

Legacy. Innovation. Impact.

A Collection of Essays and Ideas

*From Eno's Centennial Scholars, winners of
the Martin Wachs Memorial Essay Contest*

Acknowledgements

The Eno Center for Transportation would like to thank the following individuals for contributing their expertise and time as judges.

Professional Judging Panel



Rhonda Allen
Chief Customer
Experience
Officer, MARTA



Mortimer Downey
Former United States
Deputy Secretary
of Transportation



Sogand Karbalaieali
Senior
Transportation
Engineer, ATCS, P.L.C.



Renee Autumn Ray
Senior Director of Global
Industry Strategy,
Hayden AI



Adie Tomer
Senior Fellow,
Brookings Metropolitan
Infrastructure Initiative

Student Judging Panel



Jerry Premo
Founder,
Premo
Partnerships



Billy Terry
Director, National
Transit Institute (NTI)



Emily Feenstra
Managing Director,
Government Relations
and Infrastructure
Initiatives, ASCE



Geraldine Knatz
Professor of the
Practice of Policy
and Engineering,
USC Price



**Stephanie
Amoaning-Yankson**
Consultant, AECOM

Introduction

Coming Out of the Crisis: A Look Past the Pandemic

The pandemic isn't quite behind us, but every day the contours of the new normal take shape. The pace of transformation in every mode of transportation, already undergoing massive changes, has only increased during the time of COVID.

As the nation gets moving again, the time is now to implement new policies, innovations, and best practices to prepare for a better future.

In honor of our Centennial and in recognition of the transformative times we live in, Eno launched the Martin Wachs Memorial Essay Contest to challenge transportation professionals and students to share their ideas. We asked them to convince us that their idea was the best way forward toward our vision of a transportation system that fosters economic vitality, advances social equity, and improves the quality of life for all.

The essays submitted focused on a diverse array of topics such as equity in aviation and cutting carbon emissions in our freight system. Professional and students from across the country shared ideas big and small and our judging panels read them all. Together, they selected the winning 11 Centennial Scholars featured in this anthology whose essays present a diverse and compelling compendium of ideas for the new normal.

Dedication

In Memory of Martin Wachs

The transportation world lost one of its most distinguished and impactful voices with the passing of Martin Wachs. Martin was a transportation engineering and planning professor/practitioner and a close colleague of ours at Eno. In 2017, he was the first-ever recipient of the Eno Thought Leader Award which acknowledges individuals that have a demonstrated body of rigorous, timely, and impactful work. Everyone who knew him agreed there was no one better suited for the award.



Thank you, Marty, for all that you taught us.

With Special Thanks to...

Centennial Steering Committee

Co-Chairs:

Lillian Borrone

Diane Woodend Jones

Asha Weinstein Agrawal

Avital Barnea

Susan Binder

James Burnley

Emil Frankel

Patricia Hendren

Joung Lee

Linda O'Bryant

Jerry Premo

Joshua Schank

Robert Skinner

Stephen Van Beek

Martin Wachs

Martin Whitmer

Tay Yoshitani

Centennial Honorary Committee

David Bragdon

Nicholas Calio

Jane Chmielinski

Chris Connor

Grace Crunican

Larry Dahms

Thomas Deen

Mortimer Downey

Geraldine Knatz

Damian Kulash

Ray LaHood

William Millar

Debra Miller

Norman Mineta

Neil Pederson

Federico Peña

Mary Peters

Robert Prince

Leslie Richards

Janette Sadik-Khan

Frederick Salvucci

Paul Skoutelas

Rodney Slater

Peter Stangl

Beverly Swaim-Staley

Jim Tymon

Traci Ulberg

Phillip Washington

Table of Contents

Student Category

First Place, Xavier Harmony

A New Bus Priority.....6

Second Place, Hayden Anderson

Were COVID Pedestrian Streets Good for Business? Interviews Reveal Pandemic Prosperity.....9

Third Place, Shriya Karam

Runway to Recovery During COVID-19: Aviation Accessibility Through an Equity Lens 13

Honorable Mention, Manu Agni

How Pedestrian! Re-Imagining the Mobility Planning Process..... 17

Honorable Mention, Simon Tan

Roll Out the Red Carpet for Transit20

Honorable Mention, Katherine Turner

Grappling with History – Improved Awareness of Structural Inequality and Health Outcomes in the Transportation Sector24

Professionals Category

First Place, Andrea Hamre

Racial Equity in Traffic Enforcement27

Second Place, Steven Higashide

A Mobility Guarantee for Rural America.....30

Third Place, Jonathan Howard

Sidewalks are Public Transportation34

Honorable Mention, Amy Johnson

Are you Going Virtual with Public Engagement? Consider These Three Principles First.....37

Honorable Mention, Anna Zivarts

Hire People Who Can't Drive: We are Experts on the Transportation System of the Future 40



A New Bus Priority *by Xavier Harmony*

While essential workers have been relying on buses to continue braving the pandemic, transit systems making brutal budget decisions have cut the very services they need in favor of rail. As we come out of the pandemic and rebuild our transit systems, it's time we recognize the importance of the bus to essential transit riders and finally prioritize the bus.

Over the last 18 months, the COVID pandemic has caused transit service ridership to drop precipitously. However, as many transit systems discovered, not all transit is created equal. While ridership was dropping across the country, it dropped faster and harder for rail than for the bus. The Los Angeles County Metropolitan Transportation Authority (LA Metro) saw [bus ridership drop 65 percent while rail ridership fell 75 percent](#). The Washington Metropolitan Area Transit Authority (WMATA) saw an [average drop of 86 percent for rail and 55 percent for bus](#). And the Metropolitan Atlanta Rapid Transit Authority's (MARTA) [bus ridership fell 45 percent to rail's 59 percent](#). In response to the loss of funds from plummeting ridership, and concerns over the safety of transit operators, transit agencies started cutting services. However, these service cuts didn't reflect the changes in ridership. While LA Metro saw a sharper drop in rail ridership than bus ridership, twice the bus service was cut: "[the cuts are the equivalent of a 29 percent annual reduction in bus service and a 14 percent reduction in rail service](#)." Atlantans saw a similar trend where a [30 percent cut to bus service](#) coincided with just a [14 percent reduction in rail service](#). Clearly, transit agencies were not making service decisions that reflected the needs of their essential riders.

