

A Post-2020 Look at Transportation: A more sustainable, equitable, and resilient future

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The World Health Organization declared COVID-19 a global pandemic in March 2020, upending lives and livelihoods everywhere and especially in cities that served as frontlines of the crisis. Transportation is one area where preferences have shifted dramatically as people spend more time outdoors exploring their cities. Furthermore, the pandemic has highlighted pre-existing transit inequalities and the vulnerability of car dependency in the United States.

As public transit shut down in 2020, lower-income individuals were disproportionately affected. According to the National Equity Atlas data, in 2017 only 6 percent of white households did not have access to a car, compared to 19 percent of black households.¹ Those dependent on buses and trains were unable to commute to work because they didn't have access to a car or to alternate means of transportation. With government enforced lockdowns, travel demand across all modes dropped sharply. In a matter of weeks, road traffic declined approximately 50% in the United States.²

At the same time, lockdowns resulted in those who could exploring new ways of commuting. Bike sales skyrocketed and more people began to take advantage of scenic routes and bike lanes. Many cities temporarily shut down streets, naturally creating pedestrian friendly areas and encouraging individuals to find new ways of getting around — whether walking, biking, or other micro-mobility options. The year 2020 resulted in a dramatic shift in American transportation preferences — a shift that serves as a valuable lesson for building more sustainable, equitable transportation infrastructure models in the United States. A new momentum for car-free transportation emerged and it is an opportunity we cannot let go to waste. Moving forward, this means investing in transportation that is more inclusive and inherently sustainable. Options would include funding transportation infrastructure that expands public transit as well as improves walking, biking, and other micro-mobility options.

Inequity and other Public Transit Challenges

In the first quarter of 2020, transit ridership was on the rise, but took a big hit with the spread of novel coronavirus. According to current estimates, ridership declined by 53.3 percent across the nation according to the American Public Transportation Association.³ Despite such a decline, US cities proved flexible with reshaping public transit by catering to the needs of

1 “Car Access: National Equity Atlas,” Car Access | National Equity Atlas, <https://nationalequityatlas.org/indicators/Car-access#/?breakdown=2>.

2 Lucy Budd and Stephen Ison, “Responsible Transport: A Post-COVID Agenda for Transport Policy and Practice,” Transportation Research Interdisciplinary Perspectives, <https://doi.org/10.1016/j.trip.2020.100151>.

3 Skip Descant, “After a Devastating Year, Transit Is Adapting to the Future,” GovTech, March 23, 2021, <https://www.govtech.com/fs/after-a-devastating-year-transit-is-adapting-to-the-future.html>.



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communities. For example, some cities deployed new buses to serve as mobile Wi-Fi spots. This approach to transit results in a more sustainable, equitable, and convenient transportation model combining funding from both private and public sources, and making public transit competitive with single-occupancy vehicles. It will take time for transit to ramp back up to pre-pandemic scale. This in turn, provides a window of opportunity to create more flexible, less rush-hour focused, and equitable transportation. Therefore, Joe Biden's allocation of \$85 billion towards public transit is a necessity. Even today, 45 percent of Americans do not have access to public transit, despite at least one conventional transportation mode-- railway systems, bus lanes, and subway systems--being present in communities across the US.⁴ To address problems of aging infrastructure, decades of underfunding, and lack of consistent maintenance, a backlog of \$176 billion in transit investment is estimated, which is projected to grow to more than \$250 billion by 2029.⁵

Public transit envisioned by the Biden administration is supposed to accommodate specific community needs with overarching goals to "improve accessibility, mitigate traffic congestion, enhance air and water quality, conserve fuel, reduce carbon emissions, encourage a more equitable transportation system, help sustain economic development, and promote more sustainable communities."⁶ There are many more benefits to investing in public transit: assisting elderly and disabled individuals with mobility, making work and other service accessibility to low-income individuals and those without access to cars, as well as providing an alternative to car use, therefore, reducing congestion and travel time.

Recently, transit agencies have also started entering partnerships with mobility providers, such as transportation network companies and bike or scooter share, generally known as Mobility on Demand (MOD), have expanded a conventional definition of public transit. Over the last decade, the number of micro-mobility trips, bike or scooter share options, rose from roughly 320,000 to nearly 1 billion.⁷

The Road beyond Covid

With millions of Americans working from home, roads have shifted from being a means of commuting to and from work to spaces for people and community. Long commutes to work have become short grocery store runs. In the long lists of changes that have occurred due to COVID-19, how people move around their towns and cities has been one of the most notable shifts — and one that is meant to stay.

The automobile has become an important part of American culture but has also created many

4 "Transit, ASCE's 2021 Infrastructure Report Card," American Society of Civil Engineers, March 25, 2021. <https://infrastructurereportcard.org/cat-item/transit/#:~:text=Public%20transit%20is%20essential%20to,have%20no%20access%20to%20transit>.

