

# LEADING WITH TRANSIT

HOW CITY LEADERSHIP ON TRANSIT CAN  
CREATE MORE EQUITABLE, SUSTAINABLE, AND  
ECONOMICALLY VIBRANT CITIES

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## INTRODUCTION

Affordable, reliable, and equitably distributed transit can offer enormous benefits to U.S. cities, which today are growing, changing, and diversifying. Transit that is well-planned, well-funded, and well-operated can help protect the environment, improve public health, encourage economic development, raise standards of living, and reduce racial and income-driven disparities.

Despite these many potential benefits, transit ridership today in most cities is falling. Faced with competing transportation options and aging infrastructure, cities must deploy targeted resources and explore key strategies to ensure a robust, sustainable transit system that helps it meet its equity, economic, and environmental goals and obligations. Good transit policy and infrastructure can be put to work to dramatically improve cities, but local governments need to implement policy using a holistic, non-siloed approach centered on equity. Mayors and other city leaders must understand the big picture, use their leadership role to hire and champion effective staff, and direct city departments and transit authorities to work together to design integrated transportation options that consider all modes of transit and all riders.

This brief focuses on what cities, in partnership with their community members, transit agencies, transit boards, and advocates, can do to create equitable and efficient transit that benefits everyone. Increasingly, cities are making public commitments to be more equitable and environmentally, economically, and politically sustainable. Investing the time and money into good transit can contribute to these wider goals, providing multiple benefits. In this way, the values that contribute to a successful transit policy are a reflection of good values for a city working on sustainability and equity.



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## SUMMARY

Transit is a lifeline for many, and an efficient way to travel for fun and leisure. A robust transit system helps cities with a multitude of social, economic and environmental benefits.

Efficient, effective transit requires proactive public engagement and coordination between local government leadership, departments, and transit agencies.

On transit, cities can lead by example, making decisions that reduce disparities, improve air quality, and increase access to key destinations.

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## SUMMARY OF KEY VALUES FOR EQUITABLE TRANSIT

**Safe, convenient, and accessible:** Effective and equitable urban transit systems are designed and maintained to serve all riders. They provide reliable and frequent service for more than the traditional 9 to 5 commuters, with infrastructure that is well maintained, clean, welcoming, and safe regardless of its location. Transit that is well-connected to bike and pedestrian infrastructure provide equitable access for all riders regardless of the mode used to reach it. Routes should be clear and easy to understand, posted in languages that serve the riders who depend on them, and paying for and accessing transit should be transparent and simple for all ages and income levels.

**Affordable:** Transportation costs as a percentage of household income disproportionately burden low-income populations, people of color, and others who rely on it to provide access to jobs, educational opportunities, and other services. Creating affordable transportation options means reducing barriers to participate in the transportation landscape. Discounted fare programs and fare subsidies for low income riders or those who depend most on quality transportation, and providing a variety of easy payment options, are ways to increase access. Public-private partnerships, such as multimodal ride sharing agreements, can also assist cities in areas of low population density.

**Holistic and integrated:** Transportation diversity is the key to a holistic transit system, and it requires breaking down traditional government silos and coordinating on issues including but not limited to bus and train systems, stop location, road construction, bike and pedestrian infrastructure, and building permits. Land use policies and zoning regulations promoting compact mixed use development and complete streets set the stage for a sustainable transit system. Likewise, housing and transportation policies and programs need to be considered together, because for housing to be truly affordable, it must also be accessible. Otherwise, we risk pricing transit riders out of transit-accessible neighborhoods and simply shifting a housing cost burden to a transportation cost burden.

**Responsive:** A good transit system proactively solicits input from the community, incorporates those needs into planning processes, measures its success based on its ability to meet those needs, and regularly and systematically gathers feedback to assess its performance. Traditional forms of gathering feedback are not sufficient to address equity concerns, because those who most often offer their feedback do not represent all riders. It is incumbent on city and transportation leaders to actively seek out input from all types of riders and to respond to their needs.



# MOVING TOWARD AN EQUITABLE AND EFFECTIVE TRANSIT SYSTEM

Transit supports a wide variety of activities in a city, making consideration of how transit service is planned, designed, and delivered a critical quality of life, economic development, and social justice issue. Everyone benefits from well designed and efficient transit. Ahead, we lay out steps you can take to assess your current system and interventions you can implement to make your city's transit system more equitable and sustainable.

## ASSESSING YOUR SYSTEM: USING DATA

Good data on your existing transit system is key to understanding user experiences and needs. Before considering changes to your transit network, conduct a detailed assessment of your city's current transit system to identify strengths, weaknesses, and priorities for planning for improvements. If data is missing, develop plans to acquire this data.

A variety of data are needed to identify strengths, weaknesses, and opportunities in a system. Primary data available to cities, MPOs and transit agencies include:

**In-House:** This is data that transit agencies normally have on hand—for example, schedule data, system maps, origin/destination studies, boarding and alighting surveys, service design standards, dispatch logs, maintenance records, operations logs, accident and incident records, financial data, fleet data, employee records, and complaint records. This data paints a picture of service frequency and geographic coverage, identifying areas of high ridership or high potential ridership as well as transit deserts. Use this information to develop plans for improved service and associated costs.

**National Transit Database:** This is the primary source for data, information, and statistics on U.S. transit systems.<sup>1</sup> Reporting is required by those receiving Urbanized Area Formula Program (Section 5307) or Rural Area Formula Program (Section 5311) grants. Examples of datasets include: service area, agency information, fleet information, capital and operating funds, costs and expenses, maintenance, safety, service provided and consumed, and energy consumption. These data should be used in tandem with in-house data to develop service changes and improvements.

**Census:** This data shows population densities, employment and other demographics to help target location of efficient service (high density area) or where transit is essential (low income or low car owner census blocks). A city or metro-region should use census data to identify communities that are predominately low-income or low-car ownership. Once identified, overlay that information on a map showing transit service availability and service areas. This will identify underserved areas by levels of service frequency and coverage. Key questions to ask of this data include:

- Does transit make useful connections between underserved areas and both work and non-work destinations?
- Where are the underserved areas that would benefit from improved transit access?
- Is the service frequent enough (in well-served and underserved areas) during off peak hours to be useful and effective and competitive?
- What is needed to make this network available, accessible, and whole?