Mismatches between transit decision-making and ridership needs is not a new issue; research has illuminated the disparity between rail and bus for decades. In 1999, [Garrett and Taylor](#) described how transit policy focused on attracting people who had more mobility options

About the Author

Xavier Harmony is a transportation professional with special experience in public transportation and passenger rail. His expertise includes transit planning, capital and operating financial forecasting and analysis, regional coordination, and grant management. Xavier is working to become a leader in transportation strategy and policy development and is currently a PhD student at Virginia Tech where his research focuses on the politics of public transportation.

through better commuter and rail services even though bus riders used transit more reliably. In a 2010 paper, [Iseki and Taylor](#) found that transit subsidies were regressive with rail trips requiring a higher per-trip subsidy than bus trips even though rail ridership tended to be more affluent. [Taylor and Morris](#) concluded in a 2015 paper: “we have [...] shifted policy and budgetary priorities over the past two decades from bus to rail.” Although this isn’t a new issue, the pandemic has again highlighted how rail bias permeates transit decision-making.

While rail and bus are both important to the transit tapestry, prioritizing rail generates social inequality concerns. Many who rely on buses belong to historically marginalized groups; [bus ridership is generally less white and less wealthy than rail ridership](#). According to [an analysis by the Associated Press](#), essential workers reflect these demographic trends:

The burden has been borne unevenly across gender, racial and socioeconomic lines [...] They are mostly women, people of color and more likely to be immigrants. [...] Workers deemed “essential” are also more likely to live below the federal poverty line or hover just above it.

So it comes as no surprise that [essential workers have been relying on transit](#) during the pandemic.

Analyses from both [Atlanta](#) and [Chicago](#) found that despite stay at home orders, areas with lower-income populations and more essential workers had smaller ridership losses. These trends in essential worker demographics and bus ridership provide a likely explanation as to why buses lost less ridership than rail. However, we still saw transit systems prioritize rail service over bus service.

Although this pandemic has resulted in many firsts, we can see it has also reinforced some of the inequitable transportation priorities embedded in our society. Overcoming these issues requires both top-down and bottom-up policy approaches. First, from an operations policy point of view, transit systems need to rethink how they deliver transit service and, possibly just as importantly, how to step it back when necessary. In the event of another community emergency like a pandemic, existing operational policies define our services. Without a plan or proper forethought transit services are shaped by status quo biases and the loudest political voices meaning rail, the

Share an example
of a place that is
making buses a
priority!



mode that serves the more privileged and gets the most political attention (as [argued by Garrett and Taylor](#) and [Taylor and Morris](#)), is prioritized. In an emergency, there isn't time to do much else.

However, the responsibility isn't solely on service planners and transit leadership making strategic operational decisions. We need a change from the top down. The structure of federal transit funding prioritizes more capital-intensive transit services, like rail, generating an incentive to invest in rail over bus. Researchers have been concerned with transit funding reform for decades (see [Pickrell](#) 1992, [Li and Wachs](#) 2004, and [Sanchez and Brenman](#) 2007, for example) but it is still a hurdle that the industry needs to overcome to make transit more equitable and resilient.

Finally, as I have demonstrated, academic research has been highlighting these issues and pushing for reform for decades, but little has changed. So how does change happen? In 1998, [Martin Wachs](#), the inspiration for this essay, wrote:

“In a democracy there is simply no reason to adopt major changes in policy as a result of scholarly studies or technical findings. There is every reason, however, to adopt policies that respond to vocal and persistent interest groups that demonstrate they have staying power in the political arena.”

With the effects of the pandemic fresh in our minds, now is the time to take heed of what Wachs wrote more than two decades ago. We need more than just further research to prioritize the bus; we need the sustained effort of supporters of both transit and of society's essential workers who rely on it. With people across the political spectrum calling essential workers “heroes,” there is an opportunity to capitalize on political bipartisanship to rebuild our transit systems to benefit those that bore the most cost during the pandemic. With the end potentially in sight, now more than ever, we need to implement true bus priority.

Click Below to Explore More

WATCH

Redesigning Transit Networks for the New Mobility Future

LISTEN

Albuquerque's bus system starts zero-fare experiment for 2022

READ

A Budding Model: Los Angeles's Flower Street Bus Lane



About the Author

A childhood in a car-centric suburb of Salt Lake City, a love for bicycles, and an impactful car crash have motivated Hayden Andersen to dedicate his studies and future career to sustainable transportation by reducing car dependence. As an undergraduate in civil engineering at Brigham Young University, he took every transportation-related class available while serving on the campus bicycle committee. He is enrolled at UC Davis, a sustainable transportation research mecca where he is enjoying in-person instruction and on-campus research after spending the first year of graduate school entirely online. He plans to graduate in March 2022 after completing his thesis, which explores the impacts of COVID-related street closures on local businesses.

Were COVID Pedestrian Streets Good for Business? Interviews Reveal Pandemic Prosperity

by Hayden Anderson

The COVID pandemic was particularly merciless to Sarah's business, a small family-owned winery located on a busy street in a historic district outside of Denver, Colorado. Months of stay-at-home orders and indoor dining restrictions had slashed sales and pushed the winery to the brink, forcing Sarah to begin the bankruptcy process. It was at this point that municipal officials informed her of the city's plan to implement an emergency pedestrian street program in her downtown district, a plan which involved barricading the street to restrict cars and dedicating the roadway to pedestrians. The pedestrian street program was meant to attract additional foot traffic to the area to offer lockdown-fatigued people public space to be outside at an appropriate social distance, while also providing a boost to ailing businesses.

When I spoke with her, almost a year after the pedestrian street installation, Sarah told me that the program had saved her business. She had been encouraged to set up outdoor seating in the newly available street space, which allowed her to serve customers on-site for the first time in months and in turn helped to generate the necessary revenue to weather the pandemic. She told me that she hopes the pedestrian street becomes a year-round, permanent fixture, recounting fond winter memories of customers sipping mulled wines around fire pits as they watched the snowfall gently blanket the pedestrian street.

Sarah is one of 38 business owners from across the United States that I interviewed who operated along a COVID pedestrian street as part of my graduate research. Pedestrian

streets like these were implemented all over the country in an attempt to bolster a restaurant industry that had suffered losses of \$240 billion in 2020 revenue ([National Restaurant Association](#)), as well as to galvanize retail foot traffic, which had dropped to 30 percent below regular levels during the pandemic ([RetailNext](#)). By my extensive research, I recorded and mapped out a total of 108 fully car-free pedestrian streets that were implemented in the United States during the pandemic (see Figure 1). I selected interviewees carefully, speaking with those from a variety of business types, city sizes, geographic regions, and winter climates to ensure that I spoke with business owners who experienced a wide variety of circumstances during the COVID pandemic.

