

BETTER TRANSIT THROUGH OPEN DATA

RIDE

WORLD CLASS TRANSIT FOR NEW ORLEANS

THE CASE FOR
OPEN TRANSIT
DATA REPORTING
FOR THE GREATER
NEW ORLEANS
REGION

MARCH 2025



ABOUT RIDE NEW ORLEANS

Ride New Orleans is an independent nonprofit 501(c)3 organization. *We envision a region in which taking transit enables full access to jobs, education, health care, and other needs that ensure the equitable, thriving community that all residents deserve. Our mission is to win world-class and equitable public transportation that works for all residents across the New Orleans region.*

Visit www.rideneworleans.org to learn more.

REPORT CONTRIBUTORS

Samuel Buckley, AICP - Principal Author
Samuel Strait - Principal Author

RIDE NEW ORLEANS STAFF

Courtney Jackson - Executive Director
Shirani Jayasuriya - Communications Manager

2025 BOARD OF DIRECTORS

Timothy Cardner - Board President
Diana Masters - Secretary
Lawrence Mason III - Treasurer

Eli Ackerman	Shantrell Green
Nathan Alvarez	Valerie Jefferson
Leo J. Arnett	Stacey Olson
Rev. Richard Bell	Vincenzo Pasquantonio
Dimitri Celis	Tara Tolford

REPORT SPONSORS



ORGANIZATIONAL SPONSORS



ACKNOWLEDGMENTS

We are extremely grateful for the numerous people who contributed to this report by brainstorming, reviewing, and editing, as well as those who shared invaluable insights and perspectives.

Table of Contents

About Ride New Orleans.....	2
Table of Contents.....	3
Introduction.....	4
Overview.....	6
Literature Review.....	7
RTA Needs and Goals.....	10
Strategic Mobility Plan.....	10
Service Performance Data.....	11
Case Study: Winnipeg.....	14
Case Study: Maryland.....	15
Case Study: Las Vegas.....	16
Case Study: San Jose.....	16
Case Study: Portland.....	17
Case Study: Austin.....	18
Case Study: Reno.....	20
Network and Access Data.....	21
Case Study: Pittsburgh.....	21
Case Study: Ride New Orleans.....	22
Recommendations.....	25
Author Biographies.....	27
Bibliography.....	27



TABLE OF CONTENTS

The Importance of Open Data

This report aims to demonstrate the many benefits of the New Orleans Regional Transit Authority (RTA) making its data available to the public. By developing and implementing an accessible data hub, the agency can track its progress more easily under a range of metrics while sharing insight and perspective about the value of existing internal data-related assets and their challenges. Accessible data will foster agency transparency and accountability to riders and stakeholders alike.

RIDE New Orleans (RIDE) focuses *away from* real-time data in this report, such as General Transit Feed Specification (GTFS), the most readily available and standardized data type in the industry today. GTFS data is used as a tool for travel planning in the present, such as real-time tracking, rather than for the retrospective study of a system. Through analysis, our report will generate recommendations for publicizing the RTA's historical and current data, as well as provide a call to action for the agency's future data practices. This report will illuminate areas of thematic importance that, if addressed within the agency, will bridge the gap between current capabilities and a robust future data landscape, open to all and moving the RTA forward.

RIDE's open data report reviews recent best-practice literature on open transit data and other agency case study examples, anchoring RIDE's conclusions and recommendations. Additionally, RTA staff members provided RIDE with insights into currently available data, internal data-handling processes, and shortcomings to overcome in this effort.



Ms. Judy waits for her bus to go to work (RIDE)



Riders board an RTA bus (RIDE)

Equitable Transit is Vital for the Greater New Orleans Region

The Greater New Orleans community has a complete and unbreakable stake in our public transportation system. Transit is one of the most paramount public services in daily life. It should promote equity and allow everybody access to healthcare, education, jobs, and other necessities. However, transit remains subpar in the Greater New Orleans region for many reasons, including funding, agency capacity, communications, and data transparency. For instance, according to RIDE's Access to Jobs metric, less than 40% of the region's jobs are accessible to the average Orleans Parish resident within an hour via transit.

Riders deserve a reliable, comprehensive transit network. Career, educational, and recreational opportunities will open up for the entire community when this is achieved. Purely anecdotal evidence about a transit system's strengths and weaknesses cannot reveal the system's state. For that level of transparency and understanding, data is essential. Accessible historical data allows the public to comprehend service improvements better and understand how the system operates, including which neighborhoods remain underserved and why. Measuring a diverse and well-defined set of metrics is necessary for open transit data.

Open Data Lays the Groundwork for Improved Transit

Building and maintaining data infrastructure is no small undertaking, and all transit agencies already do so to an extent to satisfy federal reporting requirements. However, the time, energy, and effort to implement lasting data practices will make for more streamlined agency operations. A relatively modest financial investment around staffing to enhance data analysis capacity and procure technological assets would go a long way toward creating a more accessible system.

Plans to improve the transit system should be community-led and feature ample rider engagement. Strategies and solutions must be rooted in real-world statistics and rider experiences to expect equitable and sustainable outcomes. With all players at the table, substantial data availability makes for more effective agency decision-making. Proper community engagement actively works against the furthering of inequitable system improvements, such as focusing solely on downtown areas and tourist hotspots instead of under-resourced neighborhoods. In short, transparent data bolsters equity by empowering riders to hold their transit agencies accountable and demand positive change.

The RTA is already making strides in the right direction by laying the groundwork for future open data catalogs. In its toolbox are dedicated staff members interested in pursuing open data, data-collection infrastructure such as automatic passenger counters (APCs) and automatic vehicle location (AVL) on buses, and the software to process data and model the effects of intended system improvements.

The RTA's Strategic Mobility Plan

In 2018, the initial iteration of the agency's Strategic Mobility Plan (SMP) was adopted. It reflected a clear commitment to data-driven service improvement. The original SMP included meaningful data goals around reliability and access to opportunities. These goals were to be tracked to achieve the agency's targets. The RTA updated the SMP and its outlined goals in 2023, removing some now-irrelevant items and metrics that were "basically impossible to measure," according to an RTA staff member. Even after significant updates, the SMP's core concepts remained the same. RIDE's report will use specific data metric commitments from the 2023

SMP update to model how effectively the corresponding data has been made available to the public.

The RTA's Fixed Route Service Standards Policy


RTA ferry, bus, and streetcar service is governed by RTA's Fixed Route Service Standards Policy. As a Federal Transit Administration (FTA) requirement legislated by Title VI of the Civil Rights Act of 1964, all American public transportation agencies must enact service standards policies for compliance. The document identifies standards and guidelines to "evaluate, design and modify transit services to meet changing needs and to deliver efficient, high-quality service" (Fixed Route Service Standards & Guidelines 2022, 4). It helps to ensure that RTA decisions and recommendations to policy-makers are objective, transparent, and aligned with regional goals (Fixed Route Service Standards & Guidelines 2022, 4). Processes and criteria used to analyze and plan system changes are laid out in the standards. These focus areas include evaluating and reporting on the existing network (establishing service demand and assessing system performance) and planning and designing service and service changes (designing service and adding, reducing, or changing service) (Fixed Route Service Standards & Guidelines 2022, 4).

Most importantly, the Fixed Route Service Standards & Guidelines define a performance and evaluation reporting schedule so that associated data may be shared. The complete set of standards is meant to be reviewed biannually for updates using the most recent ridership, revenue, and cost figures, and results of the analyses are to be published in an annual and publicly-available Service Standards Report (Fixed Route Service Standards & Guidelines 2022, 4-5). The most recent known version of the RTA's Fixed Route Service Standards Policy was adopted in 2021 and updated in 2022. We could not locate either it or RTA's Service Standards Reports online. Together, the SMP and Fixed Route Service Standards Policy dictate integral RTA responsibilities and commitments necessary to support New Orleans' transit network today and revolutionize it in the future.

In addition to our recommendations regarding the tracking and opening of data for SMP metrics, we call on the RTA to publish both the Fixed Route Service Standards Policy and Service Standards Reports on its website for seamless public accessibility.

In order to create policies and procedures that support open and accessible transit data, Ride New Orleans (RIDE) urges the Regional Transit Authority (RTA) to implement the following recommendations:

- ✓ Provide public access to several datasets via the RTA website including:
 - The Fixed Route Service Standards Policy
 - The Service Standards Reports
 - Data reflecting all metrics for which the agency has statistics available
 - Data for any SMP metrics that aren't currently measured
- ✓ Perform a comprehensive data needs assessment to guarantee the agency possesses the necessary capabilities and resources to build out a sustainable open data platform.
- ✓ Perform an APC (Automatic Passenger Counter) validation on all streetcars except those primarily serving the St. Charles line (#12).
- ✓ Invest in data infrastructure and staffing capacity.
- ✓ Internally designate data responsibilities.
- ✓ Create policies and procedures that emphasize the following attributes of good (open) data: Consistency, granularity, accuracy, and timeliness.
- ✓ Clearly define data sources and their calculation processes.
- ✓ Establish a sustainable methodology to collect data for metrics affected by technological challenges.
- ✓ Develop a robust and easy-to-use open-data portal.

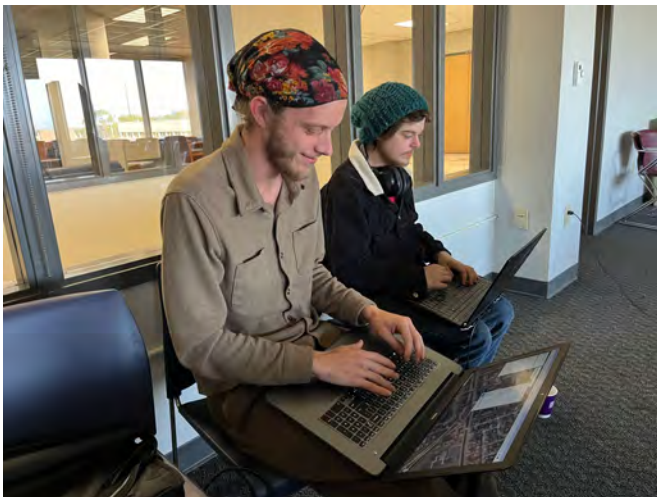


RECOMMENDATION OVERVIEW

Open Data for Equitable Transit Literature Review and Best Practices in Open Transit Data

“Establishing a staff member or team that is dedicated to data management is an important step in addressing challenges in opening transit data” (Data Practices Guidebook 2021, 53).