*Genuine engagement of a diversity of stakeholders is not just good for citizens; it will offer the best data about who will actually use your transit system and how they will use it.*

**Traffic Data:** Traffic data from city traffic and engineering can inform planners on bottlenecks or other traffic patterns needing improvement to maximize transit's potential. This data may reveal intersections or corridors where running buses in mixed traffic creates problems with efficiency and reliability.

**Internal Data:** Land use densities, GIS data, and transportation-planning models from a city's MPO or planning department.

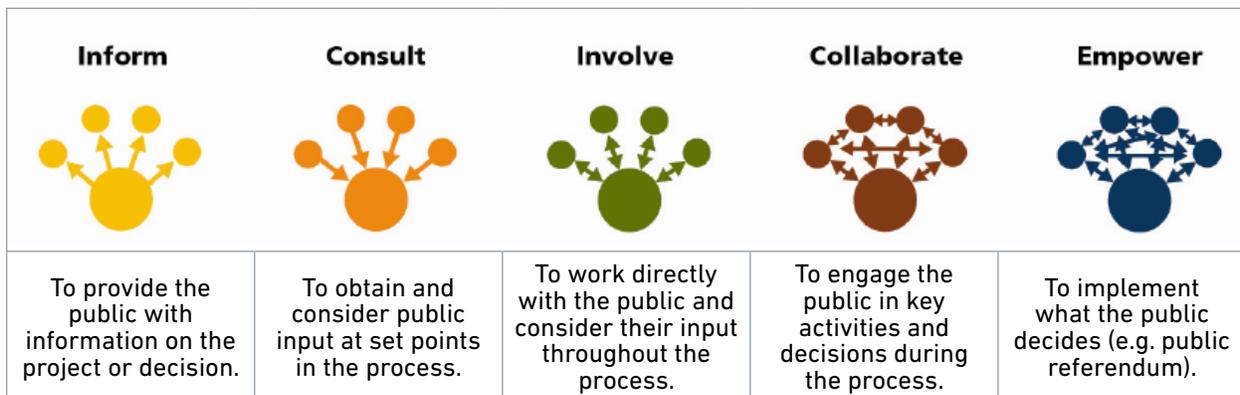
**Automated systems:** Agencies with automatic vehicle location, automatic passenger counters, and electronic fare boxes should take advantage of the data generated by these technologies. Information from automated systems provides critical information on vehicle run times, which helps improve scheduling, and fare-box counts collect key data on popular routes and when buses may be exceeding passenger capacity.

**TNC Data:** Data gathered from Transportation Network Companies (TNCs), such as Uber and Lyft, can be invaluable to transportation planners in understanding mobility patterns, especially as use of these services grow and change. Cities should consider establishing data sharing agreements with TNCs as they become ever more important in cities' transportation landscapes.

Establishing metrics to track system performance provides data to back decisions on capital investments and changes to system operations. Using baseline data for an existing system, cities should work with their transit agencies to develop measures in addition to the standard measures found in the National Transit System database. Specific measures to track changes after a system investment could include tracking of changes to auto vehicle miles travelled (VMT), crime rates, changes in adjacent business development, retail activity, and access to employment centers. Measures should be used to develop and evaluate projects, for project selection, or to justify the efficacy of a particular action the agency has taken.

## PLANNING YOUR SYSTEM: CONDUCTING MEANINGFUL AND WELL-TIMED STAKEHOLDER ENGAGEMENT

Cities and transit agencies should take steps to elicit input from as many riders and potential riders as possible, not just the active and engaged few. Transit impacts the ability of residents to access jobs, social networks, and educational opportunities; it also impacts business' ability to generate income and serve customers. Attitudes toward transit are also closely linked to other deeply held attitudes about city growth, economic development, climate change, and municipal spending. Low income communities and communities of color are more likely to rely on public transportation to access these opportunities, so cities need to put more resources into reaching these communities, informing them about opportunities to influence planning, and incorporating their needs into plans. Because of all this, good public engagement is paramount to establishing and running a good transit system.



Source: Tompkins County, NY, Public Participation Toolkit, <http://tompkinscountyny.gov/tccp/publicparticipation>

Good engagement is clear and transparent – meaning that the goals and outcomes are understood and communicated both internally and externally. Engagement can have many different desired outcomes – from gathering initial ideas, to collecting reactions to an idea, to simply informing the public about something that is happening. It is critical that local government be aware of what kind of engagement they desire, to communicate that to participants, and to structure the engagement in a way that facilitates that desired outcome. Tools like the public participation spectrum above can help you recognize what outcome you want from an engagement and help you design outreach tools and meeting activities to match it.

Too often, public meetings around plans – including transportation plans – are advertised as venues to solicit feedback on a plan that may already be in motion. Especially where the public is likely to be significantly impacted, cities should aim for more proactive engagement, eliciting input from stakeholders before plans are made and contracts secured. This treats impacted communities and users as partners in the process of designing and improving systems. Efforts should be made to communicate and build trust with community organizations that represent a variety of residents in our community, and to partner with them when exploring opportunities for system changes. Where a meeting exists mostly to inform the public of likely changes that will impact them, this should be clearly communicated. Where there are instances where previous public input was considered and either incorporated into a plan or dismissed for some reason, this should also be communicated back to the public that took time to offer their input.

Genuine engagement of a diversity of stakeholders is not just good for citizens; it will offer the best data about who will actually use your transit system and how they will use it. A good first step is to know your ridership, using maps and data points from the U.S. Census Bureau. The Center for Neighborhood Technology is another good resource for research, tools, and policy recommendations to help you identify and reach those affected by transit. Ensure that your community engagement extends into all those communities affected, being particularly aware that it is often harder to reach under-represented communities such as immigrants, low-income families, people of color, the elderly, the disabled, and non-English speakers.