Figure 1: Map of COVID pedestrian street programs in the United States



Evidence from my interviews indicates that pedestrian streets are indeed capable of (1) fostering economic vitality by boosting downtown business and revitalizing struggling urban commercial zones, (2) advancing social equity by providing livable public spaces, high-quality commerce, and increased employment in downtown areas, and (3) improving quality of life by creating beautiful car-free people-scaled public spaces that are accessible for everyone to enjoy.

Fostering Economic Vitality

Overall, the majority of my interviewees approved of their pedestrian street, commending their local program for the benefits that it brought to their businesses. The most enthusiastic supporters were restaurant owners, who especially appreciated the added outdoor seating. I encountered some opponents and doubters of pedestrian streets who felt that restaurants were unfairly benefited because other business types (retailers, service providers, etc.) could not utilize the street space in the same way. However, the majority of non-restaurant business types that I interviewed approved of the pedestrian streets, believing that their business enjoyed a synergistic relationship with nearby restaurants. Open-air dining brought more people to the area, who in turn visited and supported other businesses.

Share an example
of a place that is
making pedestrians
a priority!



Advancing Social Equity

The initial shock of the pandemic hit urban areas the fastest and hardest ([Peterson Center on Healthcare](#)), and with more than a third of Americans living further than a 10-minute walk from a park ([Brookings](#)), pedestrian streets were an important strategy for providing walkable spaces for locked down urban dwellers. Many of those that I interviewed were pleased to report a dramatic uptick in the number of pedestrians on their downtown street due to the program, evidence that pedestrian streets can provide walkable areas to those who need them most.

Additionally, pedestrian streets have the potential to offer increased economic opportunity to those living in downtown areas. My analysis of pedestrian street patterns with census data revealed that those living near these pedestrian streets earn 11 percent less than the respective county average income, demonstrating that pedestrian streets can be an equity-

increasing tool to benefit those of lower income through improved economic conditions and increased employment opportunities.

Improving Quality of Life

The newly enhanced aesthetics of the car-free streets were a valuable asset to downtown areas. A downtown street in Southern California morphed from a freeway congestion bypass into a vibrant commercial zone. A historical district in the Mountain West, once afflicted by clogged intersections, long lines of cars, honking horns, and vehicle exhaust, now enjoyed far quieter streets, cleaner air, and open spaces for students at the nearby institute to take breaks between classes. Business owners compared the increased foot traffic, open air dining, intimate storefronts, and overall atmosphere of the street to those found in Europe. When I asked about how business patrons perceived the pedestrian street, the answer was nearly always enthusiastic and positive. These COVID-induced pedestrian streets created human-scaled public spaces that were accessible to all, benefiting users with quiet, livable public spaces, demonstrating that urban streets can be used for so much more than the through movement of automobiles.

I believe that these pedestrian streets represent more than just a passing trend; they are a signal that cities are beginning to reconsider the way they utilize valuable urban street space and present an opportunity to implement thriving permanent pedestrian spaces in the post-pandemic future. Originally implemented as emergency measures to save struggling downtown businesses, their acclamation from patrons and businesses alike shows us that they can be much more than that: a valuable planning tool that can aid us in creating a brighter post-COVID future.

Click Below to Explore More

WATCH

Form and Function:
The Role and Future of
Complete Streets Post-
COVID

WATCH

COVID-19 Mobility
Adaptations: Building a
Knowledge Base for
New Practices

WATCH

Dynamic Streets,
Curbs, and Sidewalks in
COVID-19



Student Category, Third Place 

Runway to Recovery During COVID-19: Aviation Accessibility Through An Equity Lens

by Shriya Karam

About the Author

Shriya is a third-year undergraduate student at the University of Pennsylvania studying Systems Engineering, with an intended concentration in Decision Science. She is interested in developing new mathematical methodologies that center equity and accessibility in aviation systems planning and engineering processes. Outside of the classroom, Shriya is committed to diversifying the STEM and transportation field to include all genders and supporting students from underrepresented backgrounds through her teaching and leadership positions.

Transportation plays a fundamental role in quality of life, social equity, and economic vitality. The aviation system does this by connecting individuals to large-scale domestic and global trade and tourism opportunities. However, with the onset of the COVID pandemic, this landscape of the aviation industry has been upended: [McKinsey](#) reports millions in financial losses for the aviation industry, demand shocks especially for business trips, and a staggering oversupply of flights. As we move from crisis to recovery, airlines seek to rebuild their services and operations while airports look to incentivize airlines to improve service in certain regions. The U.S. Department of Transportation's (USDOT) newfound motto to "Build Back Better" refocuses transportation development around [clean energy infrastructure and equitable access](#) to opportunities. With these newly defined planning objectives, federal stakeholders should leverage the transition from the pandemic to spur the development of aviation systems under a paradigm of accessibility from the perspective of an individual traveler to meet policy and practical interests.

Prior to and during the pandemic, airport development has largely focused on planning around mobility, rather than accessibility, often using [on-time performance](#) as an indicator for efficiency. Delay, arrival, and departure statistics have been widely used to capture aviation system performance from an airline or airport perspective; extensive scholarship to analyze [delay management programs](#) highlights this as a policy objective. When faced with [worsening on-time performance](#) due to congestion, airports expand capacity and build additional infrastructure like runways and terminal space that [degrade quality of service](#)

and [worsen existing congestion issues](#). Not only that, but this delay-based planning process also exacerbates inequity in airfare and deepens environmental externalities that [disproportionately affect neighboring, low-income communities](#). The use of this reactive success metric has resulted in tradeoffs in accurately representing equity, affordability, and mobility across socioeconomically disparate communities.

Rather than planning around efficiency and on-time performance, a more holistic planning tool should integrate and weigh aviation system design variables and individual traveler characteristics into a single accessibility assessment to understand how infrastructure development impacts communities along several dimensions. Based on the work of [Wachs and Kumagai](#), the metric should satisfy the following objectives:

- Balance supply of travel opportunities with a demand-side, “impedance” measure that accounts for transportation barriers due to airfare, travel time, reliability, and environmental impact
- Define “cohorts” based on socioeconomic variables to capture benefits and disbenefits of the impacts of air travel for different populations
- Output an accessibility “score” that captures the tradeoffs across transportation characteristics, individual traveler variables, and supply
- Allow comparison of these scores across different locations as well as scenario analysis to quantify how service improvements may impact accessibility
- Utilize publicly available data sources of an open-source nature

Ultimately, this type of accessibility model must be developed methodologically by researchers and be implemented practically to the benefit of a variety of stakeholders, including both federal agencies and local communities.