Like other centralized collections of open information, open transit data presents numerous opportunities. Its detailed transparency ensures the proper flow of information from institutions to the public, particularly in areas that need improvement. In the transit sector, open data fosters agency accountability, enhances equity, drives positive planning changes, and broadens service and scope, offering significant benefits.



RIDE volunteers enter transit data, RIDE

This report aims to identify strong scholarship to enhance RTA data advancement. In examining recent developments in industry practice, a 2021 publication from the National Center for Applied Transit Technology (N-CATT), *The Data Practices Guidebook*, surfaced as the leading literary source on non-real-time open transit data. This guidebook is essential for public transit agencies striving to improve their data tracking and facilitate accessibility. Two sections of the guidebook are particularly pertinent; one focuses on publishing open transit data, and the other on service improvement. “Open data practices lead agencies to promote service awareness and transparency, improve efficiencies, and foster improved relationships with data stakeholders. By delivering data through customer-facing applications, transit agencies can improve customer satisfaction, become more engaged with customers, and improve

service and data quality” (Data Practices Guidebook, 2021, 50).

Two more pertinent quotes explain open data benefits: “By releasing more customer-oriented transit data, many agencies face lower costs associated with customer requests, among other efficiencies. More often than not, open data initiatives also streamline data collection and management practices at transit agencies. These realizations illustrate the efficiencies and potential savings associated with open data” (Data Practices Guidebook 2021, 50).

“A well-documented, centralized internal data repository, for example, helps transit agency staff make use of data and reduces steps required to distribute data but may require dedicated staff time to develop and maintain it” (Data Practices Guidebook 2021, 52).

Increased ridership, for a transit agency, means more revenue, and larger budgets to expand services. Data helps turn these goals into realities, as it reveals how current service can be adjusted to attract more riders. Key markets that must be reflected in the data include job centers (connecting the whole coverage area to the region’s jobs as best as possible), medicine and healthcare hubs, secondary and higher education spaces, intercity/regional connections, shopping and personal business locations, as well as social and recreational hotspots (Data Practices Guidebook 2021, 57). Transit agencies can use outside data sources to calculate metrics, especially regarding access to specific target markets. However, additional datasets are needed to create a more complete understanding of access. Census datasets housed in the ACS (American Community Survey) and LEHD (Longitudinal Employer-Household Dynamics), among others, are necessary for such an analysis (Data Practices Guidebook 2021, 56).

In the RTA’s case, obtaining data from external sources like local governments and public agencies enhances the comprehension of how transit intersects with social, infrastructural, and environmental factors for agency leaders and stakeholders. The N-CATT report adds, “Data sharing is often critical to building a well-functioning multi-modal transportation network. Partnerships for service provisions across modes and with private mobility providers can be facilitated and often require some degree of data sharing. Some public transit agencies have also been working with cities and states to develop and push for regulations to facilitate

access to external data streams” (Data Practices Guidebook 2021, 62). The RTA currently has the tools to geospatially model access using Census statistics and occasionally uses them for internal purposes. This is promising because the tools and capability to do the work already exist. What is lacking is the organizational capacity to implement and maintain the data.

Chapter 3 of *The Data Practices Guidebook*, titled “Open Data,” identifies possible limitations to creating a robust open data hub— many of which exist for the RTA. “Challenges associated with providing open data often relate to resources and organizational limitations, data quality and timeliness, and technical issues” (*Data Practices Guidebook* 2021, 52). Responsibilities around data work must be clearly and consistently denoted and assigned for completion. *The Data Practices Guidebook* states, “Establishing a staff member or team that is dedicated to data management is an important step in addressing challenges in opening transit data” (2021, 53). Without this structuring, agencies cannot adequately maintain data.

“Effective open transit data depends on good internal data management and may require changes to data collection, data processing, and data documentation to ensure data accuracy. Many small transit agencies operate with limited personnel and lack dedicated staff or divisions responsible for data collection and management. Despite the challenges, those processes may yield benefits from simplifying agency workflows to producing better performance statistics” (Data Practices Guidebook 2021, 49).

Chapter 4 of the N-CATT report, “Planning and Performance Monitoring,” covers applying data to service improvements. According to the report, performance monitoring is one of the most basic and essential actions to keep a public transit system, such as RTA, running well. “Performance monitoring of schedule data allows agencies to evaluate service as it is actually delivered to customers. Schedule performance metrics can be compared to planned service, other routes, and peer agencies to determine the quality of service and identify areas for improved operations. The primary sources for schedule data are trip logs or automatic vehicle location (AVL) data. Using this data, planners can measure the actual hours and miles of service provided, on-time performance, delay, dwell time, travel speeds, and actual runtime” (*Data Practices Guidebook* 2021, 77).



Riders wait for buses downtown, RIDE

Even though agencies must track and report much of this information to the Federal Transit Administration’s National Transit Database, actual performance monitoring demands more frequent, regular consideration of the data to implement near-term adjustments, make data-based decisions, and quicken problem-solving decisively. The guidebook reminds readers that “[b]efore conducting a performance monitoring analysis, agencies should define a set of performance metrics that they will calculate for every analysis period, whether on a monthly, quarterly, or annual basis. Some agencies will set targets for each metric, such as an on-time percentage goal or a minimum farebox recovery rate” (*Data Practices Guidebook* 2021, 75). RTA leaders have signaled their intent to implement similar data goals and processes, as outlined in its Strategic Mobility Plan. Furthermore, as the Fixed Route Service Standard Policy requires, some items have already been reported to the FTA and RTA Board of Commissioners. Now is the time to proceed with materializing all associated data for the sake of public transparency and improved rider experience.

The Data Practices Guidebook suggests that agencies be set up to retrieve and analyze data of higher granularity and resolution. Higher granularity can usually be aggregated to lower specifications if needed, but not the other way around (e.g., from more specific stop data to wider route-level numbers). With more resolution, planners can better diagnose the causes of overcrowding – such as canceled service, demand variability, and headway issues (*Data Practices Guidebook* 2021, 68). The following two quotes encourage agencies to implement best practices to track and open data to their communities. The author insists implementation is possible, even if an agency does not yet own the best technologies or employ the newest

methods. No matter the scale or simplicity of the system, data prioritization is worthwhile.

“Automatic fare collection data facilitates analysis of revenue and cost-efficiency measures. Even without passively collected data, agencies can take advantage of regularly collected ridership, trip logs, and fare revenue data to analyze a robust set of performance metrics” (Data Practices Guidebook 2021, 74).

“Even if an agency does not make use of new methods, a facility with data practices can speed the reporting of data for performance-based grants, planning studies, and other requirements” (Data Practices Guidebook 2021, 66).

The Data Transit Riders Want: A Shared Agenda for Public Agencies and Transit Application Developers, published by TransitCenter in December 2018, also highly informed the considerations of this report. TransitCenter focuses on real-time data, which the RTA already makes available on its website in standard GTFS format. This data comprises the entire [Open Transit Data page](#) of the RTA’s site.

TransitCenter also includes critical commentary on general data practices and handling historical metrics. The writer makes recommendations in three key categories: data management and policy, data quality, and data specifications. It reinforces that public mass transit agencies must “recognize the importance of their data” and “make data infrastructure a priority” (*The Data Transit Riders Want* 2018, 4). To ensure quality, data should be shared with accuracy and timeliness. Producing trustworthy data necessitates investment into hardware and software systems (*The Data Transit Riders Want* 2018, 4).

The report corroborates that good data can increase ridership by promoting public trust in a transit system (*The Data Transit Riders Want* 2018, 9). However, presently, with a wide array of hardware, software, and practices, data quality tends to be frustratingly inconsistent across the public transit industry, causing difficulties in comparing or combining data between more than one agency (*The Data Transit Riders Want* 2018, 10). Of course, selecting and enforcing standards is outside the RTA’s control. TransitCenter points out that in many cases, transit agencies lack a “state of good repair mindset” around data infrastructure, struggling to hire data-specialized staff with limited resources (*The Data Transit Riders Want* 2018, 11). In conclusion,

TransitCenter calls on mass transit providers to publish high-quality data, in standard formats whenever possible, and to hire the staff to make it happen (*The Data Transit Riders Want* 2018, 37).

“Advances in data sources, data standards, and open data and tools can help transit agencies generate more value from their data and external datasets. Transit agencies need to set goals that can be accomplished through open transit data and data analysis and develop staff capabilities and data management processes to work toward those goals. Promoting a culture of open data and data analysis should be a long-term commitment for transit agencies that involves:

- The funding and prioritization of new technologies, data sources, and data analysis at the leadership level.
- Training and acquiring qualified employees with the skills to analyze data at the staff level.”

(*Data Practices Guidebook* 2021, 62)

In its efforts to expand data capabilities, adopt best practices, and ultimately make data accessible to the public, we recommend that the RTA review these two sources, as they will support the agency’s open data goals. Doing so will propel the RTA toward transparency and a comprehensive understanding of its planning and operational shortcomings. Consequently, it can develop strategies for meaningful service improvements and expansions with greater precision to meet the needs of New Orleanians.