Strategies to ensure their voices are heard include:

- Partnering with trusted community-based organizations that are known and respected by under-represented constituents;
- Offering non-English translations on printed and electronic publications and during public meetings;
- Offering many ways for the public to engage, such as online, in-person, and via phone, mail, and social media;

- For meetings, workshops and charrettes, offering multiple dates for engagement that recognize the diversity of schedules represented in your population;
- Ensuring that these meetings take place in locations that are reasonably accessible by transit; if possible, hold meetings at multiple locations if your transit area is large;
- Asking to be on the agenda of others' meetings in the community and reaching people where they are and where they feel most comfortable helps build long-term relationships with community assets; consider going to others' meetings, even if you're not on the agenda. Neighborhood centers, churches, schools, libraries, and the like are good places to start;
- Be mobile; consider taking your engagement on the road not just at others' meetings, but at community events such as festivals, picnics, farmers markets, music events, etc. are good places to consider; think about what kinds of these events are well-attended in your city;
- Offering childcare at meetings, especially if they are held after traditional working hours.

It is important to customize your engagement depending on the scope of your transit project. For example, public engagement strategies around a bus route change or expansion will differ substantially in scope and timeline from one seeking feedback on transit station improvements. Large-scale transit projects impact different communities and stakeholders differently – both in timing and scale of impact – over the course of a project.

Relying on effective engagement strategies can give you robust, reliable data about what users actually want, improving your likelihood of building a transit-supportive community with strong, diverse, and sustainable ridership. Surveys have shown that most riders are focused on how the transit serves them – if it is convenient, affordable, reliable, safe, and clean. Modern updates like Wi-Fi and charging stations at depots and on transit may sound appealing, but these amenities consistently rank low on the list of things riders actually care about.<sup>2</sup>

## PLANNING YOUR SYSTEM: SHORT AND LONG-RANGE PLANS, AND PLANNING PROCESSES

Consider the above data assessment the beginning of developing a short- and a long-range plan to guide the future of the City's transit system. A short-range plan will span approximately five years. A long-range plan should be cover approximately 20 years, with periodic updates built in.

Short-range transit plans, like Valley Metro's in Phoenix, AZ<sup>3</sup>, provide short-term direction for funded transit capital and operations. The plan serves to track transit performance, manage infrastructure, and identify opportunities for service adjustments or adjustments to capital investments that may be incorporated into the current plan as an amendment or included in a long-range transit plan.

The Boulder, CO's Transportation Master Plan illustrates a best practice in long-range planning. This is a living plan that is updated regularly, ties into other relevant local and regional plans, sets clear goals, and takes action to achieve sustainable transportation infrastructure.<sup>4</sup>

The planning process should seek to identify the part of the network that has or will have frequent service (15 minute or less) headways, what areas should have 30-minute service and where less frequent or shuttle service may be appropriate. Look at current development and consider future developments and what needs to be done to efficiently connect destinations such as homes, jobs, educational opportunities, and retail. All these decisions have implications for racial and economic equity in their distribution of access and reliability, issues that we discuss in more depth in subsequent sections.

Both short and long-range plans should incorporate and be assessed on equity impacts and include equity indicators to measure performance. The Federal government requires Metropolitan Planning Organizations to conduct an equity analysis in their long-range transportation plans pursuant to Title VI and Environmental Justice, but these analyses should be held to a high standard and go beyond federal requirements to address circumstances on the ground.

Cities can make a formal commitment to equitable transportation planning, as Seattle, WA did when its City Council adopted a 2018 resolution stating that the Seattle Department of Transportation is to provide “accessible and affordable transportation options that support communities of color, low-income communities, immigrant and refugee communities, people with disabilities, people experiencing homelessness or housing insecurity, LGBTQ people, women and girls, youth, and seniors.” While a resolution itself does not commit the city to substantial obligations, the city is showing its commitment through funding and hiring staff for its newly created Transportation Equity Program. The program’s early work is focused on relationship building with residents and community leaders, and communicating effectively with transit agencies that control King County Metro and Sound Transit, who operate the bus and metro systems in the city.<sup>5</sup>

## MANAGING YOUR SYSTEM: GOVERNMENT AND AGENCY ROLES, AND BREAKING DOWN SILOS FOR EFFECTIVE TRANSIT

From the perspective of users, “transportation systems” generally refers to a variety of means they use to get from one place to another. In reality, the design and management of a transit network is a complicated and multi-jurisdictional exercise that can require coordination and communication between multiple city departments, multiple cities, a county authority, a Municipal Planning Organization, and a Transit Agency. Traditional governmental and departmental silos are barriers to comprehensive transportation planning.

Some cities have taken steps to ensure existing internal departments that impact transportation issues are working together to benefit long-term and multi-modal transportation options. Cities can work to build the capacity of these departments to work together inherently, or they may focus on new hires such as a “mobility coordinator” whose job it is to coordinate across departments. The City of Austin, TX through its Transportation Partners effort, has brought together different agencies and departments at the city, regional, and state levels to coordinate delivery of transit, and transportation more generally, in the city. In addition to the city Transportation Department, these partners are “responsible for building, maintaining, and planning transportation in Austin.”<sup>6</sup>



Lakeline MetroRail Station, Austin, TX  
Source: Larry D. Moore [CC BY-SA 3.0 or GFDL]

The types of data presented in the section “Assessing your system: Using Data” should be used when coordinating between city planning, streets and other departments with jurisdiction over land uses, zoning, and actions that impact transit. This coordination helps ensure the different city departments reach a common understanding of their roles in achieving a robust, city-wide transit system.

Aside from internal coordination, cities and transit providers must also communicate with each other. As recognized by Oregon’s Transportation and Growth Management Program, which supports efforts to expand transportation choices, “On their own, transit providers lack the jurisdictional authority to ensure that key transit facilities, along with connections to, from and around such facilities, are designed to strengthen downtowns, main streets, and communities. For this reason, it is critical that transit providers collaborate with major stakeholders: cities/counties, the state, school districts, community colleges, universities, merchants, public health officials, private developers and the general public.”<sup>7</sup>

Effective partnerships between transit agencies and city departments are key to maximizing opportunities for transit improvements. Transit agencies control many, but not all, aspects of how public transit is delivered, and agency areas of influence and roles are summarized below. The American Public Transportation Association’s “Defining Transit Areas of Influence” and TransitWiki, an informational clearinghouse site developed and maintained by transit professionals, provide useful overviews of transit agency activities and areas of influence. These should be consulted when a city considers how to support a successful transit system.<sup>8, 9</sup>

Broadly speaking, transit agencies design networks, provide day-to-day system management, provide ADA paratransit service, establish service area boundaries, publish schedules, and determine frequency and stop spacing. They also set service hours and fares (which they influence but often need outside authorization for), provide marketing and information, and make decisions about safety and security. When a transit system decides to investigate, develop and adopt new technology such as real time bus arrival displays, fare box payment options, transit agencies are usually making those decisions.

