GENFARE
Achieving Equitable Mobility

The North American transit industry is at a crossroads as it attempts to adapt to the "new normal" in the wake of the Covid-19 pandemic, which has reset expectations for where we work, how we travel, and where we live. Transit providers are struggling to understand the shifting needs of riders with new work habits and travel patterns while grappling with continuing challenges exacerbated by the crisis such as dwindling ridership and inadequate funding. Among the most urgent demands are renewed calls for equitable mobility – that is, fair access to transportation resources without regard to race, ethnicity, or socioeconomic status.

At the most basic level, the pandemic has demonstrated who transit's core constituents are – the transit-dependent essential workers who risked life-threatening illness to travel each day to jobs that were critical to keeping society functioning but couldn't be done remotely. A disproportionately large fraction of those workers – health care personnel, retail clerks, delivery drivers, and yes, transit workers among many others – were Black, indigenous, and people of color. More broadly, the pandemic, coupled with the social reckoning given new urgency by the Black Lives Matter movement, has shone a clarifying light on the persistent structural inequalities faced by minorities, whether in access to health care, dealings with the police, or the ability to move safely through the community.

Research has found that 38% of transit riders have low incomes and are disproportionately burdened by the cost of transportation.[1] In addition, 14% of Black households and 12% of Hispanic households are unbanked[2], and 20% of Black adults and 21% of Hispanic adults do not have smart phones[3]. Bank accounts, smart phones, or both are typically required for the fare discounts and convenient payment options available to choice riders.

All of that has led to renewed calls for equitable mobility, not only from civil rights advocates but also from within the transit industry. The American Public Transportation Association, for example, has created the APTA Racial Equity Action Plan "to create transformational change within the transit industry and to promote public transportation services that ensure racial equity, fair access to opportunities, and mobility justice, particularly in underserved communities."[4] Many transit agencies have made similar commitments.

Genfare, the leading maker of U.S. bus fare collection solutions, supports the renewed push for equitable mobility. The question is how best to achieve it. In a time when many in transit feel the need to do something – anything – and a variety of well-intended measures are being proposed, a thoughtful evaluation of options and what has and has not worked in the past (and why) is in order.

In this white paper, Genfare offers its views on the most effective ways to achieve equitable mobility. In short: the best approach is better service, not cheaper bad service. An important prerequisite for better service is a fare collection system providing advanced capabilities at a reasonable price, enabling the transit agency to understand its community and tailor solutions to meet the needs of everyone in it, with particular attention to those with limited resources. Two questions are addressed:

- *Should transit be free?*
- *What is the best way to achieve more equitable mobility?*

Should transit be free?

The notion that transit should be a free public service has been around for a long time but gained prominence during the pandemic, when many agencies eliminated fare collection to ensure social distancing between riders and transit workers. The practice was meant to be temporary, but some advocates believe it should be made permanent. "With some agencies predicting lower ridership levels until 2024, a proposal is bubbling up aimed at serving the low-income passengers relying most heavily on public transportation during the pandemic," a 2021 Washington Post piece reported. "Make transit free."[5]

The idea has superficial appeal. The pandemic has shown transit is an essential public service. Transit-dependent riders earn less than choice riders and spend more of their incomes on transportation. Highway construction is fully funded by the government; why shouldn't transit be?

Not everyone is persuaded. A Slate article entitled "The Problem with Free Transit" quotes Portland, Oregon transit planner Jarrett Walker:

> I've heard people describe the free fare movement as being a movement for free, terrible service, and that's how the trade-off ends up working if you expect this to happen inside the budget of an impoverished American transit agency.[6]

Genfare concurs with this view and respectfully suggests some historical perspective is in order. Free transit has been tried multiple times by a variety of agencies over the past five decades. But a federally-funded study by the National Center for Transportation Research has shown that, for larger agencies, the problems arising from elimination of fares outweigh the benefits:

> The larger transit systems that offered free fares suffered dramatic rates of vandalism, graffiti, and rowdiness due to younger passengers who could ride the system for free, causing numerous negative consequences. Vehicle maintenance and security costs escalated due to the need for repairs associated with abuse from passengers. The greater presence of vagrants on board buses also discouraged choice riders and caused increased complaints from long-time passengers. Furthermore, due to inadequate planning and scheduling for the additional ridership, the transit systems became overcrowded and uncomfortable for riders. Additional buses needed to be placed in service to carry the heavier loads that occurred on a number of routes, adding to the agencies' operating costs. However, the crowded and rowdy conditions on too many of the buses discouraged many longtime riders from using the system as frequently as they did prior to the implementation of free fares.[7]

