LINK Houston, a nonprofit focused on better, more equitable transportation. May I have about five minutes of your time to ask you a few questions? I want to understand what would improve your experience relying on bus service. Participation is entirely voluntary, and your responses are confidential."

- If the individual does not agree, then the canvasser will say: "Thank you for your time. Have a great day."
- If the individual agrees, then the canvasser will promptly proceed to administer the survey: "Great ..."
- If the individual agrees but the interview is cut short (i.e., the bus arrives), then the canvasser may ask about an
 email address or phone number (i.e., so LINK Houston can follow-up) and/or provide the postcard and say
 "Thank you for your time. Have a great day."
- If the individual is interested but has too little time to begin the interview, then the canvasser will provide the
 postcard and say "You can take the survey later on your phone or a computer. Have a great day."

Requirements and Tips

All volunteers must complete the volunteer form in advance.

Safety

- Stay in groups; always 2+ persons within sight of one another.
- Be aware of surroundings; your personal safety and safety of people around you is always the highest priority.
- At any time, if you feel discomfort or sense risk, please leave the area and head to a different stop.
- If parking, please leave valuables at home or hidden out of sight.
- Obey all traffic laws, including while crossing streets.
- Make all contacts with people in safe locations—never on the street itself or in a driveway.
- · Give people time and space if they are getting off a bus or preparing to board a bus.

Demeanor

- · Always remain calm and courteous.
- · Disengage speaking with anyone who is agitated, or becomes so during the interview.
- Avoid direct eye contact with people who are approaching from a distance, such as while they cross a street, to
 avoid alarming the person.

Clothing

- Everyone involved will dress in weather appropriate, comfortable clothing.
- · Nice casual clothes without distracting logos or words are strongly preferred (solid colors or patterns are best).
- Wear your LINK Houston shirt/button/badge.

Contact Information

Please direct any questions, comments, or concerns to Peter Eccles by calling or texting 617.285.6499 or emailing peter@linkhouston.org.

Figure 22, Survey Training Reference

Houston Bus Rider Survey 2024

Location / Event:

Hello. I am a volunteer with LINK Houston, a nonprofit focused on advocacy for better, more equitable transportation. We want to understand what would improve your experience getting around Houston, especially by riding the bus. May I have about 2 or 3 minutes of your time to ask you a few questions? Participation is entirely voluntary, and your responses are confidential.



METRO operates public transit services in the Houston region. Transit services include local and express bus routes, light rall, bus rapid transit, curb2curb, and METROLift (i.e., for some people with a disability).

Do you ride any METRO services, such as the buston of Yes "I currently ride a METRO service."		used to ride METRO."	O No "I have ne	ever used METRO services."
•		1		•
We have a few questions about your experience riding METRO and how things could be better. Which METRO services or routes do/did you use? METROLift Route 26 Long Route 80 MLK METRORail Route 80 MLK METRORapid Silver Line Route 50 Broad Route 98 Briargate Other routes	Point / Cavalcade / Lockwood	We would like to under METRO services and to in general, could be be Why did you stop ridi why are you riding Mi	ransportation, etter. ng METRO /	We would like to understand how transportation could be better. What would help you choose to ride METRO sometimes?
How often do you use a METRO service (bus, rail, O1 day a week or less O2 to 5 days per week O				
Compared to before the pandemic (2019), are you O More often O About the same	using METRO Less often			
What do you like about using METRO; what works	well?	What would help you METRO again in the f		
What would you like to be better about METRO?		You may want to think about: - Bus service quality (frequency transfers, on-time reliability, we cleanliness, customer service, - Street quality (sidewalks, intellighting, landscape trimming), - Bus stop quality (shelter, seat maintenance, cleanliness, info	vait times, hours, , fares), rsections, safety, , or ting, trash can,	You may want to think about: - Bus service quality (frequency, route locations, hours, fare), - Street quality (sidewalks, intersections, lighting, shade, safety), - Bus stop quality (stop location, shelter, seating, information signs).
		. ♣		•
		In general, what we Houston better?	ould make your ex	perience getting around
You may want to think about: - The bus service (frequency, route locations, transit center locations, transit wait times, hours, cleanliness, customer service, fares, trip time), - Getting to your stop (sidewalks, intersections, safety, lighting, landscape - The stop litself (location, shelter, seating, trash can, maintenance, clean)	e trimming), or			
Almost done! We have a few optional questions help us understand who participated in our sur-		*		
What is your age? O Prefer not to answer	65 or over	☐ Middle Eastern ☐ /	ity? Mark all that ap Vhite, Caucasian Asian	Prefer not to answer
OFemale OMale O Non-binary O Gender	•		lmerican Indian or lative Hawaiian or	Alaska Native Other Pacific Islander
Do you have a disability? O Yes O No O		African A	nother:	
Do you ever use a wheelchair, walker, cane, or oth device to get around Houston? ○ Yes ○No ○		LINK Houston would like to sha share an email address or phon		en we publish our report. Please
	Prefer not to answer			
Language: Person Type: bus rider / pedestr	ian / bicyclist / another	We will not spam you or share your e	man with other entities.	
Day: weekday / weekend Time: AM / PM Bus Sto	p#:	Thank you for	your time. Have	e a great, safe day!