Recommendations on Building an Equity-Based Planning Tool

With the government's focus on clean and equitable infrastructure and access, the Federal Aviation Administration (FAA) and USDOT should allocate funding towards partnering with researchers to build and implement an equity-based accessibility planning tool. The FAA's [Airport Cooperative Research Program \(ACRP\)](#) funds research programs in collaboration with various stakeholders with a focus on implementing practical resources that airport operations can utilize. Increasing funding for projects related to developing an equity-based aviation accessibility planning tool would

help promote the usage of this tool in practice. Additionally, the USDOT's [Essential Air Service](#), aimed at increasing rural access by incentivizing airlines to increase services for smaller communities, should receive further funding to finance strategic, sustainable, and equitable development.

While previous policy decisions point to an understanding that quantifying and measuring aviation accessibility is important, a consensus around defining accessibility in the planning community should be achieved from both qualitative and quantitative perspectives. For example, the [National Environmental Policy Act \(NEPA\)](#) requires the enumeration of social, economic, and environmental impacts with a focus on different populations before any large-scale federal action, but rather than assessing these impacts comprehensively, outcomes are simply disclosed.

As accessibility is not shaped by a standard, accepted definition and practice, initiatives that seek to expand accessibility are often subject to political intervention due to the lack of technical clarity in reports: the [expansion of London Heathrow's third runway](#) is an example of such a mobility-focused investment. Developing a clear and consistent framework around accessibility in the context of aviation, drawing from established theoretical criteria from the urban planning community, is critical in supporting equity-focused investments to achieve a sustainable path to recovery from the pandemic.

Additionally, engagement with local community stakeholders will ultimately serve to further equity objectives. Capturing perceptions of aviation-related variables on different communities based on socioeconomic characteristics will inform strategic decision-making and provide real-world insights when considering a potential infrastructure investment. Examples of community engagement include qualitatively surveying various populations of interest, outreach to community leaders of advocacy organizations, and engagement with urban and regional planning authorities.

the USDOT seeks to expand access to opportunities through an equity lens, it is critical to develop infrastructure using metrics of accessibility from the perspective of the individual user in a multi-faceted manner, rather than on-time performance. The aviation community should make considerable strides to develop more nuanced accessibility models as performance indicators that are grounded in accessibility theory. This prioritizes strategic airport development and allows



planners to understand the equity, environmental, and social impacts that are typically not evaluated when considering on-time performance. Federal stakeholders and government organizations will ultimately benefit from a tool that informs them of specific communities who suffer from low access to the aviation system and in what areas access can be improved. Improving quality of life, advancing equity, and enhancing connectivity in low-access areas is the foundation of transportation; all objectives can be leveraged through this runway to recovery during the pandemic.



Click Below to Explore More

READ

Synopsis of Oversight of U.S. Airline Industry Hearing

READ

Synopsis of Diversity in Aviation and Aerospace Industry House Hearing

READ

Op-Ed: Incorporating Sustainability in Airport Planning



About the Author

Manu Agni is Student Body President at UC San Diego. He was elected with a promise to advocate for better communities for students—through developing more livable, walkable, bikeable, and transit-accessible places. He is also a senior undergraduate studying Urban Planning with a passion for all things transportation. His past work has included developing award-winning student transportation programs, such as the "Grocery Shuttle." In addition, he advocates for better spaces, places, and transportation for students at UC San Diego. Through his work and the work of thousands of others, UC San Diego students have among the highest mode-split (away from driving alone) of any group in the region. In his spare time, Manu loves to operate & ride transit and see the country by bus.

Student Category, Honorable Mention 

How Pedestrian! Re-Imagining the Mobility Planning Process

by Manu Agni

In 2021, ‘outdoors’ is the name of the game. We often work outdoors, recreate outdoors, dine outdoors, and even live in indoor-outdoor spaces. We all love the great outdoors. The problem is, too many of us live in cities with not enough ‘outdoors.’ The pandemic [has shown us](#), more than ever before, that we could all use more outdoor space.

We have enough outdoor space in our communities. The problem is, it’s not being used to support our mental health, physical health, and happiness. Instead, it’s being used to support a transportation mode that is the greatest mistake of the 20th century. In many American cities, roadways and parking facilities consume over 30 percent of the developed land area. This must change.

It is time that we radically re-think the way that we use public space in our communities—especially in the suburbs. We don’t have time to wait for planners, engineers, and policymakers at the national level to catch up to our need. Lives are at stake—lives lost from the pandemic, lives lost from pollution, and most of all—lives lost from traffic deaths. It’s time to reclaim our streets. It’s time to make “*For the People, By the People*,” a reality. It’s time to embrace tactical urbanism in our communities.

Tactical urbanism, which is the strategy of deploying community-originated, cheap, temporary changes to the built environment, has great potential. It can show everyone in our communities how much of an impact that small changes can have. A few parking stalls converted to a parklet or a street slowed down just a little bit can make a world of difference.

Critics will say that tactical urbanism is unsafe, guerrilla, and unauthorized. To that, I say, the existing conditions of our streets are already unsafe, destructive, and develop toxic communities. Every year, [thousands of people are killed by cars](#), and thousands of people are killed by pollution. Now, [thousands are dying](#) of the pandemic as well.

To that, we must persuade our local leaders to end the “Willy the Groundskeeper” mentality. Perfectly manicured medians, six lane arterials, be gone. While solutions in the spirit of tactical urbanism may not be engineered to be permanent, and certainly not Manual on Uniform Traffic Control Devices (MUTCD) compliant, they show everyone (including leaders) how radically different our communities can look and feel.

It’s time to end red asphalt in our neighborhoods and embrace the Community Design Challenge.

The Community Design Challenge is a novel idea for the planning practice. In the past, planners often develop neighborhood plans far into the future, with extreme vetting that often kills any plan to radically change our mobility options. This idea proposes that community members must be allowed to first organize, design, and strategize, without punishment. We must be allowed to show our planning leaders what our neighborhoods really could look like; long design processes be damned.

Such community challenges have occurred already to great success like the *Designathon* at the University of California San Diego. There, student leaders, with the blessing of campus partners, organized a design challenge to radically re-think the spaces on campus. The students participated in an innovative competition to design new spaces and places on campus. Topics in the past two years have included slow streets and placemaking. Student proposals were judged by a panel of expert judges, and winning submissions had the opportunity for their designs to be implemented. Most of those students were not, and are not, urban planning majors. Many of them had never even thought that the campus could look so different and so radically better.

Share an example
of a place that is
making pedestrians
a priority!