Among the examples cited in the study:

- A year-long demonstration in the late 1970s by Mercer Metro of Trenton, New Jersey (now part of NJ Transit) during which no fare was charged during off-peak hours resulted in a 25% loss in revenue plus higher operating costs due to the need for additional service to meet increased demand. "Schedule adherence [due to a higher volume of riders] was so poor that drivers were not able to take allotted breaks or leave their buses at the end of the line," the study noted.[8]

- When Broward County Transit in Florida allowed all passengers under the age of 18 to ride free in the late 1980s, "system managers described conditions on many routes to be chaotic. Within six months, at the urging of bus operators, the free fare program for youth was discontinued in favor of allowing them to ride for half-fare."[9]

- In a systemwide fare-free experiment running from October 1989 to December 1990, Capital Metro of Austin, Texas, experienced higher operating costs due to property damage and subsequent hiring of off-duty police to provide security on buses. An increase in problem riders, including youthful joyriders, inebriated adults, and homeless people, drove away regular bus commuters. Physical assaults tripled in the first three months, from 44 to 120 incidents.[10] Agency officials claimed bus drivers came close to "insurrection," with 215 (75%) petitioning for discontinuation of the program due to unruly patrons.[11]

A 2012 study by the Transportation Research Board (TRB) was similarly downbeat on the prospects for fare-free transit at larger agencies:

> Though a small number of public transit systems in larger urban areas have experimented with some version of fare-free service (including Denver, Colorado, in 1979, and Austin, Texas, in 1990), and a few others have carefully analyzed the potential impacts of implementing fare-free service more recently (including Portland, Oregon, in 1999, and San Francisco, California, in 2008), no public transit system in the United States with more than 100 buses currently offers fare-free service. Finding the source of funds to replace their substantial farebox revenues has proven too difficult, particularly during times of tight budgets.[12]

This is not to say free transit never makes sense. The TRB study found 39 U.S. transit agencies were then providing fare-free service. These agencies generally fell into one of three categories:

(1) small urban areas with relatively modest ridership and large rural areas with relatively low ridership, (2) resort communities that carry significant numbers of passengers because of populations that swell inordinately during tourist seasons, and (3) university-dominated communities where the clear majority of passengers in the service area are college students, faculty, and staff.[13]

Clearly there are special cases where optimizing fare policy to meet local needs sometimes means charging no fare at all. However, few agencies fall into that category.

Rampant problems with homelessness on transit during the pandemic, when many agencies suspended fare collection, suggest what would happen if fare-free policies were to become standard practice at major agencies now. According to a 2020 survey by UCLA researchers, 62% of agencies eliminating fares, and 88% of those suspending fare enforcement, reported an increase in homeless riders, and 86% said they had received complaints about such riders. "Fare suspension … provides an admittedly imperfect test for what transit use and homelessness on transit would look like if agencies eliminate fares permanently or stop fare checks," the researchers wrote.[14]

Others put the matter more bluntly:

"It's a terrible idea. It will chase away a lot of paying patrons if it hasn't already," said Dorothy Moses Schulz, an emerita professor at John Jay College of Criminal Justice in New York. Schulz, a former police captain at the MTA Metro-North Railroad … said letting passengers board for free would encourage more people experiencing homelessness to ride back and forth on trains and buses all day, driving away regular customers. It also could present added security threats, attracting criminals or people who are drunk or disorderly, particularly in some of the larger systems, she added."[15]

Genfare believes fare payment is by no means the impediment to transit use some portray it to be. On the contrary, it serves several important functions:

It provides valuable ridership information.

A modern fare collection system using electronic fare media generates detailed ridership information of great value for service planning. The data can be analyzed to determine not merely how many riders use a particular route but where and when they boarded, what routes they transferred to, and – by pairing round trips – where they got off. The transactional database can be analyzed to determine travel patterns, preferred fare media, frequency and other characteristics of use, and shifts over time.

It generates essential revenue.

For larger agencies, fare collection generates a substantial percentage of the budget. For example, in 2019, the last year before the pandemic, the Chicago Transit Authority generated $654 million in operating revenue, primarily from fares – about 34% of operating expenses. This money cannot be easily replaced. Given the scale and uncertainty of federal funding that would be needed to make transit free nationwide, it seems likely eliminating fares would necessitate a reduction in service.

It serves a gatekeeping function.