There are many critical aspects of successful transit that fall outside of agency control. For example: Cities commonly control land use decisions through zoning and permitting. Although sensitive to the context of individual cities,<sup>10</sup> bus transit is understood to be ineffective without minimum residential densities of at least 12 people per acre.<sup>11</sup> Transit agencies need to communicate and partner with the cities they serve to ensure land use policies support efficient transit. Construction of transit-supportive sidewalks, bike facilities, and connected street networks often fall outside the control of a transit agency. As urban planning academic Paul Mees once said, “a poorly connected pedestrian network can ensure that much of the stuff that’s within a 400m radius is not in a 400m walk.”<sup>12</sup> Because the allocation of street right-of-way is always political, operational improvements like dedicated right of way or signal for transit require partnerships with local staff and elected officials to get buy in and navigate political and public will.

Most transit-heavy cities are situated within a metro region, and any with populations greater than 50,000 are required to be represented by a Metropolitan Planning Organization. Coordination of the city’s transit plans with regional plans will make the city’s plans more effective and efficient. The plan should be used to steer land uses and development, explicitly linking land use to transit service. Developers – especially but not exclusively those whose plans desire or require transit access – should be encouraged to locate in areas with existing transit or in areas that already have a plan for enhanced transit service, rather than asking for improved service down the road.

## PLANNING YOUR SYSTEM: LOCAL STRATEGIES THAT SUPPORT GOOD TRANSIT

Transit planning is by necessity linked to issues of land use and development, as discussed above. Transit Oriented Development (TOD) is community development incorporating a mixture of residential, commercial, and office space in a walkable neighborhood, all within a half-mile of public transit. TOD is an important tool for cities working on developing transit supportive neighborhoods.<sup>14</sup> TODs often see increases in real estate values and reduction in affordable housing. TOD has the potential to increase demand for transit, but affordable housing must be built into TOD plans to ensure that the transit dependent populations that they serve are not priced out of the neighborhoods that they seek to support. Policies, such as funding a fixed percentage of affordable housing in the development plan, should be in place to mitigate this challenge.

As the number of TOD projects across the country increases, best practices are emerging. Denver, Colorado<sup>15</sup> has completed transit-centered projects that illustrate how TOD fosters the type of compact development that increases livability and equity by providing access to jobs and services to non-drivers and drivers alike. Completion of a light rail transit extension in a neighborhood in Portland, OR was shown in one study to increase density, increase walking and transit trips, and slow the increase in VMT per household over time.<sup>16</sup>

Local governments may also establish Transportation Demand Management (TDM) plans and policy. TDM strategies encourage the use of non-auto transportation modes like transit, rideshare, walking and biking by improving the quality of non-SOV options, reducing barriers to using them, and raising awareness of these other modes. All of this serves to make them more appealing options than SOV travel. One proven TDM strategy to influence transit use is to provide subsidized fares or passes for local transit. Successful TDM can improve mobility, resiliency and quality of life by reducing overall travel demand, especially from single occupancy vehicles. For more on the topic, read [Modernizing Mitigation: A Demand-Centered Approach to Reducing Car Travel](https://www.mayorsinnovation.org/resources), found at [mayorsinnovation.org/resources](https://www.mayorsinnovation.org/resources).

### ENCOURAGING GREATER REPRESENTATION IN TRANSIT AGENCY LEADERSHIP

Transit agencies are governed by a board of directors that is either elected or appointed by city leadership. The board makes decisions that influence the vision, priorities, and resources allocation within a transit system. According to the 2014 Transit Board Member Handbook, transit board members are overwhelmingly white and male. This is reflected in research undertaken by Julia Ehrman of TransitCenter, who in 2018 looked at the racial and gender composition of transit boards in Atlanta (GA), Boston (MA), and Portland (OR).<sup>13</sup> Her research showed that these boards did not reflect the demographics of their riders, in all cases being whiter and more male than their ridership. While this research looked at just a few transit boards, we suspect that this trend is prevalent across the country. This sets up a situation in which those making decisions about transit may not understand the needs and circumstances of those using transit. This is just one way in which transit decision makers and transit riders may differ, and underscores the need for both more diverse transit boards and meaningful engagement of riders in transit decision making and planning. Mayors who do make board appointments should use this opportunity to help ensure that their boards more accurately reflect their transit ridership.

*The tension between planning transit for maximum coverage versus planning transit for maximum ridership essentially leads to a more fundamental one: what is the purpose of public transit? Is it to serve the greatest number of people, or to cover as much of the city (or surrounding area) as possible?*

Finally, parking policy is an important and often overlooked part of urban transportation and land use systems. Excessive availability of free and inexpensive parking can reduce interest in transit and has been shown to increase the per capita number of trips and VMT. Cities should manage parking pricing and policy to align with the municipalities larger transportation and livability goals. Visit the Mayors Innovation Project [Urban Parking](#) brief to learn more about sound policy on parking.

## DESIGNING YOUR SYSTEM: BALANCING GEOGRAPHY AND RIDERSHIP

Discussions and decisions to create an accessible municipal transit system typically address two key themes – geography (sometimes referred to as coverage) and ridership. The tension between planning transit for maximum coverage versus planning transit for maximum ridership essentially leads to a more fundamental one: what is the purpose of public transit? Is it to serve the greatest number of people, or to cover as much of the city (or surrounding area) as possible?

Transit agencies can choose to focus their attention on serving areas that have the most riders, a tactic that makes fiscal and environmental sense. Cities want full buses travelling the most highly desired routes. But focusing too much on ridership ignores underserved areas and vulnerable communities, which often rely most on transit. This approach pays too little attention to the many obstacles that might prevent potential riders from accessing transit and the ways in which these obstacles are often symptoms of larger issues of inequity. Balancing these competing strategies should be an intentional conversation in the transit planning process.