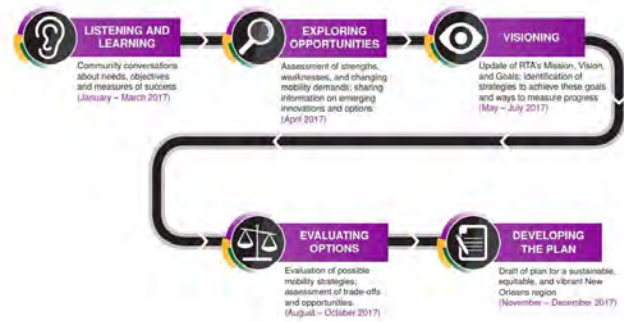


Streetcar in New Orleans, Timothy Cardner

RTA's Needs and Goals

The RTA's Fixed Route Service Standards Policy, supported by federal legislation in Title VI of the Civil Rights Act of 1964 and by the FTA, mandates reporting on "performance and evaluation," among other guidelines and standards. The established reporting schedule, found on page 14 of the 2022 update, pertains to data in the following categories: route productivity, schedule reliability, passenger loads, ridership, route efficiency, safety statistics, safety reports, and routes flagged for adjustment. According to a local industry expert, RTA staff currently report on most of these metrics, primarily through updates to the Board of Commissioners and presentation slides. *In the interest of transparency, we encourage the RTA to publicly share this same data, preferably through dashboards on its website.*

[The RTA's Strategic Mobility Plan \(SMP\)](#) is a roadmap for enhancing public transportation in the Greater New Orleans region. Initially published in 2018, the SMP goals span 20 years into the agency's future and were last updated in August 2023. For this report, we spoke with RTA staff members who were directly involved in developing the first version of the SMP. As of this report's release, a year and a half has passed since the most recent SMP update was made public. Both versions include tables detailing the metrics the agency will track to meet improvement targets. The SMP and its goals were shaped by community priorities and a deliberate gathering of public input, directly influencing its focus areas.



The RTA's SMP development timeline, RTA

To gain further insights into the RTA's current status regarding the tracking and public release of SMP data, we identified high-priority metrics outlined in the 2023 SMP Metrics & Targets Table. We isolated datasets reflecting performance, ridership, network coverage, and access. While many others were significant for the overall strength of the RTA, they did not relate to the most critical aspects of the daily rider experience. A few examples include "% of Pilot Programs Targeting Equity-Focused Populations" and "% of Prolonged (> 1 day) Service Disruptions Communicated within 24 Hours of Notification: On the Mobile App, at Affected Stops." We excluded four infrastructure-related metrics because follow-up would require contacting and discussing with local agencies outside the RTA. These items pertain to shelters, bike infrastructure, ADA accessibility at bus stops, and the integration of zero-emissions vehicles into the fleet. Lastly, it is essential to note that the "Data Category" column in the table below was defined by RIDE for this report.

As mentioned, speaking with RTA staff helped us determine whether these metrics were actively tracked. We confirmed that the related datasets and visualizations are not publicly available online. This data provides invaluable insights into various relevant data-collection methodologies and observed challenges in data quality and/or analysis execution.

Many mass transit agencies create public portals for similar key metrics to maintain their commitment to transparency. By selecting SMP data items, incorporating insights from RTA staff, aligning them with comparable case studies from other agencies, and offering our recommendations, we aim to provide a clear and dependable roadmap that will encourage RTA to adopt effective open data policies and procedures.



Cover of the RTA Strategic Mobility Plan, RTA 2023

Tracking and Publishing Status of RTA's SMP Data Metrics

Data Category	Data Metric	Target/Goal Statistic	Actively Tracked?	Currently Published by RTA?
Performance and Ridership	On-Time Performance	85%	Yes	No
Performance and Ridership	Avg. Overall Sys. Speed by Mode	15-20% Increase by 2030	Yes	No
Performance and Ridership	Service Completion (% of Trips Scheduled that are Delivered) by Mode	100%	Yes	No
Performance and Ridership	Service Completion (% of Trips Scheduled that are Delivered) for Title VI Focus Routes	100%	Yes	No
Performance and Ridership	Ridership: Total Fixed Route System Ridership	Pre-Pandemic Levels or Higher	Yes	No
Performance and Ridership	Riders Per Revenue Hour by Mode	Pre-Pandemic Levels or Higher	Yes	No
Performance and Ridership	Average Dwell Time at Stops for Each Mode	Decrease Per Year	No (Data Exists but is Unreliable)	No
Network and Access	Percentage of Jobs in Orleans and Jefferson Parishes that the Average Low-Income Household within RTA's Service Area Can Reach Within 60 Minutes by Transit During Peak Period	Increase Per Year	No	No
Network and Access	Percentage of Low-Income Households in the Service Area within 1/2 Mile of a High Frequency (15 Mins. or Less) Route	Increase Per Year	No	No
Network and Access	TOC* - % of All and New Rental Units within 1/2 Mile of High Frequency Transit	Increase Per Year	No	No
Network and Access	TOC* - # of New Local Businesses Located within 1/2 Mile of High Frequency Transit	Increase Per Year	No	No
Network and Access	Percentage of Households in the Service Area within 30 Minutes by Transit of a Major Healthcare Facility During Typical Office Hours	Increase Per Year	No	No
Network and Access	Percentage of Households in the Service Area within 30 Minutes by Transit of a Community Health Center During Typical Office Hours	Increase Per Year	No	No
Network and Access	Percentage of Households in the Service Area within 30 Minutes by Transit of a Major Park or Recreational Facility During Typical Hours	Increase Per Year	No	No
Network and Access	Percentage of Jobs in Orleans and Jefferson Parishes that the Average Household within RTA's Service Area Can Reach within 60 Minutes by Transit During All Periods	Increase Per Year	No	No
Network and Access	Percentage of the Service Area Population within 1/2 Mile of a High Frequency (15 Minutes or Less) Route	Increase Per Year	No	No

FIGURE 1

TOC = Transit Oriented Communities Program

Service Performance Data

Figure 1 highlights the SMP data metrics we have prioritized, including their categories, targets for improvement, and current statuses regarding active tracking and open publishing by the RTA. These metrics will guide the following discussions and case study examples.

Strategic Mobility Plan Metrics

Service Completion (Delivery)

When transit services fail to operate as scheduled, ridership suffers. This is a significant demonstration of unreliability. Therefore, agencies must monitor their service completion (or delivery) rates and commit to bringing them close to 100%. The RTA tracks this metric; however, as reported by staff, several issues are causing the number of completed scheduled one-way trips to appear lower than they are. For example, some runs will go unaccounted for if an operator is incorrectly signed into a trip. Real-time tracking works as long as the driver associates the vehicle with its route, but Clever Reports will miss the data if it is not linked to a run.

Additionally, buses stuck in “layover mode,” vehicle breakdowns, and data files failing to upload or becoming corrupted lead to the same outcome. To compensate for this discrepancy, lost time is calculated through manual entries, and incident management data is factored in. The current process for achieving service completion data is chaotic, necessitating tedious manual corrections, and needs to be restructured. Nonetheless, the RTA can derive reasonably accurate service delivery numbers from this method, which is suitable for public sharing. We urge the RTA to release today's service completion stats while revamping methodologies related to this data to establish a more consistent process and better represent service completion metrics.

According to staff, the RTA's service completion (delivery) is evaluated based on the duration of completed trips compared to the total scheduled time within a specific period. For instance, if the total operating hours for fixed routes (bus, ferry, and streetcar) are 1,834 on a given day, while 1,913 were scheduled, 1,834/1,913 would be generated. This can then be converted into a percentage. Additionally, delays or lost service caused by late pull-outs or mechanical issues can be separated from the total for a more detailed analysis. However, the SMP metric for service

completion defines it as the percentage of one-way trips completed out of the total scheduled. For example, if 2,289 out of 2,421 scheduled fixed-route trips qualified for completion in a day, the completion rate would be 94.5%. This difference in methodology may underscore the need for consistency in data presentation. It may be beneficial to consider and present service completion data in both ways, as the time-based approach may provide more detail regarding the causes of disruptions. At the same time, the straightforward percentage effectively illustrates the completion rate for trips planned.

On-Time Performance (OTP)

The RTA monitors on-time performance (OTP) for its entire range of fixed-route services, as mandated by the Federal Transit Administration's National Transit Database. We recommend that the agency report and prioritize this data so it can be presented in various practical ways.



Riders wait for the bus at an RTA stop, RIDE

Ridership

Ridership is one of the most prevalent topics in open transit data, and agencies must report it in the National Transit Database (NTD). Ridership can tell many stories - how heavily services are utilized (hinting at quality), who is being served (incorporating all possible demographics), and system efficiency (in terms of cost). Trends change over time, aligned with shifts in the system and broader social impacts (such as the Coronavirus pandemic or employment rates). Monitoring ridership data is extremely important when striving for equitable transit, making decisions about service

allocation, and ensuring adequate agency financial standing. Correspondingly, ridership characteristics can indicate current agency priorities.

At the RTA, ridership statistics are collected differently for fixed transit modes. Automatic passenger counters (APCs) provide some of the best onboarding and alighting data since they count all riders, and the associated back-end software can use algorithms to address any margins of error, effectively cleaning the data. APCs serve as the methodology used to track bus ridership. RTA staff explains that this information is fed into Clever Devices software and transferred daily to RideCheck reports, generating ridership data by stop. RideCheck alerts staff to data errors, such as discrepancies of 15% or more between boardings and alightings and negative passenger loads. For bus APCs to be validated post-installation, their data must closely match manual counts and show rider totals within 10% of the previous farebox methodology.

Ferry service ridership is collected through manual counts conducted by onboard staff, which should be considered consistently reliable. However, streetcar boardings are less comprehensively captured because the data comes from the farebox. Since counts depend on payment, some riders can be missed, resulting in slightly lower-than-actual ridership numbers. Alightings are not recorded on streetcars, making it impossible to calculate how many riders are on a vehicle at any given moment during its run.