Charging even a nominal fare significantly reduces difficulties arising from problem passengers. "The institution of a $.25 fare eliminated the unwanted passengers and resulted in a 90 percent reduction in vandalism," the director of an agency offering a shuttle bus service in Miami Beach reported.[16]

Genfare believes that when larger transit agencies weigh the advantages of fare collection against the claimed benefits of fare-free operation, they will choose to pursue transit equity within their existing revenue framework. An analysis by the Houston Metropolitan Transit Authority, for example, found that elimination of fares would increase costs by as much as $171 million annually, making it unlikely the agency would implement such a policy.[17]

What is the best way to achieve Equitable Mobility?

Genfare supports equitable mobility but does not believe eliminating fares is a practical way to achieve this goal for most agencies. Jeffrey Tumlin, director of transportation for the San Francisco Municipal Transportation Agency, put the matter succinctly when he tweeted:

> If we have $X to improve transit, are our goals better served by eliminating fares or improving service? ... If you want to spend public $ to buy down fares, target those for whom fares are an obstacle.[18]

Genfare endorses this approach and believes the surest path to equitable mobility is to improve service while optimizing fares to meet specific community needs – for example, through fare discounts and related measures aimed at essential workers or low-income riders. Surveys show transit riders place a much higher value on service – including on-time performance, service frequency, speed, etc. – than on price.[19] This is as true of transit-dependent riders as it is of choice riders. When MIT researchers asked low-income riders in Boston to indicate the major problems with local public transportation, they cited reliability almost twice as often as affordability, which was tied with service frequency on the list of concerns.[20]

A modern fare collection system provides transit agencies with the tools they need to achieve equitable mobility while still generating essential revenue. It does this in three ways:

It puts the sophisticated capabilities needed for a targeted approach within the reach of every agency. Affordable cloud-hosted fare technology can be scaled to the needs of any agency regardless of the size of its ridership or budget. Unlike the old days, when vendors installed fare collection hardware and agencies were left on their own to operate it, today's fare-collection-as-a-service approach means vendors and agencies are active partners throughout the system's service life. Enhanced capabilities are continually introduced in response to evolving technology and market demand and made available to participating agencies.

It enables agencies to understand their communities. The detailed data recorded for every fare transaction and event, combined with the robust analytical and data visualization tools provided by modern systems, enables agencies to gain a much better understanding of their customers, an essential step in developing responsive solutions.

It lets agencies accept any payment medium riders have in their pockets, whether it's cash, a fare card or credit card, a mobile wallet, or a "virtual ticket" displayed on a smart phone. Coupled with affordable technology and detailed knowledge of the communities they serve, this means transit providers can deliver fare solutions tailored to the needs of all of their riders, including those with limited resources.

Here are some of the ways fare collection technology can promote equitable mobility while supporting other important transit goals:

- **Fare optimization for your community.** Modern fare processing platforms enable agencies to differentiate riders by any desired criterion and craft fare solutions adapted to varying needs. For example, eligible low-income riders can be provided with a personalized fare card at little or no charge that they can reload periodically with targeted reduced-fare products using cash – or, if the agency chooses, they can ride for free. To avoid requiring applicants to travel to a distant location, agency staff can hold pop-up enrollment events at community centers, public libraries, and the like using portable card production equipment.

- **Onboard acceptance of cash,** the one fare medium readily available to all, is of continuing importance. Some transit riders – many of them minorities protected under Title VI of the Civil Rights Act of 1964 – lack the bank accounts and/or smart phones needed for electronic payment. For the foreseeable future, transit agencies will need to continue to accept cash.

- **Offboard cash acceptance** enables essential workers to add value to their fare cards using cash at a ticket vending machine or by tendering it to a ticket office clerk or retail sales agent equipped with a point of sale terminal. A partnership with a third-party provider that sells agency-branded fare cards and other preloaded cards at in-store kiosks provides another way for riders to pay with cash. Research has shown that fare solutions offering riders both off- and onboard cash payment options net the most revenue – when cash payment is limited, the loss of cash fares outweighs any savings.[21]

- **Fare capping,** in which fare card users are automatically granted a pass when they accumulate enough single rides within a specified time, is well suited to essential workers who ride regularly but can't afford the cash outlay for a weekly or monthly pass. Fare capping lets such riders receive the same discounts as choice riders.

- **Low-cost media for social service organizations.** Transit agencies have long sold or given low-cost fare cards to social service agencies for distribution to their clients. Nano cards, the simplest and least expensive type of smart card, enable agencies to continue this worthwhile practice using modern technology. With the aid of sophisticated back office systems, transit operators can provide social service agencies with an online portal to make it easier for them to deliver low-cost media efficiently.