The success of that [award-winning challenge](#) shows the power that Community Design Challenges can have. They can bring disconnected communities together. These Challenges should be organized by local community-based organizations, with the blessing of local leaders. Local leaders should take the opportunity to embrace the ideas of the community and bypass the archaic planning process where the removal of a single parking stall on the street could be a yearlong battle. Local leaders should take these ideas, consider their safety while remembering that the existing condition in our communities is extraordinarily unsafe, and implement them. Ideas only have to be trialed for a few days, weeks, or months. That is the spirit of tactical urbanism.

As such, Community Design Challenges hold tremendous power for reshaping the places where we live, work, learn, and play.

It's time to tell Willy the Groundskeeper to loosen up and radically change the way we go about designing our spaces & places.

Click Below to Explore More

WATCH

Trains, Buses, People: An Opinionated Atlas of U.S. and Canadian Transit

READ

Re-Examining the Role and Scope of Community Engagement in Project Delivery

READ

How Will the Reconnecting Communities Pilot Program Work?



About the Author

Simon Tan is an aspiring urbanist, on a journey to start his second career as an urban planner. He previously had a 10-year run as a product manager in the software industry, but retired from tech in 2020 and is now pursuing a Masters in Urban Planning. He has held internships with SFMTA in San Francisco and Sound Transit in Seattle, and has also worked with organizations such as APTA, SPUR, Seamless Bay Area, and SF Transit Riders.

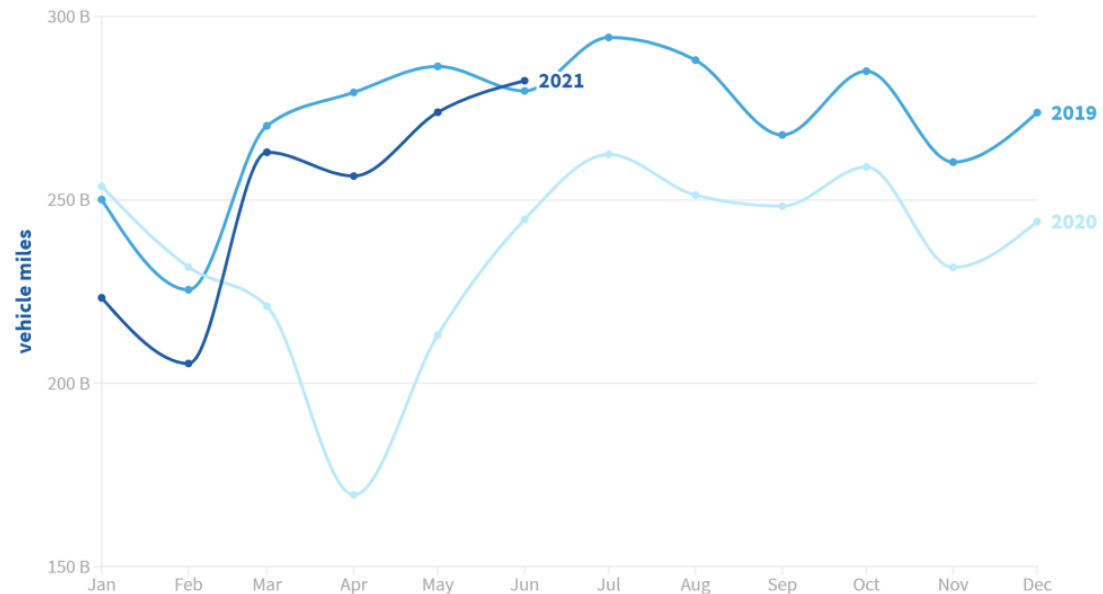
Student Category, Honorable Mention 

Roll Out the Red Carpet for Transit *by Simon Tan*

As cities across the United States recover from the COVID-19 pandemic and joyfully reopen their economies, they are discovering one of the predictable downsides of all the increased activity—the return of paralyzing traffic congestion. From [San Francisco](#) to [Boston](#), traffic is approaching pre-pandemic levels. Too many Americans are getting back into their cars (or purchasing new ones) and hitting the roads, resulting in [more vehicle miles traveled across the nation](#) in June 2021 than in June 2019.

Figure 1: Chart by [Manyu Jiang](#)

US road traffic is back to pre-COVID levels as people drive again



Source: [U.S. Department of Transportation](#) • Roads traffic is calculated based on vehicle miles by all vehicles on all roads in the U.S. Data is collected at approx. 5,000 continuous traffic counting locations nationwide.

If this trend continues in our urban centers, cities will suffer all the well-known negative consequences of congestion: lost productivity, more automobile accidents, increased pollution, reduced network capacity, and limits to economic expansion. How can we address this impending catastrophe?

One answer is to aggressively invest in building dedicated transit-only lanes—also known as busways, transit priority lanes, or tactical transit lanes. They supercharge transit as a viable alternative to driving, can be implemented relatively quickly and cheaply, and promote an equitable pandemic recovery.

It Makes Transit More Effective & Attractive

Transit has an [essential yet indirect role](#) to play in mitigating the worst effects of congestion, so it is in the best interest of cities to promote transit ridership as a sustainable alternative to driving. However, people will not choose to take the bus if it's just going to be stuck in the same traffic as their cars. Transit-only lanes makes the decision to take transit much easier.

When the San Francisco Municipal Transportation Agency (SFMTA) installed temporary emergency transit lanes on Geary Boulevard, one of the busiest bus corridors in North America, travel times were [up to 13 percent quicker](#) compared to pre-COVID levels. The 14th Street busway in New York City has been [transformative](#), resulting in a 24 percent improvement in travel times and a 14 percent increase in ridership as [measured in Winter 2020](#), with [minimal traffic effects on parallel streets](#).

More efficient service also means cost savings for transit agencies. Every minute a bus operator is stuck in traffic is one where they are being paid for not moving passengers. Creating space for buses to move quickly without impediments means that operators can now work fewer hours. Alternatively, they could complete more runs so agencies can offer additional frequency on routes with the same amount of labor. Either way, it's a far better passenger experience—people won't need to wait as long for the next bus, and they complete their journeys in less time. Both of these are key factors for

attracting more riders to the system overall.

It's Relatively Low-Cost and Quick to Implement

Cities can get started making transit-only lanes with merely a few strategically-placed cones (as Boston did during a [month-long pilot](#) on Washington Street), upgrading to red paint and more comprehensive street redesigns at a later date. A [guide](#) from the UCLA Institute of Transportation Studies suggests these are also often implemented incrementally in segments running 0.5-1 mile in length and costing about \$100,000 per mile. San Francisco [estimated](#) its first phase of transit-only lanes across four routes would only cost \$250,000 and be completable in six to eight weeks. A [proposal](#) for Southeast Florida also suggested construction costs would be low for basic restriping.