Farebox ridership numbers are accurate enough to be valuable open data, as they represent actual trends, and should be made public. The primary systemic issue is consistency between bus and streetcar data. With significant structural differences in measurement methodology, ridership between transit modes cannot be accurately compared side-by-side. Streetcars, except those on the St. Charles Line, are fitted with unvalidated APCs.

These unvalidated APCs create issues in their data feeds that limit their use for internal purposes and only provide stop-level information. We recommend that the RTA make all ridership data openly available and improve its streetcar methodology, including installing APCs on the St. Charles Line (#12). In the near term, APC validation should be undertaken for the Rampart-Loyola (#46), Canal (#47, #48), and Riverfront-UPT (#49) Lines.

System Speed

The SMP metric “Average Overall System Speed by Mode” highlights the speed, measured in miles per hour, at which RTA vehicles (buses, streetcars, and ferries) operate during their runs. In other words, this metric indicates the efficiency of transit—efficient transit benefits riders by allowing them to reach their destinations more quickly. Consequently, more people consider using the system, regardless of their access to a car, as travel times become comparable to, or even better than, those of a personal vehicle.

Calculating average overall speed can be straightforward, using statistics that the RTA likely already has. First, establish a specific timeframe, such as months. Next, collect data on total hours of operation and total mileage within that timeframe. Finally, mileage is divided by hours to produce a quotient reflecting the result of the metric’s analysis. We recommend that the RTA conduct this calculation to determine and publish average speed data.



RTA operator and supervisor inspect bus, RIDE

Note that total operating hours include dwell times, which are the periods that buses and streetcars remain stationary at stops while completing their routes. Therefore, these times should be excluded from the calculations to determine their average moving speeds. Understanding this is important because it reveals how quickly they can travel, considering traffic congestion and other roadway obstacles. With this insight, local authorities may want to explore innovations that improve moving speeds, such as adding more short express bus lanes or expanding bus rapid transit infrastructure.

However, including dwell times in the assessment is also valuable, as it clarifies how riders experience total travel times from when they first board until they exit the bus or

streetcar. Understanding transit speed in this way enables comparisons with the duration of trips using other transportation methods, promoting efforts to enhance efficiency. A comprehensive overview of how transit operates between points A and B is just as essential as isolating smaller components of system functionality, such as dwell time and moving speed.

Dwell Time

The SMP metric “Average Dwell Time at Stops for Each Mode” indicates the average duration RTA vehicles (buses and streetcars, as ferries do not stop between route start and end points) spend idling at stops. Dwell time, along with speed, is a key metric that affects total travel durations. Under normal conditions, riders should be able to board and exit vehicles quickly to maintain efficiency. If average dwell times are excessively long, it likely suggests that the boarding processes require streamlining. Streetcar riders often encounter long dwell times when demand increases, caused by many passengers queueing at one location. Since riders typically board and pay their fares one by one before the streetcar departs, dwell times can extend, frustratingly slowing the pace for all riders.

RTA staff report difficulties in harvesting reliable dwell time data, even though the Clever Reports system records it. Each time the vehicle doors open, the software is designed to create an "event," concluding it when the doors shut and reporting the duration in between as dwell time. However, data indicates dwell time when no stop occurred. RTA staff suspect that AVL's (automatic vehicle location) proximity to a stop may cause the system to log dwell time when the vehicle is merely passing by. *We recommend the RTA establish and implement a consistent process for capturing accurate dwell time data.*

Performance Case Study #1

Winnipeg

In Winnipeg, Manitoba, Canada, Winnipeg Transit provides public transportation. Winnipeg Transit offers [open data](#) for pass-ups, on-time performance (OTP), and passenger counts. Focusing on the [OTP category](#), the agency has organized data to convey various types of information, taking a unique approach to enhance the metrics on the topic.



Winnipeg Transit buses pull into a station, Winnipeg Transit

First, there is a detailed explanation of how the agency defines a vehicle as late, on-time, or early, how its onboard technology records OTP, and external factors, such as weather and traffic congestion, that interrupt ideal on-time outcomes.

Next, two sets of charts and tables are presented. One set breaks down the percentages of each bus route's late, on-time, and early stops. However, the chart is too wide to be viewed on this webpage. By clicking on “View Source Data” in the top-right corner, the complete graph opens in a new tab, along with over 200,000 rows of raw data encompassing each route over the past year. Users can switch from chart to table view in the bottom left corner of the initial OTP page or the new expanded tab. This action reveals a detailed breakdown of late, on-time, and early stop yearly totals and percentages. The second chart/table pair represents OTP by day over the past year. All agency service statistics are aggregated daily, showing system-wide improvements, stagnation, or declines in OTP over time.

On-Time Performance By Route – Past Year

This chart shows the percentage of times a bus was recorded as being early (greater than 1 minute early), on time, or late (greater than 3 minutes late) for each transit route for the past year:

Route Nu...	Late Stop...	Late Stop...	On-Time S...	On-Time S...	Early Stop...	Early Stop...
23	87,709	10%	214,547	58%	88,959	24%
24	223,441	20%	686,991	62%	192,805	17%
25	21,130	19%	63,680	58%	25,004	23%
26	174,706	40%	217,999	48%	46,444	11%
28	61,677	33%	105,249	50%	52,308	12%
29	131,629	30%	254,188	58%	59,790	12%
30	10,701	22%	28,103	58%	9,430	20%
31	46,241	20%	106,622	55%	41,328	21%
32	57,832	20%	143,337	58%	47,805	19%
33	147,695	16%	513,385	51%	178,390	21%
34	28,064	20%	56,313	55%	23,140	22%
35	23,473	22%	60,578	56%	24,446	23%
36	90,418	22%	222,736	55%	69,579	22%

On-Time Performance by Route, Winnipeg Transit¹

¹ City of Winnipeg. (2025, January). *On-Time Performance*. Winnipeg Transit. <https://info.winnipegtransit.com/en/open-data/on-time-performance/>

On-Time Performance By Day – Past Year

This chart shows the percentage of times buses were recorded as being early (greater than 1 minute early), on time, or late (greater than 3 minutes late) for each day of the past year.



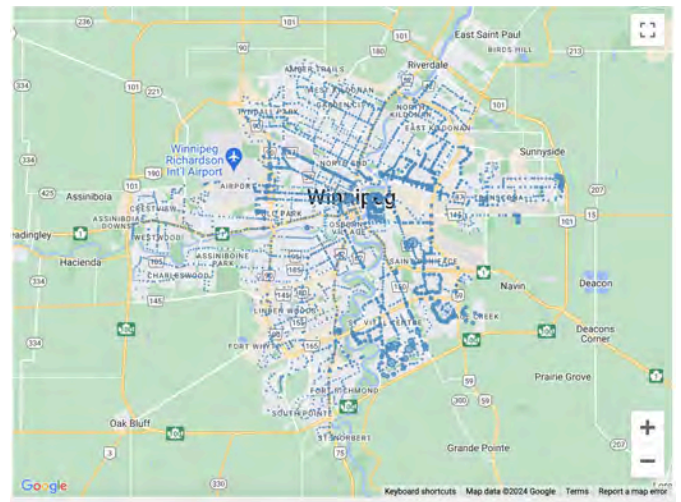
On-Time Performance by Day, Winnipeg Transit²

Two maps, in particular, make Winnipeg’s OTP data offerings incredibly unique—one for late service and another for early service. Each map includes all system bus stops, with the dots representing them appearing larger as early or late departures occur more frequently. Geospatial representations of OTP in transit agency open data are rare in this comparative research. By providing these maps, Winnipeg Transit has created a valuable tool, particularly for late OTP, to help investigate barriers in certain parts of the service area. Locals can quickly see if their stops receive higher levels of late service, allowing them to advocate for change, plan their trips accordingly, and set realistic expectations.

The [pass-up category data](#) is organized similarly to OTP and features maps of all pass-up instances from the past year.



Winnipeg Rapid Transit bus pulls into station, Winnipeg Transit



On-Time Performance (Late) at Each Bus Stop, Winnipeg Transit³

Performance Case Study #2 Maryland

In and around Baltimore, the Maryland Transit Administration (MTA) provides fixed-route mass transit through buses, light rail, subway, and commuter rail. The agency openly shares ridership and performance data. Additional metrics are available in the MTA Customer Experience Dashboard, with separate sections for each transit mode.



Maryland Transit Administration light rail, MTA

All information covering local buses, light rail, metro subway, MARC (Maryland Area Rail Commuter), commuter buses, and mobility rides includes service completion data. The MTA refers to this metric as “service delivery,” measuring it by the percentage of operated scheduled hours. At the same time, the RTA’s SMP items indicate the percentage of trips completed. Whether measured in trips or hours, interested parties will gain a clear understanding of how frequently

² City of Winnipeg. (2025, January). *On-Time Performance*. Winnipeg Transit. <https://info.winnipegtransit.com/en/open-data/on-time-performance/>

³ City of Winnipeg. (2025, January). *On-Time Performance*. Winnipeg Transit. <https://info.winnipegtransit.com/en/open-data/on-time-performance/>

expected transit vehicles do not arrive. For instance, examining the MTA service delivery graphs, like the one below for light rail, enables one to quickly ascertain completion rates over time and view an aggregated statistic for the most recent 12-month period.



Percentage of Scheduled Hours Operated, MTA⁴

Performance Case Study #3 Las Vegas

The RTC, or Regional Transportation Commission of Southern Nevada, is responsible for transporting Las Vegas throughout Clark County. The New Orleans and Las Vegas areas have similar populations; both regions experience dangerous heat, and both economies rely heavily on tourism.