Many cities aim for a mix of coverage and ridership service. There's no one-size-fits-all answer to this question, but understanding and recognizing the trade-off's inherent in these decisions is key, as is making this a robust and public discussion. The Edmonton City Council publicly debated this issue in 2014, and the process benefited from the commitment of local journalists to covering it.<sup>17</sup> Public discussion of the issues has continued; in 2016, Edmonton hosted an online survey as well as two public workshops to gather public input on this issue.<sup>18</sup>

When discussing this issue internally and externally with stakeholders, make sure you have good, reliable data about accessibility. AllTransit<sup>19</sup> is one such data source, allowing you to access data related to the number of jobs accessible via transit for households in different neighborhoods, the number of jobs located near transit, and the number of workers who live near transit, among other things.

## DESIGNING YOUR SYSTEM: TIMING AND RELIABILITY

Closely aligned with issues of geography and ridership is the timing, availability, frequency and speed of service. In most cities, transit runs more frequently during peak hours, between approximately 6-9 AM and 4-7 PM. Focusing efforts on improving peak hour transit ignores a growing percentage of the population that works off-peak or irregular hours. In some cities and on some routes, off-peak ridership is growing faster than peak ridership.<sup>22</sup>

Improving off-peak frequencies for transit provides critical access for employees not working traditional office schedules. This is a key consideration, too, for equity; low income residents use off-peak transit at much higher rates than other income groups. Figures from the 2009 National Household Travel Survey (NHTS) indicate that households earning less than \$20,000 are far more likely to use off-peak transit than peak transit (44 percent vs. 28 percent) and that those households earning less than \$20,000 are far more likely to use off peak transit than those earning over \$75,000 (44 percent vs. 6 percent).<sup>23</sup>

Car ownership heavily influences these figures, as those in lower income brackets are less likely to own a car, making them heavily reliant on transit for their shopping, employment, education, and leisure. Figures from the 2009 NHTS indicate that zero-vehicle households used transit for 23.6 percent of trips compared to just 3.1 percent for one-vehicle households, and that 21.4 percent of households making less than \$20,000 do not own a car, compared with just 6.1 percent of households making over \$20,000.

### HOUSTON'S BUS SYSTEM, REIMAGINED

Houston, TX confronted the question of geography and ridership in 2016, when it undertook a massive reorganization of its bus system. The implementation of the route changes



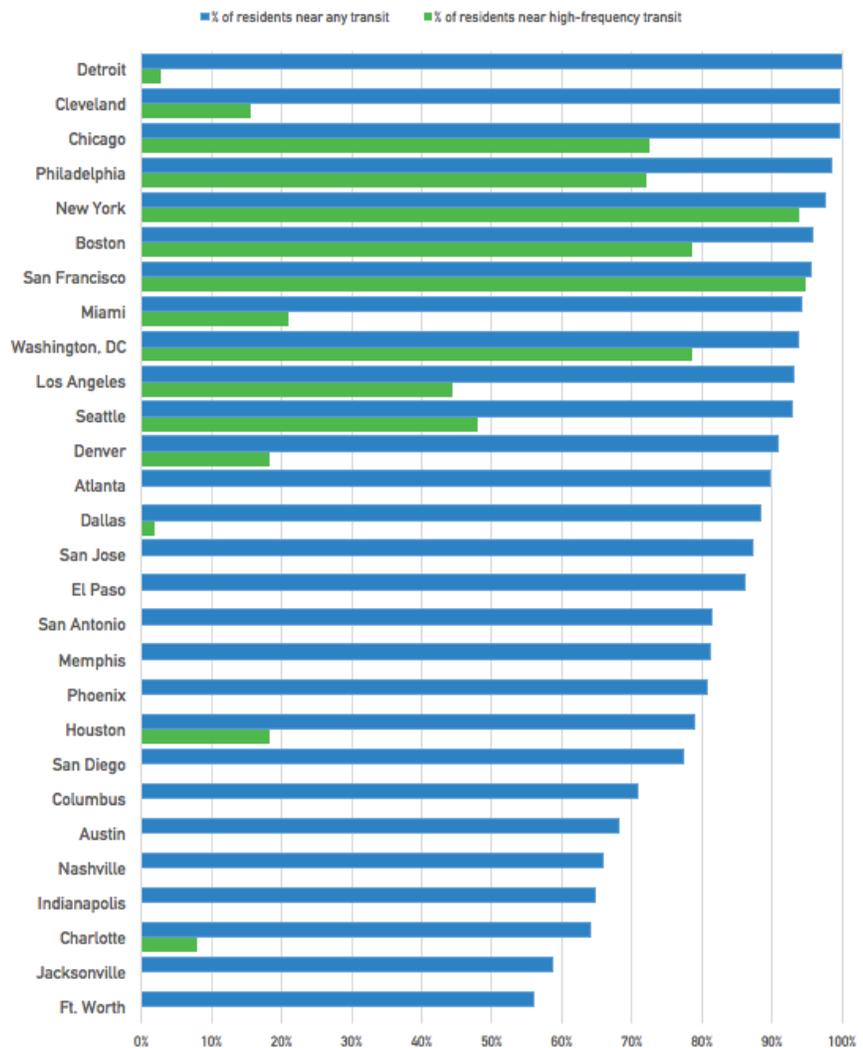
Christof Spieler  
All Transportation is Local Workshop  
Denver, CO, 2018

took place literally overnight, but the changes were considered over a significant research and engagement period, and planned to capture opportunities from re-organization, not an influx of additional financial resources. The city's METRO Transit System Reimagining project held a series of workshops with a 120-member stakeholder group comprised of residents, community leaders, and METRO staff. In addition to workshops, they used a variety of other gaming and online techniques to elicit feedback from and inform residents about the changes coming.<sup>20</sup> METRO combined input from the public and stakeholder group with a system assessment, and designed a network where 80 percent of the resources would serve maximum ridership and the remaining 20 percent of resources would aim to serve coverage, in contrast to what they estimated to be a 50-50 split previously.<sup>21</sup> The result is a fundamental redesign that recognizes that some routes may never be well used, but are fundamentally necessary for the well-being and economic opportunity of residents. Houston METRO Board member Christof Spieler recently summarized the changes at a Mayors Innovation Project workshop, *All Transportation is Local*, noting that "a bus route is a promise to riders, and sometimes you just need to build confidence in the system" by making a commitment to have reliable, frequent service in areas that may not have high ridership.

Other low-wage workers that may own a car could still save considerably if transit service were available.