5 Ibid.

6 "Policy Statement 494 - Public Transportation," American Society of Civil Engineers, July 11, 2020, <https://www.asce.org/issues-and-advocacy/public-policy/policy-statement-494---public-transportation/>.

7 "Transit, ASCE's 2021 Infrastructure Report Card," American Society of Civil Engineers, March 25, 2021, <https://infrastructurereportcard.org/cat-item/transit/#:~:text=Public%20transit%20is%20essential%20to,have%20no%20access%20to%20transit>.



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negative externalities regarding the safety of both our people and environment. During the pandemic, although there might have been fewer cars on the roads, emptier streets didn't equate to a safer experience for pedestrians. A report by the Governor's Highway Safety Association (GHSA) on driving fatalities found that in the first six months of 2020, pedestrian fatalities per billion vehicle miles traveled increased by 20 percent.⁸ The same GHSA report indicated that drivers struck and killed more people of color--further reinforcing the need for racial equity to be the centerpiece of comprehensive city and street planning.

A study by the National Association of City Transportation Officials shows that black people are 82 percent more likely than their white, non-Hispanic, counterparts to be in a lethal car accident.⁹ These statistics underscore the need for safety of the people and environment to be a core to the U.S. transportation system. The Biden administration's "American Jobs Plan" plans to do just that.

Cities must prioritize city planning to be pedestrian-friendly to not only encourage more green modes of travel, but also foster racial equity. The COVID pandemic has introduced more people to the joys of walking and biking -- meaning that more people likely will be out on sidewalks, crosswalks, and roads. Federal transportation funding needs to be allocated to our streets to meet this newly found demand.

Slow Street and Complete Street programs are designed to limit traffic on certain residential streets and allow them to be used as a shared space for people traveling by foot or by other micro-mobility options (that includes biking, scootering, skating, etc.). On Slow Streets, signage and barricades are placed to minimize vehicle traffic, prioritizing pedestrians.¹⁰ Complete Streets are streets made for everyone and are designed to prioritize the safety, comfort, and access for all people who use the streets. Complete Streets have no set design and respond to community needs and context and may include wide sidewalks, bike lanes, bus lanes, and accessible public transportation stops.¹¹

These streets are especially the underprivileged whose needs have systematically not been met through traditional transportation planning approaches--ones that design around cars, not people. At their core, both Slow Streets and Complete Streets programs are about re-evaluating our streets and designating more land to pedestrian and micro-mobility travel than cars. These programs are critical infrastructure that garner support from a wide range of neighborhood demographics and empower the previously underserved on our streets.

With more street focused programs, demand for transportation alternatives such as biking can increase, and we have already seen it increasing. During periods of lockdown, cycling increased by 16 percent across the US, with higher growth on the weekends (+29%) than on weekdays (+10%). This smaller increase during the weekdays is most likely due to the overall decline in all modes of travel due to lockdowns and travel restrictions.¹² Nonetheless, clearly the demand for cycling has increased and evidently requires an increase in government measures and robust policies to accommodate and encourage this demand. In many instances, expansion and improvement of existing cycling infrastructure have been already included in some city

8 Fran Kritz, "Despite Fewer Cars on the Road, Pedestrian Fatalities Are Up During COVID," Verywell Health, April 12, 2021, <https://www.verywellhealth.com/pedestrian-fatalities-rise-covid-driving-5176250>.

9 Social Ink, "Modernizing Federal Standards: Making the MUTCD Work for Cities," National Association of City Transportation Officials, May 13, 2021, <https://nacto.org/program/modernizing-federal-standards/>.

10 Ben Barnett, "Slow Streets Program," San Francisco Municipal Transportation Agency, May 12, 2021, <https://www.sfmta.com/projects/slow-streets-program#:~:text=On%20these%20Slow%20Streets%2C%20signage,during%20the%20COVID%2D19%20pandemic>.

11 "What Are Complete Streets?" Smart Growth America, December 2, 2020. <https://smartgrowthamerica.org/program/national-complete-streets-coalition/publications/what-are-complete-streets/>.

12 Ralph Buehler and John Pucher, "COVID-19 Impacts on Cycling, 2019–2020," *Transport Reviews*, 2021, <https://doi.org/10.1080/01441647.2021.1914900>.

plans. COVID-19, however, accelerated that implementation due to increased public demand and change in travel preferences.

Many cities already implemented street programs to maintain the cycling and pedestrian momentum that started during the pandemic and create safe spaces for walking and bicycling. New York City exploited the crisis to completely reimagine the city's streets. In March 2021, Mayor Bill de Blasio announced that the Department of Transportation (DOT) would launch the nation's largest Open Streets program — a program dedicated to designating roadway space to pedestrians and cyclists. Last March, at the start of the pandemic, New York City briefly experimented with a small car-free pilot program on a handful of blocks in four of the five boroughs. The program was cut short in April 2020 due to police staff shortages. If proper investments in these street infrastructure models is made, police staff wouldn't be necessary and the streets would be self-sufficient, safely functioning.