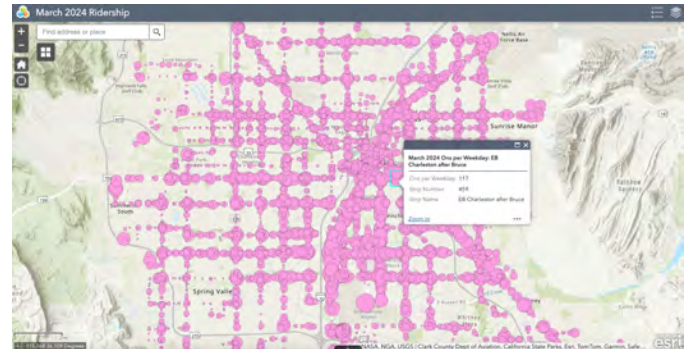
RTC bus in Las Vegas, RTC

The RTC publicly shares its [ridership data](#) as a geospatial weekly average onboardings inventory for each stop within its system. While the ridership data lacks details about the demographics of those using the system, the agency effectively illustrates rider distribution on the map. This information can reveal who uses the buses, such as travelers and airport workers, or individuals connected to Nellis Air Force Base.

It also explains why many stops only serve a handful of riders. This data can help determine if improved service

⁴ MTA. (2025, January). *MTA Customer Experience Dashboard*. Maryland Department of Transportation | Maryland Transit Administration. <https://www.mta.maryland.gov/customer-experience-dashboard>

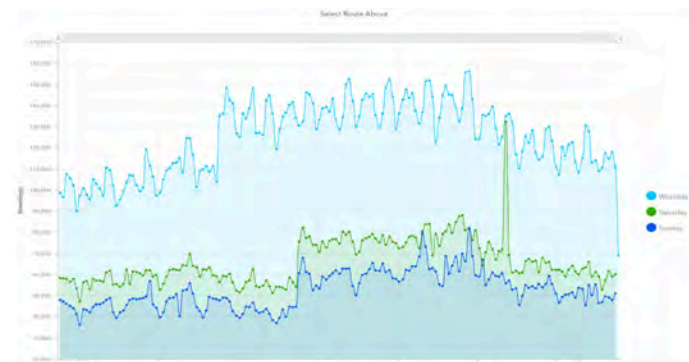
could increase bus ridership in the quieter parts of the system. Similarly, are the busy areas receiving service that meets their needs? Furthermore, how can routes and frequencies be enhanced to reliably transport more significant numbers of passengers?



RTC March 2024 Ridership Map, showing weekday onboardings data for Stop #459⁵, RTC

Performance Case Study #4 San Jose

Public transportation in the South San Francisco Bay Area is run by the Santa Clara Valley Transportation Authority (VTA). VTA serves municipalities across the densely populated Santa Clara County and is centered around the central hub of the sub-region, San Jose. Like the Las Vegas RTC example, the VTA has created a [map](#) detailing ridership at each stop in its system. However, this version includes additional features and data. The VTA's map is arguably more helpful but likely requires more effort to create than the RTC's version. Users can select weekday, Saturday, or Sunday statistics with the VTA's map.



VTA Historic Boardings by Month, VTA⁶

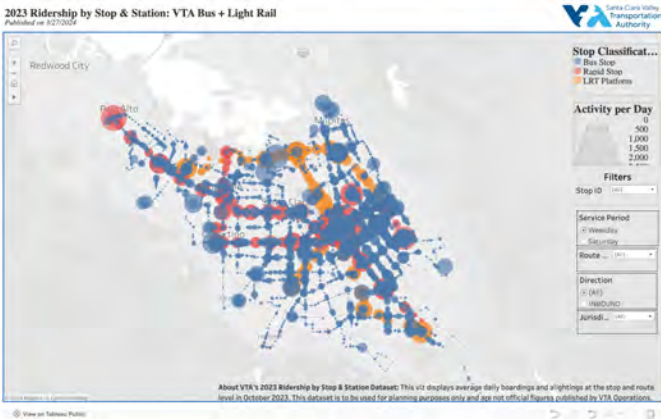
⁵ Esri. (2024, March). March 2024 Ridership. <https://rtcsonv.maps.arcgis.com/apps/webappviewer/index.html?id=29b17a8a2c2a4d2c951b89c13e9d637c>

⁶ <https://data.vta.org/pages/historical-ridership>



Valley Transportation Authority light rail, VTA

Additionally, three different types of stops are available: LRT (light rail) platforms, rapid bus stops, and regular bus stops— all color-coded. Each stop's “point” is sized according to passenger traffic, and when clicking on one, a table appears that differentiates the numbers for each line serving that stop. Impressively, alighting data is included in addition to boardings. Rather than only being able to view the entire system, users can isolate each line or any combination of them. Furthermore, there are options to view inbound and outbound runs separately or together. Finally, individual jurisdictions within the VTA service area, or combinations, can easily be isolated to illustrate the ridership story within smaller community divisions.



Entire 2023 VTA bus and light rail ridership by stop map⁷



2023 VTA bus and light rail ridership by stop map, with Stop #63982 selected to show its data⁸

Performance Case Study #5 Portland

The Tri-County Metropolitan Transportation District of Oregon (TriMet) operates bus, light rail, and commuter rail services for the Portland Metropolitan Area, covering Multnomah, Washington, and Clackamas Counties. As of Fall 2024, TriMet's [Ridership and Performance Statistics](#) page links documents such as the Passenger Census and Route Ridership. Passenger Census data can be extracted by jurisdiction, route, stop, and more.



TriMet bus and light rail, TriMet

Route Ridership Reports offer comprehensive detail, reflecting statistics such as rides, vehicle hours, cost per ride, and average trip length. This exemplifies how the RTA can provide data for its “Riders Per Revenue Hour by Mode” metric. TriMet's [Performance Dashboard](#) includes a section for ridership, featuring line graphs that display average weekly boardings over time for each transit mode.

⁷ Santa Clara Valley Transportation Authority. (2024, March 27). VTA's 2023 Ridership by Stop & Station . VTA Open Data . <https://data.vta.org/pages/ridership-by-stop>

⁸ Santa Clara Valley Transportation Authority. (2024, March 27). VTA's 2023 Ridership by Stop & Station . VTA Open Data . <https://data.vta.org/pages/ridership-by-stop>

Route Ridership Report		Weekly		Spring 2023							
Route	Spring 2023						Spring 2022				
	Boarding Rides	Rides Revenue Hour	Rides Vehicle Hour	Cost Per Ride	Passenger Miles	Passenger Miles Per Revenue Mile	Avg. Trip Length	Boarding Rides	Rides Per Hour	Rides Change	Rides Per Hour Change
88-Harry/198th	6,200	23.4	15.9	\$8.39	22,681	5.0	3.7	5,260	13.5	940	2.4
94-Pacific Hwy/Sherwood	7,190	17.2	11.2	\$11.90	37,103	5.4	5.2	6,080	9.4	1,110	1.8
96-Tualatin-5	2,100	13.4	8.3	\$16.08	17,308	5.2	8.2	1,500	6.1	500	2.2
97-Tualatin-Sherwood Rd	150	6.8	3.4	\$39.23	318	0.9	2.1	150	3.4	0	0.0
99-Macadam/McLaughlin	1,700	16.8	11.2	\$11.86	8,270	5.4	4.9	1,350	8.8	350	2.4
152-Milwaukie	600	8.8	6.8	\$19.67	1,467	1.7	2.4	550	6.2	50	0.6
154-Willamette/Clackamas Heights	400	8.0	5.4	\$24.90	1,360	1.4	3.4	300	4.0	100	1.3
155-Sunnyside	2,990	19.7	13.3	\$10.03	8,792	3.6	2.9	2,630	11.7	360	1.6
156-Mather Rd	650	12.3	9.3	\$14.37	2,747	2.9	4.2	650	9.4	0	-0.1
291-Orange Night Bus	60	9.0	6.8	\$19.47	249	2.4	4.1	70	7.7	-10	-0.9
MAX Shuttle					226,326	13.5					

A small selection of data from TriMet Spring 2023 Weekly Route Ridership Report⁹

TriMet Passenger Census - Spring 2023
All Day Ons and Offs by Route and Stop
Saturday

Route: MAX Orange Line - To Portland City Center

Stop Location	Location ID	Direction	Position	Ons	Offs	Total	Monthly Lifts
SE Park Ave MAX Station	13720	N	AT	899	0	899	0
Milwaukie/Main St MAX Station	13721	N	AT	181	24	205	0
SE Tacoma/Johnson Creek MAX Station	13722	N	AT	170	40	210	0
SE Bybee Blvd MAX Station	13723	N	AT	117	26	143	0
SE 17th Ave & Holgate Blvd MAX Station	13724	N	AT	135	50	185	0
SE 17th Ave & Rhine St MAX Station	13725	N	AT	78	27	105	0
Clinton St/SE 12th Ave MAX Station	13726	W	AT	78	71	149	0
OMS/SE Water MAX Station	13727	W	AT	126	108	234	0
South Waterfront/S Moody MAX Station	13728	W	AT	140	78	218	0
Lincoln St/SW 3rd Ave MAX Station	13729	W	AT	88	51	139	0
PSU South/SW 6th & College MAX Stn	10293	N	NS	0	107	107	0

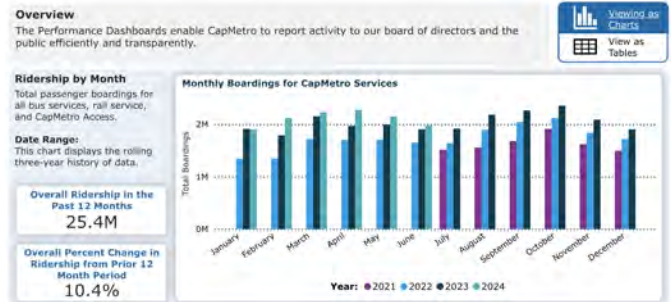
A small selection of data from TriMet Spring 2023 Saturday Passenger Census¹⁰

performance dashboard includes data across various categories, such as ridership statistics for the entire system (Overview tab), each transit mode (Ridership tab), and all individual routes (Route Performance tab).