When compared against other fixed-guideway systems such as light rail, busways can be even more appealing from a cost-effectiveness perspective. [Some argue](#) they can match the throughput of much more expensive solutions: they can be one-fourth the capital cost of a light rail line of comparable capacity and cost half as much per passenger to operate.

It's Equitable and Democratic

During the pandemic, high-income white-collar workers abandoned their regular commutes as they largely had the flexibility to work from home. However, the “essential workers” disproportionately located in low-income neighborhoods of color were still relying on transit to get to their jobs, resulting in [buses operating near full capacity only along their routes](#). If we really value these workers and their essential services, shouldn't we invest accordingly to give them frequent and reliable transit? Transit-only lanes would be a valued commitment to equitable allocation of road space in this regard.

In the long-term, dedicating right-of-way to higher capacity vehicles is the democratically fair thing to do regardless. Enrique Peñalosa, former mayor of Bogotá and world-renowned BRT advocate, [described this principle](#) the best by saying that “a bus with 80 passengers has a right to 80 times more road space than a car with one.” His efforts to develop the TransMilenio system inspired the proliferation of highly successful busway networks [across Latin America](#)

Share an example
of a place that is
making buses a
priority!



and the world.

The myriad of success stories from [Seoul](#) to [London](#) to [Washington DC](#) should make it obvious that transit-only lanes are an effective strategy for cities to pursue in response to rising traffic congestion. They drastically enhance the performance and appeal of transit, are cheap and easy to build, and align strongly with the values of modern urban planning practice. Cities across America should begin pilots immediately if they haven't done so already.

Click Below to Explore More

WATCH

Webinar on Los Angeles's Flower Street Bus Lane

READ

FTA Advances Three Small Start BRT Projects

READ

TCRP Report: Redesigning Transit Networks for the New Mobility Future



About the Author

Katherine Turner is a first-year master's student in the Transportation Technology and Policy program at UC Davis. She is currently working as a graduate student researcher at the Policy Institute for Energy, Environment, and the Economy. Previously, Katherine received her Bachelor's Degree in Civil Engineering from Vanderbilt University and worked on research projects investigating diversity in the transportation sector and climate and disaster resiliency in freight transportation. She hopes to improve the link between community members and transportation planners to create a more equitable and just transportation future.

Student Category, Honorable Mention 

Grappling with History – Improved Awareness of Structural Inequality and Health Outcomes in the Transportation Sector

by Katherine Turner

The COVID-19 pandemic has further illuminated the structural inequalities plaguing the United States. COVID-19 health impacts were not equally distributed among demographic groups in the United States, and certain factors predicted worse outcomes. Exposure to the air pollutant Nitrogen Dioxide, or NO₂, through proximity to highways was associated with higher case-fatality and mortality rates. The legacy of disparate transportation infrastructure in the United States influenced the demographically influenced outcomes of the COVID-19 pandemic. Steps need to be taken to codify equity-based planning metrics for future transportation plans and prioritize assessment of historically disadvantaged groups with respect to nearby transportation infrastructure. Prioritizing equity and sustainability in transportation planning can improve long-term health outcomes of community residents, decrease inequality between racial groups, and assist in reaching climate goals.

A study assessing the role of urban air pollution and COVID-19 fatality by [Liang et al](#) found statistically significant correlation between exposure to NO₂ and COVID-19 case-fatality and mortality rate. A 4.6 parts per billion (ppb) increase of NO₂ was associated with an 11.3 percent case fatality rate and [16.2 percent mortality rate in COVID-10](#). Another study conducted also found links between exposure to traffic-related air pollution and poor COVID-19 outcomes. [Lipsitt](#) also noted that COVID-19 hospitalization rates for Black and Hispanic populations were around 4.7 to 4.6 times higher in the United States. This study also found that an 8.7 ppb increase in NO₂ was associated with a [35-60 percent increase in mortality rate](#). The results from these two studies demonstrate worse outcomes in COVID-19 among individuals experiencing higher amounts of traffic-related air pollution.

In 2010, over 11 million people in the United States lived within 150 meters of a major highway. In the report assessing proximity, major highways were defined as interstates (Class 1) or other freeways and expressways (Class 2). Multiple demographic metrics were assessed and the greatest disparities between who lived near major highways were race/ethnicity, nativity, and language spoken at home. While 3.7 percent of the population lived near major highways there was a greater proportion of certain populations: [5.4 percent of Asian/Pacific Islander Americans](#), [4.4 percent of Black Americans](#), and [5.0 percent of Hispanic Americans](#). Transportation-generated air pollution was far from the only predictive factor for disparate COVID-19 outcomes but serves as an example of one of many structural elements.

The creation of the Interstate Highway System improved connectivity between cities and states but came at a permanent cost to ethnic minority communities across the United States. In Miami, 10,000 homes were demolished along with a predominately black business community for highway construction. Throughout the United States, there are examples of how minority communities were negatively impacted by the development of the highways. The Interstate Highway System also created and perpetuated a [long-lasting reliance on car transportation](#). Land planning and zoning patterns also exacerbated this trend, but the comprehensive network of interstates hinders the development of transit-oriented transportation planning. The disparate outcomes of COVID-19, exacerbated by exposure to traffic-related air pollution highlight the continuing effects of the Interstate Highway System on inequality in the United States.

[Oregon](#) has devised transportation equity system evaluation measures which include affordability, access to travel options, access to jobs, access to community places, share of safety projects, exposure to crash risk, and high-value habitat impact. The metrics reflected the priorities identified by the historically marginalized communities. Creating a uniform equity evaluation standard for transportation planning is just one of many methods planning organizations can use to emphasize equity. A more human-oriented design process for transportation planning cannot alone solve the disparate health outcomes in the United States but is a key element to improving upon the existing structural inequalities.

Equity and sustainability metrics should be integrated into the most foundational parts of transportation planning agencies. The guidelines for evaluating and increasing



transportation equity are out there and the research exists. It is time now to incorporate and implement that work into state departments of transportation, metropolitan planning organizations, and the manuals guiding transportation engineering. The direct role in health outcomes dictated by the legacy of the federal highway system exacerbated unequal health outcomes in COVID-19 and incorporating equity metrics in transportation planning can help close the gap in health outcomes among minority communities in the United States. A new transportation system cannot be built from the ground up, but current plans do not exist independent of the history they were built on. Reframing the priorities of planning organizations to fit the goals of a healthier, more sustainable, and more equal society will benefit community members and improve health, sustainability, and equity outcomes of future transportation infrastructure. It is time for a framework shift in transportation planning where equity is placed at the forefront of future plans.