Frequency and reliability of service can heavily influence ridership. With transit use falling in most cities nationwide, transit reliability should be a concern for any city experiencing ridership decline or hoping for ridership increases. For example, ridership for Miami-Dade Transit in Florida has declined 25 percent since 2013. In a review of changes in their transit service, The Transit Alliance found that the system has cut service on many routes and that hundreds of buses run late – or never arrive – every month.<sup>24</sup> If a commuter can't expect predictable and timely service, they are unlikely to make the decision to rely on it as a means to get them to work or other destinations.

### Who lives near transit?



So what can increase speed, frequency, and reliability? Transit-only lanes give priority to buses and metro lines, and often provide a protective barrier for walking and biking infrastructure. Similarly, giving transit priority through “queue jump” lanes and signal prioritization can maximize the speed and efficiency of transit in congested urban areas, making transit an appealing alternative to drivers and commuters. Cambridge, MA is experimenting with such lanes through a partnership with the Barr Foundation.<sup>25</sup> Seattle, WA’s Third Avenue, once a hot spot for rush hour traffic, is now transit-only during peak hours<sup>26</sup>, and the city is considering expanding that to 24 hours.<sup>27</sup>

*Historical disinvestment in low income communities and communities of color, coupled with the displacement and isolation of them, have contributed to critical disparities in access to and participation in the benefits of effective transit. Only by recognizing these historical inequities ... can cities hope to develop equitable transit infrastructure and systems.*

Streamlining transit boarding and payment options can reduce delays and increase ease and accessibility, resulting in better service and potentially higher ridership. NACTO and TransitCenter have examined impacts in cities that have experimented with or implemented off-board fare collection and all-door boarding in a 2017 brief, “Better Boarding, Better Busses: Streamlining Boarding & Fares.”<sup>28</sup> The solutions explored in that report are simple, applicable to most systems, and inexpensive to implement, including:

- Barrier free boarding refers to the practice of removing fences, turnstiles and card readers at metro stations, replacing them with spot checks on transit payment.
- All door boarding simply means allowing riders to use all doors to board, and is enabled by allowing off-board payment (or pay stations at multiple entrances). All door boarding greatly reduces stop time and route speeds, increasing efficiency. This can be done at all stops or just at select stops.
- Streamlined payment options, such as multi-purpose transit cards (which work across different transit options like bus and rail) and phone applications that ease payment and account reloading, make paying for transit easy, and recognize that users of one transit system are likely users of another. Having kiosks that can take cash in addition to cards while still offering discounts for multi-ticket options is key to ensuring access for all.

## INFUSING EQUITY IN YOUR SYSTEM: ECONOMIC DEVELOPMENT AND AFFORDABILITY

Connecting people to jobs, shopping, education, and healthcare is an essential measure of a successful transit system. Investment in and improvements to public transit are known to spur economic development given the correct supporting city policies, such as zoning that incentivizes clusters of high density employment, retail, and residential development. A recent study estimated center-city wage increases of between \$1.5 million and \$1.8 billion per metropolitan area annually when a city increases transit investments (frequency and capacity) by 10 percent.<sup>29</sup>

Despite this, transportation costs consistently rank as the second highest household expense in the nation, with housing the highest. For lower-income households this often flips, with transportation being the greatest expense. When the percentage of income spent on rent and housing is excessive or unaffordable, we call those individuals or households cost burdened, typically meaning that they spend more 45 percent of their income on housing and transportation combined.

For these households, having access to timely and efficient affordable public transportation can drive community development and opportunity. Better transit options can help solve many of the problems faced by lower-income riders – housing affordability, job access, access to healthcare, etc.<sup>30</sup> Making these connections becomes increasingly important for low-income people living in areas that are poorly serviced by transit.

According to Pew, “Americans who are lower-income, black or Hispanic, immigrants, or under 50 are especially likely to use public transportation on a regular basis,” and low income workers spend a significantly higher proportion of their income on transportation.<sup>31</sup> Worse, disparities in transit access may exacerbate disparities over time; some studies have correlated access to transit with future earnings prospects, including a 2015 Harvard study that found commute time to be the single strongest factor in odds of escaping poverty.<sup>32</sup>

Research by organizations such as PolicyLink has shown that the U.S. economy would significantly benefit from closing racial and class income disparities. Meanwhile, a growing body of research on the social determinants of health have shown that these vulnerable populations are most likely to suffer the health effects of congestion, pollution, and poor access to services and opportunities created by ineffective transit systems.

Historical disinvestment in low income communities and communities of color, coupled with the displacement and isolation of them, have contributed to critical disparities in access to and participation in the benefits of effective transit. Only by recognizing these historical inequities and devoting resources to address them through transportation planning and investment strategies can cities hope to develop equitable transit infrastructure and systems.

It is important to note that there is a significant difference in the economic and racial profile of frequent bus users and frequent rail users. Buses are more likely to serve low income and minority users, and rail transit is more likely to serve a majority of higher-income riders. In thinking about equity in their transportation system, cities and transit agencies need to consider the investments they are making across the transportation spectrum, as these decisions may strongly impact the populations they are serving.<sup>33</sup>

Affordability is important because it contributes to strong ridership, which leads to sustainability of the transit system, which offers a multitude of benefits to cities. One way to address affordability for all riders is by offering discounted or reduced fare options for vulnerable, low-income, and transit-dependent groups. The Transit Assistance Program in Minneapolis, MN does this by offering qualified commuters a discounted rate of \$1 per ride for bus and train fares at any time of day. Those eligible for TAP show proof of eligibility to receive a TAP card, and can then use the card to access rides for \$1 per fare for a full year. The city is covering the \$3 million annual cost in part by discontinuing the stored value bonus (whereby those who pay for many rides in advance secure a discount on their per-ride cost) for regular card holders. This program was started as a pilot program and instituted permanently in conjunction with an overall fare increase in 2017.



Metro Transit Bus Stop, Minneapolis, MN  
Source: Runner1928 [CC BY-SA 3.0]

Another way to address affordability is by offering many ways to pay for transit that don't disadvantage those who may not have or want to use a credit card or bank account. For example, many cities have tried or are considering going cash-free to speed up boarding time, but this creates a barrier for those who rely on cash as their primary form of currency. At a minimum, there should be a way to use cash to purchase a boarding card, but ideally to take cash at all points of entry.