Riders boarding CapMetro's Pickup service, CapMetro

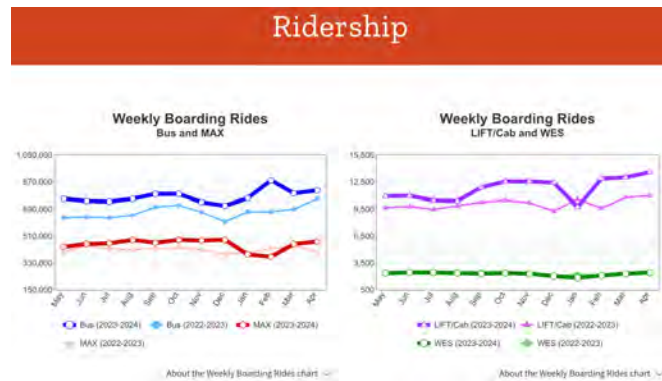
CapMetro allows users to view information in chart or table formats for most data sets. The charts facilitate intuitive visual data comparisons across different periods, while tables display raw statistics side-by-side. The ridership section effectively illustrates increases or decreases in system usage, providing data on the monthly percentage change in boardings compared to the previous year. Overall, CapMetro has created one of the highest-quality open data dashboards for ridership (and other) metrics, giving the public greater control over how they view the data in scale and presentation.



CapMetro Systemwide Monthly Boardings, presented as a chart¹²

Month	2021	2022	2023	2024
January	1,345,405	1,914,024	1,901,934	1,901,934
February	1,349,160	1,790,179	2,121,684	2,121,684
March	1,714,896	2,155,293	2,238,806	2,238,806
April	1,702,839	1,972,663	2,281,352	2,281,352
May	1,704,682	1,897,063	2,152,145	2,152,145
June	1,650,431	1,907,120	1,982,095	1,982,095
July	1,513,251	1,643,566	1,920,180	1,920,180
August	1,559,221	1,895,851	2,185,785	2,185,785
September	1,682,597	2,048,963	2,268,483	2,268,483
October	1,915,748	2,121,136	2,357,826	2,357,826
November	1,621,835	1,838,551	2,091,333	2,091,333
December	1,496,968	1,721,813	1,905,993	1,905,993
Total Boardings:	9,789,560	20,736,193	24,465,942	24,465,942

CapMetro Systemwide Monthly Boardings, presented as a table¹³



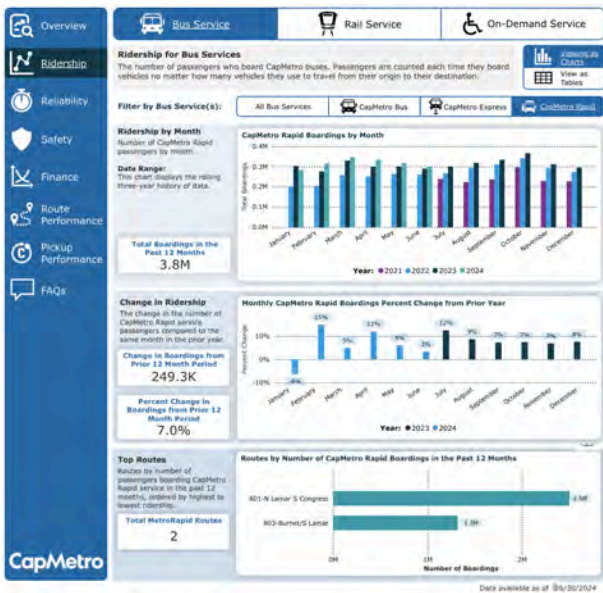
TriMet Weekly Boarding line graphs¹¹

Performance Case Study #6 Austin

The Capital Metropolitan Transportation Authority (CapMetro) provides bus, BRT, and rail connections in the Austin Metropolitan Area. CapMetro's primary

⁹ TriMet. (2025). Performance Dashboard. TriMet. <https://trimet.org/about/dashboard/index.htm>
¹⁰ TriMet. (2025). Performance Dashboard. TriMet. <https://trimet.org/about/dashboard/index.htm>
¹¹ TriMet. (2025). Performance Dashboard. TriMet. <https://trimet.org/about/dashboard/index.htm>

¹² Capital Metropolitan Transportation Authority. (2024, December 31). CapMetro. <https://www.capmetro.org/about/performance-dashboard>
¹³ Capital Metropolitan Transportation Authority. (2024, December 31). CapMetro. <https://www.capmetro.org/about/performance-dashboard>



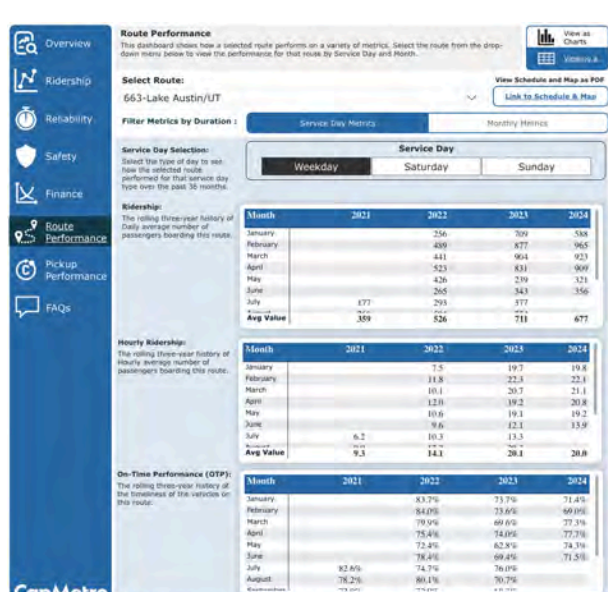
CapMetro BRT Service Monthly Boardings, presented as charts¹⁴



CapMetro Weekday Ridership for the #663 bus, presented as charts¹⁶



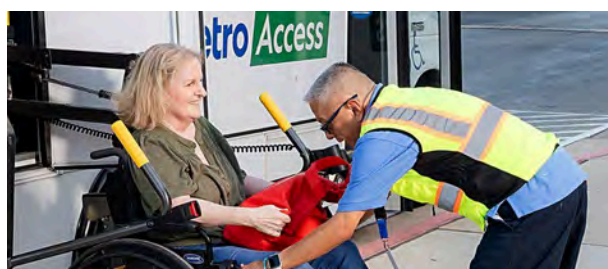
CapMetro BRT Service Monthly Boardings, presented as tables¹⁵



CapMetro Weekday Ridership on the #663 bus, tables¹⁷



CapMetro Bikeshare hub, CapMetro



CapMetro Access vehicle, CapMetro

¹⁴ Capital Metropolitan Transportation Authority. (2024, December 31). CapMetro. <https://www.capmetro.org/about/performance-dashboard>

¹⁵ Capital Metropolitan Transportation Authority. (2024, December 31). CapMetro. <https://www.capmetro.org/about/performance-dashboard>

¹⁶ Capital Metropolitan Transportation Authority. (2024, December 31). CapMetro. <https://www.capmetro.org/about/performance-dashboard>

¹⁷ Capital Metropolitan Transportation Authority. (2024, December 31). CapMetro. <https://www.capmetro.org/about/performance-dashboard>

Performance Case Study #7

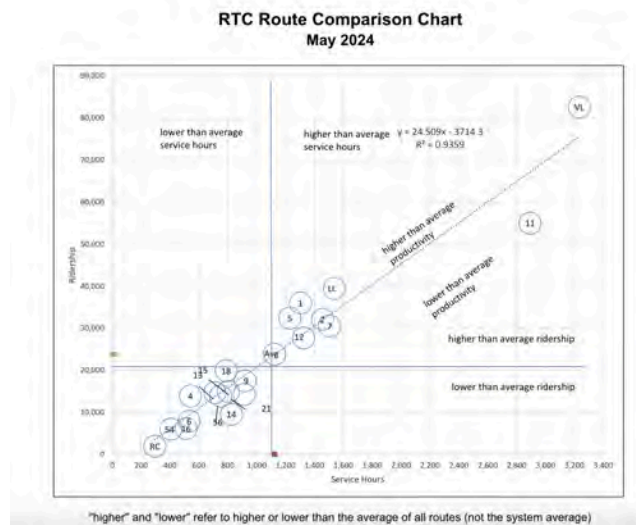
Reno

The Regional Transportation Commission of Washoe County (RTC) serves Reno area communities in Nevada. The [Transit Optimization Plan Strategies \(TOPS\) Report](#) is one aspect of its open data. The RTC's TOPS Report presents data in a clear, written format. The agency compares service hours and ridership across all routes to evaluate productivity.