Click Below to Explore More

WATCH

Environmental (In)Justice During COVID-19

READ

The Role of Transportation in Improving America's Health

READ

Op-Ed: Bipartisan Infrastructure Bill Could Be a Win for Climate, If It Can Be Leveraged to Those Ends



About the Author

Andrea Hamre, PhD, is a Research Associate in the Mobility and Public Transportation Program at Montana State University's Western Transportation Institute. Dr. Hamre has over 10 years of experience and offers subject matter expertise in sustainable and equitable transportation policy and planning. Her dissertation applied the theory of transport justice developed by Dr. Karel Martens to evaluate low-income access to employer-based transit benefits. Dr. Hamre has published peer-reviewed research on commuter benefits, cycling, multimodal travel, and regional planning. Dr. Hamre earned her M.S. in Applied Economics and Ph.D. in Planning from Virginia Tech, and her B.A. in Environmental Studies from Middlebury College.

Professional Category, First Place 

Racial Equity in Traffic Enforcement

by Andrea Hamre

Racial bias, discrimination, and injustice are endemic to U.S. traffic enforcement. To be endemic, a condition must be found routinely or with regularity, and regardless of geographic setting or transport mode. Black and brown people across America are over-represented in persons deemed by police to be suspicious and worthy of detaining, searching, ticketing, citing, and arresting, and are over-represented in traffic stops resulting in excess force, mental trauma, injury, and death. The cumulative effect of these conditions is the limiting of the dignity, quality of life, and life chances of Black and Brown people, who report more fears and concerns regarding their personal safety and the possibility of harassment by police as well as more efforts to limit how often and where travel is undertaken.

The evidence base for the [“vastly different lived experiences of Black and brown people with law enforcement”](#)—the collective experience of what [Charles T. Brown has termed “arrested mobility”](#)—comes primarily from academic researchers and investigative journalists, because there is neither a national public traffic stop database nor a requirement for local or state law enforcement to collect information relevant to the evaluation of racialized policing. [The Stanford Open Policing Project](#), a collaboration among researchers and journalists, exemplifies this effort to fill the void in federal data and analysis. [The Washington Post’s Fatal Force database](#) is another. The lack of data collection requirements in many cases puts the onus on researchers and journalists to conduct primary data collection, prepare Freedom of Information Act requests, or pivot research questions to focus on simplified proxies.

As we do the important work to [reimagine public safety](#) and ensure [safety for all](#), we must make a national commitment to eliminate a lack of data as an excuse for the enduring reality

of racial injustice. A practical and readily available investment offering immediate returns is the realization of the power and potential of the Section 1906 Grant Program to Prohibit Racial Profiling. [Section 1906 of the 2005 SAFETEA-LU](#) surface transportation authorization established a new federal grant program to encourage the enactment and enforcement of State laws to prohibit racial profiling in highway law enforcement, and to establish motor vehicle traffic stop public databases containing racial and ethnic information about drivers and passengers. An initial authorization of \$37.5 million over 5 years was made available, with the federal share at 80 percent for grants to collect and maintain traffic stop data, evaluate results, and develop programs to reduce the occurrence of racial profiling. Authorization continued under the FAST Act, with grants of [\\$375,000 per year available for state highway safety offices](#)—but the program has been [woefully underutilized](#). While [at least 24 states](#) have received funding through Section 1906 since 2006, it has been estimated that less than [\\$3 million has been distributed](#) annually among only 4-5 states in recent years. Section 1906 was featured at the February 24, 2021 Congressional Subcommittee on Highways and Transit Hearing on [“Examining Equity in Transportation Safety Enforcement.”](#) where National Safety Council President & CEO Lorraine Martin acknowledged that [“good data are foundational to making sound decisions about safety interventions and are especially important to address equity concerns”](#) but that many states have not even applied for Section 1906 grant funding.

Connecticut has served as a national model for the utilization of Section 1906 grant funding. [As Connecticut State University researcher Ken Barone described at that hearing](#), Connecticut has utilized the funding to implement a multi-phase framework for identifying disparities (via a universal traffic stop electronic data collection system), convening data-driven dialogue, and introducing informed interventions. Since 2015, Connecticut has analyzed racial disparities in traffic stops from 107 law enforcement agencies and found: statistically significant racial and ethnic disparities in traffic stops; over-representation of Black and Hispanic drivers in stops and searches; and a lower likelihood of finding contraband in searches of Black or Hispanic drivers. [During his testimony](#), Barone emphasized that racial and ethnic disparities are significantly decreased when the focus of traffic enforcement is on safety (e.g., reducing hazardous driving), rather than as a pretext for crime reduction or immigration enforcement.

Share an example
or idea for how
improve racialized
traffic enforcement



An updated and expanded Section 1906 grant program should be included in the upcoming federal surface transportation reauthorization as a foundational investment in the realization of a comprehensive, standardized, and readily available national database on interactions between the traveling public and law enforcement. [As summarized by the Transportation Equity Caucus](#), Section 1906 should be updated to include stops involving travelers using all modes of transport (including pedestrians, bicyclists, transit riders), authorize technical assistance and outreach to support policy and program development, and eliminate the loophole to redirect funding for other enforcement purposes.

For too long and [“too often, safety is the privilege enjoyed by a few and not a right enjoyed equitably by all.”](#) Expanding Section 1906 is a down payment toward the weakening of the endemic nature of racialized policing in this country and an end to arrested mobility.

Click Below to Explore More

READ

Propel, the Eno Alumni Magazine, the Equity Edition

READ

State and Local Traffic Enforcement Reforms Gain Traction

LISTEN

Living Legacies Podcast on Mr. Eno and the Origins of Modern Traffic Control



About the Author

Steven Higashide is Director of Research for TransitCenter, a New-York-based foundation that works to make cities more sustainable and just through better public transit. He has conducted and managed research about who rides transit and why, how tax policy influences transportation, and transit's role in a Green New Deal. His book *Better Buses, Better Cities* was named one of Planetizen's 10 best urban planning books of 2019.

Professional Category, Second Place 

A Mobility Guarantee for Rural America

by *Steven Higashide*

Rural life often requires self-reliance, but the shadow side of this is isolation, especially among [older adults](#). Public transportation agencies work against this daily, connecting people to health care, education, and social interaction. As Jeanne McMillin of Oklahoma's Little Dixie Transit [told Vice](#), "I can't tell you how many people we transport where we will be the only people they see on any given day."

As the COVID-19 pandemic rages through rural areas, transit providers have found even more ways to serve their communities, including grocery delivery and using buses as [mobile Wi-Fi hotspots](#). This dedication—and the crucial role rural transit providers will continue to play after the pandemic—should be recognized with a new federal commitment to rural transit.