Similarly, in Oakland, California, the new "Slow Streets" program made 74 miles of neighborhood streets off-limits to cars and converted them to safe spaces for pedestrians. The city's extensive plan was to deal with the isolation that came with the coronavirus by creating more outdoor space and safer corridors for essential travel by foot, bike or other micro-mobility options.

Infrastructure Bill Provides Hope

Studies have shown that proper investments in street programs and public transit can help American road users safely navigate and reclaim their streets. A growing number of transportation equity advocates have been pushing for President Biden to include a greater focus on Vision Zero policies in the United States.

During COVID-19, this movement ramped up to provide more socially distanced essential commute and now that movement has created a new demand. People want more agency over their streets. They want to feel safe enough to travel around their cities by foot, bicycle, scooter, skateboard, or any other form of micro-mobility.

On March 31, President Biden introduced the 'American Jobs Plan,' calling it "an investment in America," and an aim to create millions of jobs, update infrastructure, and make the US a more competitive nation on a global scale.¹³ The US was ranked 13th for the overall infrastructure quality rating, however, despite being high on the list, decades of underinvestment have led to aging, crumbling infrastructure across the nation.¹⁴ The Biden administration is planning to invest \$621 billion into transportation infrastructure. Biden is aiming to allocate \$80 billion towards updating Amtrak's railway system, \$85 billion towards public transit funding, and \$115 billion to modernize bridges, highways, roads, and streets in most need of repair.¹⁵ Biden's "Build Back Better" plan is looking to invest into "high-quality, zero-emissions" public transit options as well as infrastructure for pedestrians and cyclists in every city with more than 100,000 residents.¹⁶

When we discuss the problems associated with cars and transportation, we tend to think about accidents, traffic jams, or air pollution. Less frequently do we consider how much

13 "FACT SHEET: The American Jobs Plan," The White House, May 4, 2021, <https://www.whitehouse.gov/briefing-room/state-ments-releases/2021/03/31/fact-sheet-the-american-jobs-plan/>.

14 Ian Duncan, "Here's How U.S. Infrastructure Compares to the Rest of the World," Washington Post, April 30, 2021, <https://www.washingtonpost.com/transportation/2021/04/30/us-infrastructure-ranking/>.

15 Javier Zarracina, Joey Garrison, and George Petras, "Joe Biden Wants to Spend \$2 Trillion on Infrastructure and Jobs. These 4 Charts Show Where the Money Would Go," USA Today, April 6, 2021, <https://www.usatoday.com/in-depth/news/politics/2021/04/01/2-trillion-infrastructure-bill-charts-detail-bidens-plan/4820227001/>.

16 "The Biden Plan to Build a Modern, Sustainable Infrastructure and an Equitable Clean Energy Future," Joe Biden for President, August 5, 2020, <https://joebiden.com/clean-energy/>.

sheer *space* cars take up in American cities. Most cities dedicate about 50-60 percent of their land to vehicles— a rather inefficient and wasteful plan. Due to the pandemic, some American cities experimented with adjusting that balance and the results were successful.¹⁷ This past year, transportation preferences shift drastically as people started spending more time exploring their cities outdoors. The pandemic created a new momentum for car-free transportation, and this

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provides an unprecedented opportunity for positive change. This would mean investing in transportation that is more inclusive and inherently sustainable. Options would include investments in transportation infrastructure that expand public transit and improve walking, biking, and micro-mobility options. The infrastructure bill reinforces that shift from investments of bridges, highways, and roads to streets that foster community and environmental well-being.

Instead of investing into expansion of current highways and roads, the government should focus on investing in public transit and pedestrian-friendly infrastructure by leveraging funding provided through the Biden administration’s proposed infrastructure legislation, which looks headed for passage by the Senate.

Historically, car-centric planning has maximized road space at the expense of pedestrian facilities. Now is the right time for federal transportation infrastructure planning to shift its priorities towards forward-looking transportation investments aimed at serving people and the environment — measures that would actively reduce traffic, pollution, and promote equitable communities. This vision cannot be met until transportation policies begin to prioritize healthy, sustainable options like walking, cycling, and public transit.

While the United States slowly returns to more normal life it’s the perfect time to create a better integrated transportation system that accounts for specific needs of the communities it serves. Abolishing car-centric transportation planning better serves all transportation users by creating a more integrated, multimodal transportation system with choices and accessibility for all. The government needs to take the lead on shifting toward more reliable, equitable, and sustainable infrastructure.

¹⁷ Jack Stewart, “Cities Are Experimenting with More Space for People, Less Room for Cars,” Marketplace, May 20, 2020, <https://www.marketplace.org/2020/05/19/cities-are-experimenting-with-more-space-for-people-less-room-for-cars/>.