RTC Reno bus on the street, RTC Reno

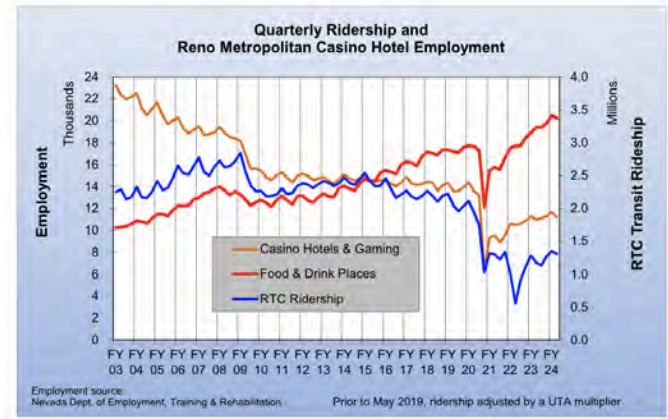
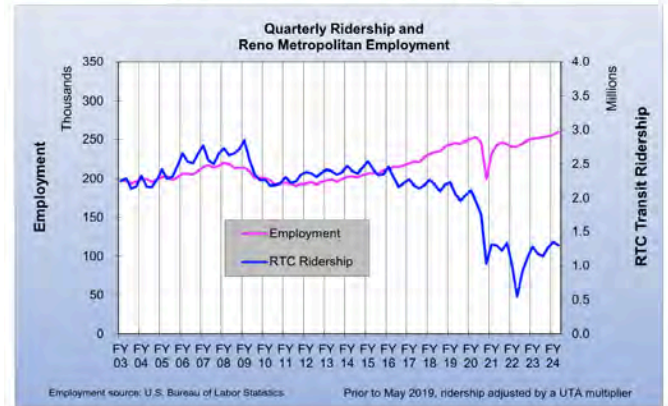
This format also helps us understand the underlying causes behind changes in service and utilization. For instance, weather conditions and unemployment rates were identified as external factors impacting ridership. On page 8 of the report, a plot graph compares the ridership and service hours of each RTC route against the averages for these two aspects.



RTC Route Comparison 04/24 TOPS Report, RTC Reno¹⁸

¹⁸ RTC Washoe. (n.d.). *Resources and Reports*. Regional Transportation Commission of Washoe County, Nevada. <https://rtcwashoe.com/public-transportation/resources-and-reports/>

RTC Transit Fixed-Route Bus



RTC Reno Quarterly Ridership and Reno Metropolitan Employment line graph from April 2024 TOPS Report¹⁹

Takeaways

Winnipeg/On-Time Performance

OTP is a crucial part of performance, and Winnipeg Transit employs various charts, tables, and maps to ensure complete OTP transparency throughout its bus system. On the backend, effectively tracking OTP requires reliable on-board technology and consistent data maintenance. *The RTA should examine Winnipeg Transit's open data practices to develop and enhance its OTP data category.*

Maryland/Service Delivery

The MTA's clear presentation of service completion statistics through its Customer Experience Dashboard is a valuable example for the RTA to consider when designing its open data dashboards, especially regarding Total Service Completion and Title VI data.

¹⁹ RTC Washoe. (n.d.). *Resources and Reports*. Regional Transportation Commission of Washoe County, Nevada. <https://rtcwashoe.com/public-transportation/resources-and-reports/>

The primary challenge is to develop more reliable data-gathering practices. *The RTA might benefit from collaborating with an agency like the MTA to learn best practices for obtaining accurate and consistent snapshots of service completion throughout the system without needing extensive data cleaning.*

Ridership

In concert, RTC (Las Vegas), VTA, TriMet, CapMetro, and RTC (Reno) have provided ridership data utilizing various impactful presentation methods with multiple levels of detail. Maps, especially those from RTC (Las Vegas) and VTA, intuitively illustrate ridership distributions and effectively convey the spatial characteristics of system strengths and weaknesses. These visualizations highlight areas where improvement inquiries should be investigated. Tables displaying raw numbers are particularly effective for understanding total ridership, as shown by TriMet and CapMetro.

These two transit agencies further assist data-seekers by presenting the same information in chart and line graph formats, with the latter extending down to individual route levels. RTC (Reno) uniquely evaluates route productivity by graphically plotting service hours against ridership while providing valuable context for ridership trends over time in relation to employment trends. *We recommend that the RTA consider integrating these diverse presentation methods into its open ridership data.*

Network and Access Data

Adequate access to various employment opportunities increases the likelihood that New Orleanians can support themselves and their families, compete for higher-paying positions, and pursue genuine professional interests and goals. A mass transit system should continually strive to connect the public to diverse jobs within a reasonable travel time. This can be examined through geospatial data analysis, utilizing datasets for workplace locations, transit routes and their frequencies. This will enable software to model the percentage of jobs accessible from each spatial division, such as census block groups.

Access to Transit

Living near transit routes enhances personal agency by providing access to educational opportunities, social and recreational activities, healthcare, and employment

without the costs tied to car ownership and operation. However, if public transit services operate with insufficient frequency and reliability, their usefulness for riders will significantly diminish. In four SMP metrics regarding this topic, the RTA defines access as within a half-mile of the nearest stop and high frequency as a service running every 15 minutes or less. These metrics apply to the entire service area, low-income households, new rental units, and new local businesses. All metrics are indicated to be measured in percentages.

Access to Jobs

According to RTA staff, job data is sourced from Census LODES data. In the two SMP metrics on this topic, the RTA has established a maximum travel duration of 60 minutes for both the daily peak period in the first metric and all times of day in the second. The metric specifying peak periods isolates low-income households, while the metric for all times of day pertains to “average households.” The RTA can conduct these analyses using a tool called Conveyal, which is from a company of the same name.

Access Case Study #1

Pittsburgh

One noteworthy way to illustrate access to high-frequency transit is through walkshed maps, which highlight buffer zones at a distance around stops and create a visual representation of areas reachable on foot from a specific starting point. Pittsburgh Regional Transit (PRT) has included this type of map in its Open Data Portal, one of the most comprehensive among U.S. transit agencies.



PRT Frequent Service Walkshed Map²⁰

²⁰ Esri. (2024, May 15). *Frequent Service Walkshed 2306*. PRT Open Data. https://open-data-pgh-transit.hub.arcgis.com/datasets/9998eb8cbcad4066984b5e59c84b916a_0/explore?location=40.427309%2C-80.006634%2C11.50

Creating accurate walkshed maps requires considerable effort, as all real-world boundaries must be accounted for, necessitating thorough review and correction. GIS analysis tools may encounter errors due to their inability to recognize the intricacies of actual infrastructure layouts.



A PRT bus on its route, PRT

For instance, GIS analysis might misinterpret a bridge that crosses over a street as intersecting it, omit pedestrian paths or bridge crossings because of insufficient attributed data, or mistakenly include non-pedestrian-friendly thoroughfares, such as highways, in the walkshed. Therefore, PRT has tackled the most challenging part of the analysis process by creating and publishing its walkshed map. Adding demographics like low-income household data would be a relatively simple and beneficial adjustment.

Access Case Study #2 Ride New Orleans

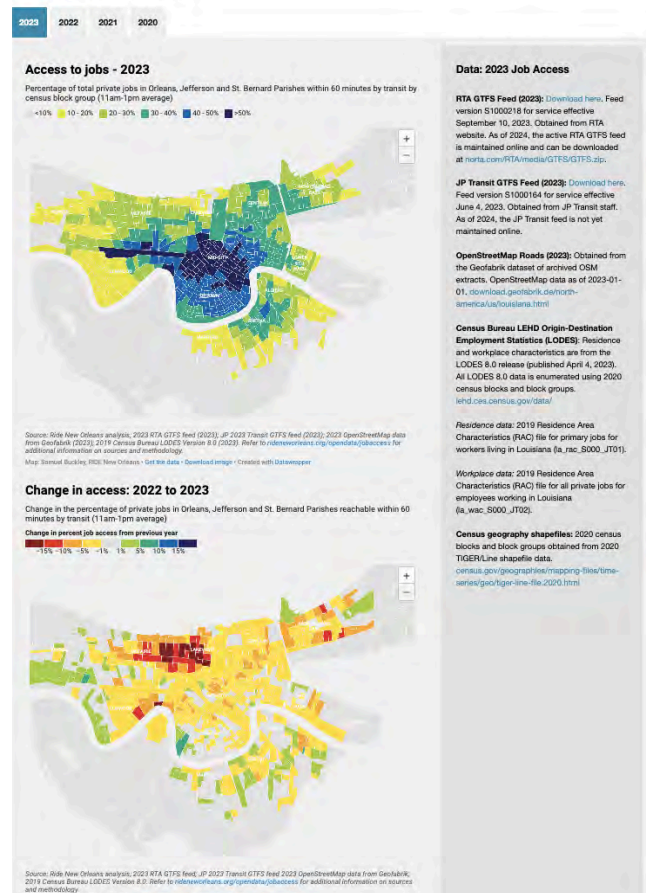
Ride New Orleans (RIDE) is a transit rider advocacy organization serving riders in the Greater New Orleans region. In 2024, a transit rider in Orleans Parish could access roughly a third of the jobs in Orleans, Jefferson, and St. Bernard Parish in under an hour on a typical weekday, while nearly all of the region's jobs were accessible by driving.

To address the lack of access to job opportunities via transit, RIDE has published maps showing the percentage of private sector jobs accessible from each local census block group on its open data portal. This data is available for weekdays from 7 am to 9 am and 11 am to 1 pm averages.



The RIDE team leads a transit access tour, RIDE

The methodology used for this study reflects the cumulative opportunity metric in the “Access Across America” report produced by the University of Minnesota’s Accessibility Observatory. Data is obtained from the U.S. Census Bureau’s Longitudinal-Employer Household Dynamics (2019). The calculations are based on the travel times observed between every US Census Block Group (CBG) in Jefferson Parish, Orleans Parish, and St. Bernard Parish.



RIDE maps exhibiting yearly job access and year-to-year changes in access within 60 minutes by transit²¹

²¹ Buckley, S. (2024). Access to Jobs. RIDE. <https://rideneworleans.org/opendata/jobaccess/>

Transit job access - Orleans Parish (weekday 7am - 9am average)

Jobs within 60 minutes by transit for Orleans Parish workers



Source: RIDE New Orleans, 2023 • Created with Datawrapper

RIDE New Orleans raw numbers for jobs accessible within 60 minutes by transit, 7 am - 9 am average²²

Transit job access - Orleans Parish (weekday 11am - 1pm average)

Jobs within 60 minutes by transit for Orleans Parish workers



Source: RIDE New Orleans, 2023 • Created with Datawrapper

RIDE New Orleans maps exhibiting yearly jobs access and year-to-year changes in access within 60 minutes by transit, for 11 am - 1 pm averages²³

Access to Healthcare and Amenities

Three high-priority Network and Access metrics still need to be addressed. They assess the percentage of households within 30 minutes by transit to primary healthcare facilities, community health centers, and significant parks and recreation sites. Access to healthcare is essential for fostering positive health outcomes for New Orleanians. Reaching parks and recreational facilities enhances health, well-being, and enjoyable experiences for locals of all ages. The RTA should implement service improvements to broaden access to these amenities.