## GREENING YOUR SYSTEM: SUSTAINABLE TRANSIT

One of the benefits of a strong transit system is that it can reduce carbon emissions and, consequently, health impacts most likely to burden low income residents. The one thing that cities absolutely have control over is their own fleet, and greening their own transit fleet is one way that cities can lead by example on this issue. The American Public Transportation Association notes that 46.9 percent of U.S. public transportation buses were using alternative fuels or hybrid technology as of January 2015.<sup>35</sup> Of these, the majority are hybrid-electric buses, some are biodiesel buses, and there are a small number of all-electric buses. The U.S. DOT expanded their Low or No-Emission Bus Competitive Grant Program in 2016 to provide grants to transit providers in 13 states to retrofit or replace aging diesel buses.<sup>36</sup> A few cities, such as Cleveland, OH and Philadelphia, PA are running all-electric rail cars. Because low (and no) carbon fleets use less resources and emit fewer pollutants (which disproportionately affect low-income populations and communities of color), greening your fleet is good for business, good for the environment, and good for equity.

One strategic approach to reducing emissions is to increase off-peak service. In addition to providing service for off-peak riders, as discussed previously, this has the additional potential benefit of encouraging mode shift and, consequently, a reduction in VMT and associated greenhouse gas emissions. Increasing off-peak service is considerably more cost effective per hour/mile than increasing peak service frequency or adding or changing routes.<sup>37</sup> Some cities have considered a surcharge on peak hour service, or a surcharge on the busiest locations during peak hour service, to mixed reviews.<sup>38</sup>

The principles advocated for at the beginning of and throughout this brief – a safe, clean, fast, and accessible transit system – all support the goal of converting more drivers into transit riders. This, too, is a way to decrease single occupancy trips and their resulting emissions.

### Transit Workers and Equity

There are a number of ways that municipalities can advance equity for transit workers, not just riders. In Santa Clara County, the Valley Transit Authority has partnered with the local transit worker union, Amalgamated Transit Union Local 365, to form the Joint Workforce Investment (JWI). JWI has not only established a formal apprenticeship program for creating pathways for workers interested in moving up the ranks in their field, but it is also taking concerted steps to create more opportunities for people of color and women to advance in transit fields. In this way, the county is working in tandem with a trusted industry insider (the union) to drive equity forward.<sup>34</sup>

## SUPPORTING YOUR SYSTEM: FUNDING AND FINANCING

Funding availability is a key factor in advancing major improvements or programs for transit systems. As transit's popularity increases, agencies struggle to balance operating and maintaining an existing system with the expanding the transit system to meet growing demand. Transit systems without adequate operating and capital budgets often feel they are being asked to choose between service cuts and fare increases. Either choice impacts the most vulnerable riders who are least able to pay or have few other choices – the young, old, unemployed or persons with disabilities. Creating a funding policy and program to maximize the impact of available funds is essential in providing a strong foundation for transit service.

Potential options for funding transit include:

**Federal:** At the Federal level, transit systems are eligible to receive funding through formula and discretionary grants for operating and capital programs. Formula funding is based on type of service and in proportion to population.<sup>39</sup> Population is calculated by a census-defined Metropolitan Statistical Area (MSA). Transit agencies serving communities with populations under 200,000 have formula funds passed through and distributed by state Departments of Transportation. The agencies serving these smaller urbanized areas qualify for both operating and capital funding in proportion to size of the urbanized areas. Communities with populations above 200,000 only qualify for federal capital funding through the formula grants program. MSAs with populations over this threshold but with a dispersed land use will experience greater challenges covering operating cost than MSAs with more compact and mixed land uses. Federal transit funding, both formula and competitive grant, does not cover the cost of running transit and many states step in to partially fill this gap. Federal transit funding is therefore most applicable to new developments or renovations in transit infrastructure.

**State:** States approach funding transit in a variety of ways. Many states use a portion of state gas tax revenue for funding transit. Some states, like Pennsylvania, provide significant funding to transit agencies statewide. The Port Authority of Allegheny County, the transit agency in the Pittsburgh region, gets approximately 60 percent of that agency's system budget through the state transportation fund.<sup>40</sup>

The National Council of State Legislatures released a comprehensive assessment of state transit funding in 2015.<sup>41</sup> This document offers excellent background on innovative funding strategies such as public private partnerships and special taxing districts, among others. As each municipality and state in the country have unique policies and procedures, cities and transit agencies should reference these reports when considering approaches to state transit funding assistance.

States also can provide enabling authority for cities to generate revenue through taxes and fees, and cities should work with their state representatives to get this authority granted. At the local level, state enabling authority is often required for a city to levy sales and use or other taxes to raise funds for transit.

**Local:** In addition to federal and state transit funding, there is a wide range of tools available to fund transit improvements. “The Innovative DOT: A Handbook of Policy and Practice,” produced by the State Smart Transportation Initiative and Smart Growth America<sup>42</sup>, offers best practices and guidance for a breadth of transportation challenges. The book serves as a helpful resource for developing funding opportunities available to cities and transit and offers useful discussions on successful implementation. The Innovative DOT groups funding sources and mechanisms into five primary groups:

- General income/consumption taxes are a broad-based set of taxes on residents and/or businesses via sales or property taxes. These are often approved through ballot measures and will need state authorization of taxing authority.
- Activity-based user fees collect revenue from charging users of the transportation system. Examples include fare box revenue, tolling, and carbon tax.
- Administrative fees and fines are revenues collected by public agencies. Examples include vehicle registration fees and driver’s license fees. Raleigh uses a car rental tax; some states use a portion of vehicle registration and/or license fees.<sup>43</sup>
- Value capture refers to revenue from the value created by transportation facilities, such as business assessment districts, joint development, tax increment financing, and development impact fees.<sup>44</sup>
- Public-private partnerships are contractual agreements between public and private entities for provision of transportation services or facilities such as joint development and business improvement districts.<sup>45</sup>

In addition to these revenue sources, having the authority to establish entities like Regional Transit Agencies (RTAs) provides a significant advantage for developing transit and a multimodal transportation system for the city and metro-region. RTAs at minimum create a coordinated regional planning organization with special focus on transit. RTAs sometimes have the power to levy taxes and are an important tool for funding transit system operation and expansion. For example, Denver’s Regional Transportation District gets approximately 70 percent of transit operating funds from the 1 percent sales and use tax levies.<sup>46</sup>