- **Contactless payment cards for the unbanked.** Open payment technology now being rolled out by Genfare and other vendors enables fare equipment to read "tap and go" credit and debit cards, which are replacing older bank cards that rely on a magnetic stripe. Contactless cards configured as reloadable gift cards are expected to be widely available through retailers, where unbanked riders can buy and recharge them using cash. In addition, the cards are likely to be adopted by public agencies distributing unemployment or public assistance payments. That means unbanked riders will be able to pay for transit using a card just as choice riders do.

- **Mobility as a service (MaaS).** A concept still in its infancy, MaaS would offer transportation on demand using mobile apps linked to alternative mobility providers such as bike-, scooter-, and ride-sharing services. MaaS holds great promise as a cost-effective way to enable urban workers to reach jobs in suburban areas with sparse bus service. The vision is that riders will be able to arrange multimodal journeys involving transit plus an alternative transportation provider in a single transaction using smart phones. Such phones are already available for free to qualifying riders through the federal government's Affordable Connectivity Program.

- **Employer engagement.** The transit benefit, in which businesses enable their employees to use transit at reduced cost, is of great value to essential workers, who can save in two ways – their transit usage is paid for using pre-tax dollars and in addition may be subsidized by their employer. The transit benefit also helps businesses, who can use it to help recruit and retain essential workers in what are often high-turnover jobs.
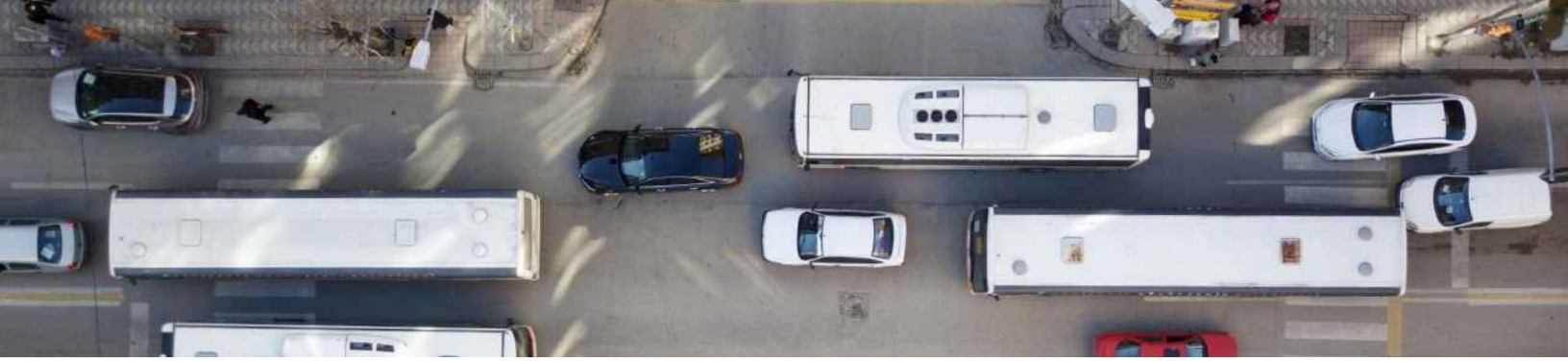
Conclusion

Genfare believes the most effective way to achieve equitable mobility isn't to eliminate fares but rather to harness advanced fare collection technology to improve service for essential workers and low-income riders – and, in the process, for everybody else. Observation suggests most transit operators have come to the same conclusion. Experiments in which fares are eliminated are greatly outnumbered by initiatives aimed specifically at riders for whom fares are a significant burden.[22]

Today's fare processing solutions let an agency do three things to promote equitable mobility: first, obtain advanced technology at an affordable price; second, use the data collected by that technology to understand its community; and finally, leverage this insight to tailor fare solutions that will meet the needs of all its customers, including essential workers and low-income riders.

The stresses of the pandemic notwithstanding, the transit industry must not lose sight of its overall mission. Rising gas prices due to war and inflation mean transit will be increasingly important to a large segment of the public. Reducing automobile use remains an essential strategy in the effort to combat climate change. Transit must accommodate a wide range of riders if it is to address these larger societal needs. Decision makers must also recognize that in a time of political polarization and uncertain federal funding, fares provide a reliable local revenue stream.

For all these reasons, Genfare believes the pursuit of equitable mobility must be part of an integrated strategy that takes the needs of all patrons into account, including transit-dependent and choice riders. A flexible fare payment system that can meet a wide variety of needs is an important part of this approach. Genfare has spent more than four decades developing such systems and looks forward to continuing participation in the industry-wide conversation about how best to serve all riders no matter what their socioeconomic status. Better service for everyone is the surest way to achieve the goal of equitable mobility – a world in which all can move forward, leaving no one behind.

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