Canoeing at Joe W. Brown Rec Center, New Orleans Recreation Department (NORD), City of New Orleans

RTA staff state that comprehensive lists of significant healthcare facilities are available, but an exact definition for “community health centers” needs to be established. This step will facilitate the cataloging of these locations. Significant parks are relatively straightforward, but there may be uncertainty regarding what qualifies as “recreational facilities.” RTA staff report that the agency cannot reassess access to destination metrics and suffers from inadequate methodologies. *We urge the RTA to identify well-defined data sources and analysis processes. Additionally, the agency must invest in enhanced staffing resources to gather and publish reliable data for these metrics.*

Takeaways

Pittsburgh/Access to Frequent Service

PRT has developed a helpful walkshed map that guides residents and businesses to areas near frequent transit services. More importantly, it highlights the significant gaps that need to be addressed to achieve this level of

²² Buckley, S. (2024). Access to Jobs. RIDE. <https://rideneworleans.org/opendata/jobaccess/>

²³ Buckley, S. (2024). Access to Jobs. RIDE. <https://rideneworleans.org/opendata/jobaccess/>

interconnectedness. Certain areas, like downtown and some eastern parts of the city, are well-served, but many others are not. A comparable RTA map identifies focus areas for improving headways and promoting more targeted progress toward the goals for related SMP metrics. Decision-making outcomes will be guided with greater accuracy. *We recommend that the RTA compile and publish similar maps, including those indicating low-income households, new rental units, and new local businesses.*

Case studies have provided valuable and relevant examples of how the RTA can disclose data concerning the selection of its SMP metrics, which RIDE has identified as a high priority. In discussions with agency staff, RIDE gathered pertinent information about other high-priority metrics not previously mentioned. The following sections propose solutions by highlighting challenges hindering quality data collection and publication.

Ride New Orleans/Access to Jobs

RIDE New Orleans has established a strong foundation for open data around job access. This data encompasses job access via RTA transit service within 60 travel minutes.

The screenshot displays the RIDE Open Data Portal with four data categories:

- ACCESS TO JOBS**: View 2023 access to jobs. Description: View maps and download data on RIDE's annual metrics for job accessibility by public transit, measured by census tracts (CTAs) and points of interest (POIs) for 2023. Includes links to methodology and details for producing these metrics.
- GTFS FEEDS**: Download current GTFS feeds. Description: RIDE maintains an archive of historical GTFS feeds for RTA and all transit services. We use these feeds to develop our access to jobs and service frequency metrics, analyze RTA scheduling changes, and conduct comparative analysis of changes to current New Orleans transit services over time.
- RIDERSHIP BY THE NUMBERS**: View bus boardings by month. Description: RIDE has historical monthly data for RTA ridership by bus and transfer and from January 2019 through December 2022. View and explore monthly and historical statistics for transit ridership by month, route, and stop.
- STOP FACILITIES**: View and download RIDE's community-developed dataset of transit addresses in RTA bus and streetcar stops.

RIDE's Open Data Portal, RIDE

With the agency's ability to conduct job access analyses through Conveyal, we recommend that the RTA publish the data for all periods, including data specific to low-income households.



Recommendations to Move Transit Forward

Based on the information in this report, we urge the RTA to take action and implement the recommendations as part of a broader plan to develop effective transit solutions for New Orleans, grounded in data and community input. This approach will enable the agency to manage its data better and enhance service offerings to achieve Strategic Mobility Plan target statistics. Adopting these recommendations will significantly bolster the agency's commitment to public transparency.

To provide world-class transit to all it serves, the RTA must implement optimal service changes in line with its Fixed Route Service Standard Policy while meeting the targets and commitments of the Strategic Mobility Plan. The agency must produce high-quality data across all areas. When the agency makes service improvements rooted in openness and transparency, it will truly demonstrate a commitment to being data-driven. A renewed focus on riders and corresponding historical data will elevate the RTA to a higher operating standard and better serve the community.



RIDE volunteers and supporters on the bus, RIDE

Moreover, the public deserves the highest level of transparency from the RTA. Quality, detailed information

empowers the public to make informed decisions regarding their transportation needs and holds the RTA accountable to its data and service target commitments.

RIDE's research has clarified that procedural, technical, and capacity challenges have hindered the RTA's ability to become data-driven. Literature and case studies profoundly illustrate the potential benefits of good data practices, along with open portals, maps, and dashboards.

It is time to bridge the transparency gaps in RTA's data reporting. By adopting our recommendations, the RTA will be able to convey data narratives more clearly and formulate dynamic plans to share with riders and stakeholders. Relatively modest technological and staffing adjustments and investment in a comprehensive needs assessment will yield significant long-term benefits.

Emphasizing social equity, mobility freedom and access, and creating a city of opportunity for everyone, requires prioritizing quality and open transit data. We urge the RTA to allow data to guide our region forward by fostering a system where transit is frequent, reliable, accessible, comprehensive, and user-friendly.

Publish the Fixed Route Service Standards Policy and Service Standards Reports on the RTA website.

- The former should be available to the public anytime as a core agency policy backed by federal regulations.
- The latter should be posted online, as the need to attend RTA board meetings to access this information is an infeasible and unfair expectation.

Publish open datasets on the RTA website reflecting all data metrics for which the agency possesses dependable statistics, even if methodologies and sources need reframing for consistency.

- This includes metrics around ridership, service completion, average system speed, and on-time performance.
- Once public, data should be updated monthly to provide frequent, recent stats that continually illustrate changes.

- This task should be completed as soon as possible and before challenges related to overall data handling are addressed.

Conduct a needs assessment to identify necessary capabilities and resources around data tracking.

- The results of such an assessment will be vital for the success of all of the recommendations on our list.
- We recommend the RTA utilize a team of expert consultants to conduct the assessment, rather than rely on in-house auditing. This will better guarantee the integrity of implemented strategies.

Complete APC (Automatic Passenger Counter) validation on all streetcar lines besides St. Charles (#12).

- This is a significant step needed to improve data consistency, bringing methodologies in line with each other.
- The agency must also reconsider installing APCs on the St. Charles streetcar to ensure they adhere to the established standard.

Invest robustly in data infrastructure and capabilities.

- This includes procuring innovative technologies to collect and process data and hiring analysis staff to support the capacity necessary to meet tracking goals and transparency commitments.
- Great emphasis must be placed on hiring, as the work will not be done without professionals whose sole obligation is to manage and consistently publish this data.

Internally allocate data responsibilities, denoting specific staff member or team duties.

- This will guard against tasks being pushed to the wayside due to a lack of resolute assignment.

Stress consistency, granularity, accuracy, and timeliness in developing strong and sustainable open data practices.

- Consistency allows for proper comparison within metrics.
- Granularity permits the gleaned information to be analyzed at different levels of specificity, such as the entire system, service modes, individual routes, or single stops.

- Without accuracy, any kind of data is rendered useless.
- Timeliness is key, as the RTA and the public should regularly know about current transit quality.

Clearly define data sources, especially around network/access metrics, and their processes for calculation.

- Research and combine inventories of various community assets, institutions, and key landmarks for spatial analyses.

Establish consistent data retrieval methods for identified metrics, such as dwell time and service completion.

- Implement technological and procedural improvements to ensure that transit vehicle runs are accurately counted, data files are properly saved and transmitted, and dwell durations are recorded at the proper times.

Expand and update the online portal consistently as data becomes available.

- This will culminate in a robust online collection of datasets, dashboards, and maps, giving New Orleanians a transparent and consistent view of the state of their public transportation system.



RIDE volunteers and supporters on the bus, RIDE

Authored by Samuel Strait, RIDE Policy Intern,
and Samuel Buckley, RIDE Policy Director

Samuel Strait (Sam) conducted background research and drafted the bulk of the report. He was the Summer 2024 RIDE New Orleans Policy Intern, completing Capstone Experience credit towards an August 2024 Bachelor of Arts in Environmental Studies (Social Sciences Concentration) from Loyola University New Orleans. Originally from Colorado Springs, CO, he has lived in New Orleans since transferring to Loyola in 2021. During this time, he has frequently ridden the St. Charles Streetcar (#12) and bus lines #51, #52, #57, #84, and #91. He can currently be reached for any inquiries or discussions at policy@rideneworleans.org.

Samuel Buckley (Sam) guided and significantly informed every aspect of developing and conducting research for this report, while also supervising Sam Strait's summer policy internship. He served as the Policy Director for RIDE New Orleans from April 2023 to December 2024. An AICP-certified planner, he has extensive experience in urban planning, particularly in transportation. He holds a Bachelor's degree in Government from Georgetown University and a Master's in Regional and Urban Planning from the University of New Orleans. A native of New Orleans, Sam regularly rides bus lines #9 and #91, and is well-versed in the local transit network as a whole.

Bibliography

National Center for Applied Transit Technology. (2021). (rep.). *Data Practices Guidebook*. Retrieved from <https://n-catt.org/wp-content/uploads/2021/06/Final-Data-Practices-Guidebook.pdf>.

TransitCenter. (2018). (rep.). *The Data Transit Riders Want: A Shared Agenda for Public Agencies and Transit Application Developers*. Retrieved from https://transitcenter.org/publication/transit_data/.



AUTHOR BIOGRAPHIES AND BIBLIOGRAPHY

RIDE

WORLD CLASS TRANSIT FOR NEW ORLEANS