## STAYING COMPETITIVE: THE RISE OF TRANSPORTATION NETWORK COMPANIES (TNCs)

The impact of transportation network companies (TNCs) like Uber and Lyft is not yet fully understood. In their most common form of direct point-to-point service, they function in the same way as taxis but, by increasing the ease of arranging rides through smartphone apps, make it easier to arrange trips. Using TNCs to augment transit service by filling first and last mile gaps between transit and trip origins and destinations has gained considerable interest. Pinellas Suncoast Transit Authority, in Pinellas County, FL, launched an expanded pilot program in 2016 that provided a \$5 discount on trips made by Uber, Lyft, a taxi company, and two other transport companies between residences and the nearest transit stop.<sup>47</sup> The average cost to riders for the service is just \$1.<sup>48</sup> Cities like Tampa, FL, Philadelphia, PA, Boston, MA and Oakland, CA have all used different methods to subsidize shared-ride services to connect home and work or trips to and from transit stops.<sup>49</sup>

*No matter your city's attitude towards TNCs, they are playing an increasing role in the transportation landscape of cities, and should be considered and included in long-range transportation planning.*

Talk of TNCs providing paratransit service has been considered as a way for transit agencies to reduce costs to the system. Demand for paratransit is growing rapidly, and many agencies are ill equipped to meet the growing demand. A Brookings Institute study estimated that American transit agencies spent \$5.2 billion on paratransit in 2013, or 12.2 percent of their operating budget. But shifting paratransit trips to the TNC is challenging. Critics argue that Lyft and Uber cars lack requirements of paratransit vehicles; drivers lack the necessary specialized training; poor labor practices keep costs for these services artificially low; and the proposal in general promotes segregated transportation options for the disabled.<sup>50</sup> These pitfalls, when coupled with the nature of the free market, could undo the chief benefit of using TNCs for paratransit: its affordability.

Though many city and county governments have entered into agreements with TNCs that offer users subsidies for first and last miles, these agreements cannot restrict the TNCs' decision to raise the price on such trips when demand for them is high. Though the current cost to users for paratransit rides in Pinellas County is about \$1, this could easily increase as such trips become more popular. The Transit Authority will then be faced with the decision to either increase their subsidies or not, with the latter option leading users to incur a greater up-front cost. Should such a scenario play out, TNC agreements could drive further inequities between those who can afford the cost of paratransit and those who cannot.

Additionally, there is justifiable concern that the TNCs will absorb the transit trips that are inexpensive and relatively easy to deliver, leaving the more costly services like paratransit to the public sector. Using public funds to subsidize shared ride services may seem like a good idea right now, but it could come back to haunt cities if or when prices rise and that dependence has weakened existing transit options. A 2018 report by the New York Economic Development Corp. found that a decrease in public transit ridership and an increase in vehicle trips overall was heavily influenced by both service disruptions and an increased use of TNCs.

#### HOW CAN CITIES REDUCE FARE DISPARITIES AND IMPROVE EQUITY?

- Eliminate discounts for bulk/monthly/annual fares, which disadvantage those who can't pay in bulk
- Eliminate discounts for prepaid fares, which disadvantage those who pay in cash on the spot
- Provide a variety of ways to pay in advance and on the spot, including cash, card, and transfer
- Provide free transfers between units of transportation
- Provide discounts for low-income, senior, student, and youth riders
- Work with local agencies and non -profits to make sure that discounted passes and options are well known and accessible

A final consideration that cities must make when entering into agreements with TNCs is the implication for furthering wage and benefit inequity for transit workers. While transit workers who work for city or county transportation departments are government employees who receive city-mandated wages and benefits, Uber and Lyft drivers, for instance, are not. As private companies, TNCs do not have to abide by government employee wage and benefits standards. Uber and Lyft drivers are compensated as contractors who do not receive benefits like health insurance. Economists have begun to study the implications of the growing “gig economy” in which more and more members of the workforce are hired on a subcontracted basis with little or no social safety net benefits. Though the long-term effects of such an economy on wealth and social equity are not fully understood, early evidence suggests that the gig economy creates further social and economic divide and diminishes the average worker’s potential for building wealth.

The role that the TNCs take in public transit depends largely on how shared use services are presented, managed, and integrated into the broader transportation landscape of a community. It appears there are useful applications of the TNCs as well as programs that should be approached with caution. No matter your city’s attitude towards TNCs, they are playing an increasing role in the transportation landscape of cities, and should be considered and included in long-range transportation planning.

## SUMMARY

Today, transit is facing difficult challenges: aging infrastructure, declining ridership, and competition from technology and new modes of transportation. Despite these challenges, transit is more essential than ever in meeting the mobility needs of urban and suburban residents, and crucial to a city’s equity, climate and land use goals. The issues and strategies discussed in this brief describe a path towards an efficient, effective and equitable transit system that can have enormous co-benefits related to environmental and economic sustainability. To learn more, please explore our website and the resources below, and connect with us directly or via social media.

## RESOURCES

The [National Association of City Transportation Officials’](#) mission is to “build cities as places for people with safe, sustainable, accessible and equitable transportation choices that support a strong economy and vibrant quality of life.”

The [National Transit Database](#) is maintained by the Federal Department of Transportation and keeps current records such as transit provider data; national transit summaries and trends; monthly ridership data; safety data; and more.

The [State Smart Transportation Initiative](#) promotes transportation practices that advance environmental sustainability and equitable economic development, while maintaining high standards of governmental efficiency and transparency. The Mayors Innovation Project and SSTI are both projects of COWS, and have collaborated on a number of publications, including [Urban Parking and Modernizing Mitigation: A Demand-Centered Approach to Reducing Car Travel](#).

[TransitCenter](#) provides grants, training, technical assistance, research and convenings of transit advocates and decision makers. Two recent publications may be of particular interest to local elected officials and local government staff: [All Transportation is Local](#) (March 2017) and [Inclusive Transit](#) (July 2018).

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## About us

The Mayors Innovation Project is a learning network among American mayors committed to "high road" policy and governance: shared prosperity, environmental sustainability, and efficient democratic government. We are a project of COWS (Center on Wisconsin Strategy). This work is generously supported by the Surdna Foundation. We can be contacted at:

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