Figure 23, Survey Form - English

Bus Routes Served:

Encuesta de pasajeros de autobús 2024

Hola. Soy voluntario de LINK Houston, una organización sin fines de lucro que aboga por un transporte mejor y más equitativo. Queremos entender qué mejoraría su experiencia al moverse por Houston, especialmente al viajar en autobús. ¿Me regala unos 2 o 3 minutos de su tiempo para hacerle unas preguntas? La participación es voluntaria y sus respuestas son confidenciales.



METRO opera servicios de transporte público en la región de Houston. Los servicios de tránsito incluyen rutas de autobuses locales y

11 Milion alorin annisis de METRO anno al autobre 2	en les aces, basa aigunas bersanas con aiscal	outroup.
¿Utiliza algún servicio de METRO, como el autobús?	olía viajar en METRO". O No "Nunca ho	· · · · · · · · · · · · · · · · · · ·
O Si, "Actualmente viajo en METRO". O No "S	olía viajar en METRO". O No "Nunca ho	e usado METRO".
•	•	•
Tenemos algunas preguntas sobre su experiencia	Nos gustaría entender cómo	Nos gustaría entender cómo el
al viajar en METRO y cómo podría mejorar.	los servicios y el transporte de	transporte podría ser mejor.
¿Qué servicios o rutas de METRO utiliza? Marque todo lo aplicable.	METRO, en general, podrían ser	Out to see but
☐ METROLift ☐ Ruta 26 Long Point / Cavalcade	¿Por qué dejo de viajar en	¿Qué te ayudaría
☐ METRORail ☐ Ruta 80 MLK / Lockwood	METRO? ¿Por qué lo usa menos?	a elegir viajar en METRO a veces?
☐ METRORapid Silver Line ☐ Ruta 50 Broadway	7	veces
☐ Ruta 98 Briargate ☐ Otras rutas		
¿Con qué frecuencia utiliza METRO (autobús, tren, METROLift, etc.) ○ 1 día a la semana ○ 2-5 días por semana ○ 6-7 días por semana		
En comparación con antes de la pandemia (2019), utiliza Metro?		
Mas frecuente Misma frecuencia Menos frecuente		
	What would halo you should be de-	
¿Qué le gusta de usar METRO; ¿Qué funciona bien?	What would help you choose to ride	
¿Que le gusta de usar me i ko; ¿Que funciona bien?	METRO again in the future?	
	Es posible que desee pensar en: • Calidad de la calle (aceras, intersección, seguridad,	Es posible que desee pensar en:
	iluminación, vegetación), • Calidad de la parada (refugio, asientos, basurero,	 <u>Calidad de la calle (</u>aceras, intersección, iluminación, sombra, seguridad),
	mantenimiento, limpieza, carteles de información), o	 Calidad de la parada (ubicación de la
¿Qué le gustaría mejorar de METRO?	 Calidad del servicio de autobus (ubicación de rutas, frecuencia, transferencias, fiabilidad de tiempo, 	parada, refugio, asiento, información), o • <u>Calidad del servicio de autobus</u> (horario,
	espera, horas, limpieza, servicio al cliente, tarifas).	ubicación de rutas, frecuencia, tarifa).
	■	•
	En general, ¿qué mejoraría su exper	iencia
	de moverse por Houston?	
Es posible que desee pensar en:		
 Cómo llega a su parada (aceras, intersección, seguridad, iluminación, vegetación), Parada (ubicación, refugio, asientos, basurero, mantenimiento, limpieza, información, señalización). 	0	
 Servicio de autobús (ubicación de rutas, ubicación de centros de tránsito, frecuencia, limpieza, 	1	
transferencias, fiabilidad de tiempo, horas, limpieza, servicio al cliente, tarifas, tiempo de viaje).		
¡Casi termino! Tenemos unas preguntas opcionales sobre usted para	*	
ayudarnos a comprender quién participó en la encuesta.	Outles were stricted to	-M-
¿Cual es tu edad? O Prefiere no responder	¿Cuál es su raza, etnia? Marque todo lo aplic	
O 18 o menos O 18 a 34 O 35 a 64 O 65 o más	☐ Latino/a ☐ Blanco/a, caucási ☐ Medio Oriental ☐ Asiático/a	CO/a Prefiero no responder
¿Eres? O Prefiere no responder		/a o Nativo/a de Alaska
O Femenina O Masculino O No binario O Otro genero		otra isleña del Pacífico
¿Tiene alguna discapacidad? O Sí O No OPrefiero no responder	Africano/a Otro:	The state of the s
¿Utiliza silla de ruedas, andador, bastón u otro dispositivo de		
movilidad para moverse? OSí ONo O Prefiero no responder	LINK Houston quisiera compartirle los resultados de	
		ero de teléfono si desea:
•	Comparta su dirección de correo electrónico o núme	
¿Trabaja desde casa? O Todos los dias O Algunos dias		
¿Trabaja desde casa? O Todos los dias O Algunos dias	No le enviaremos spam ni compartiremos su correo el	
¿Trabaja desde casa? ○ Todos los dias ○ Algunos dias ○ Nunca/Siempre voy en persona ○ N/A ○ Prefiero no responder		ectrónico con otras entidades.

Figure 24, Survey Form - Spanish