Such a commitment was a strange omission from the [bipartisan infrastructure deal](#) struck by the White House and passed by the Senate in August. The deal offered a new vision for rural rail; it would rewrite Amtrak's mission to emphasize that rail routes "are valuable resources of the United States that are used by rural and urban communities," and provide \$16 billion over five years for the "national network" outside of the Northeast Corridor.

But rural residents are less likely to turn to Amtrak than they are to public transportation agencies, which served 167 million trips outside of urban areas [in 2019](#). They also serve a population with great need. The more rural a county is (per the Department of Agriculture's "[rural-urban continuum](#)"), the [more likely](#) its residents are to be elderly, live with a disability, and to live below the poverty line. In the most rural counties, six percent of households lack access to a vehicle.

Rural transit agencies fulfill their mission despite receiving only \$716 million annually through the federal rural transit formula program, which the bipartisan infrastructure deal would increase to just \$960 million. As Oklahoma Transit Association director Mark Nestlen [has said](#), federal rural transit programs are “a square peg in a round hole,” modeled after urban transit funding programs with limited thought given to the differences between transit in metropolitan areas and outside.

Elements of a Rural Transit Program

A reimagined rural transit program should include three elements:

A federal “mobility guarantee.” For more than fifty years, the federal government has maintained a standard for [Essential Air Service](#), subsidizing twice-daily flights to and from nearly 200 communities that would otherwise have no aerial link to major cities. The Departments of Transportation, Agriculture, and other agencies involved in rural development should define a new standard for Essential Transit Service. This could be a service standard—a requirement that every community with a certain number of residents have hourly bus service or on-demand transit, including a link to an intercity bus route. It could also be an outcomes-based standard, defined by the ability of transit service to connect residents with healthcare, food, and education.

State support for rural transit planning, procurement, and technology. Knitting together the patchwork of rural transit requires cohesive governance, and states are best positioned to provide it. Many states already recognize the role they can play in resourcing intercity and rural transit. Colorado’s Department of Transportation has taken a leadership role to plan, brand, and implement [Bustang](#), a publicly-funded intercity service. California’s DOT procured software and [open-loop payment systems](#) that all transit agencies in the state can buy into, while Nebraska’s pre-qualified multiple vendors of scheduling and dispatch software. Arkansas’s DOT passes federal funds through to its state transit association to run [training programs](#), workshops, and meetings.



But dozens of state governments have only a minimal role in public transportation. This should change; every state should be required to stand up an Office of Local Transit Support responsible for intercity transit planning, joint procurement, training, and other assistance. Vesting more responsibility for rural transit in state government could improve transportation more broadly. The Eno Center for Transportation and TransitCenter’s 2015 study of transit governance, [Getting to the Route of It](#), found that state involvement in transit planning tends to lead to a broader state interest in multimodal coordination.

Federal funding sufficient to meet need, with flexibility in local matching requirements. Today, rural transit is a scarce resource. For example, in 2018, Oklahoma transit agencies spent \$90.5 million operating service and provided 9.6 million trips—but the state’s DOT and transit association [estimate](#) that the actual demand for transit was 17.7 million trips. Most of the unmet demand was in rural areas; meeting it would have required an additional \$127 million for service.

The scale of unmet demand across the country will require funding on the magnitude called for in Congressman Hank Johnson’s Stronger Communities Through Better Transit bill ([HR 3744](#)), which would provide up to \$5 billion a year for operations of rural and tribal transit systems, part of an annual \$20 billion investment in transit service.

But although rural systems rely on federal grants, they struggle to provide local matching funds for operations, often relying on Medicaid and human service contracts. The rural transit formula should be changed so that states can use federal-aid highway funding as a match. National Highway Performance Program funds should be allowed to support intercity bus service, while Surface Transportation Block Grant funding should be allowed to support all rural transit service.

Rethinking rural transit could be key to public transportation’s political future. The bipartisan infrastructure deal nearly [deadlocked](#) over transit, and the realignment of political parties along

Click Below to Explore More

READ

Senate Hearing Shows Bipartisan Support for Rural Transit

READ

USDOT Rural Public Transportation Systems Website

WATCH

Platform-Based Approached to Public Transit

metropolitan lines has made transit a sharply polarized issue. Just as a broader conception of Amtrak led to a robust deal on intercity rail, a renewed vision for rural transit could underpin bipartisan support for public transportation.

More importantly, it could better connect millions of people. An Essential Transit Service standard would recognize that, in the countryside as much as in cities, mobility is an essential need that enables us to meet our other needs.



About the Author

Jonathan Howard serves as a Program Manager in the Federal Transit Administration's New York regional office. Jonathan oversees and manages a portfolio of over \$1 billion in federal transit investment throughout New York and New Jersey. He also serves as FTA liaison for two Transportation Cooperative Research Board research projects: SA-54 - Pedestrian and Bicycle Safety in Bus/BRT Corridors and H60 - Lessons Learned from COVID-19: Strategies to Enhance Racial and Social Equity Through Public Transportation As A Community Lifeline. A native of Huntington, New York, Jonathan received a degree of Master of Science in Transportation and Urban Infrastructure from Morgan State University in Baltimore, and previously was a member of the City of Seattle Transit Advisory Board.

Professional Category, Third Place 

Sidewalks are Public Transportation

by Jonathan Howard

Disclaimer: The views expressed in this essay do not necessarily represent the views of the Federal Transit Administration or the United States Department of Transportation.

A decade ago, my mother had a parking mishap in front of her condo. She confused the gas for the brake, hopped the curb, and sailed her Subaru directly into the neighbors' spare bedroom. My mom was ok, and luckily nobody was home.

My mother has a neurodegenerative disorder with debilitating cognitive affects. After her diagnosis, she drove only short distances, to familiar places. For a while, she continued to drive well. However, her driving was declining. I thought, "this time it was a building. Next time it could be a person, or she could injure or kill herself." It was scary to think about.

This is a common story in the United States. I'm sure you know some friends or family, or perhaps yourself, who has dealt with something similar. If you have had to talk to your parent about this, you know that it can be a difficult conversation. Eventually my mother agreed with me: It was time to give up her keys. She never drove again.

You may already know where this is going: Isolation. Something we can all relate to after quarantine and COVID-19.

With her cane, walker, or electric scooter, my mother would have been capable of accessing the pharmacy, grocery store, pizza place, bakery, restaurant, and bus stop. But she was not able to do that—not because of her own disability, but because of the inability of the infrastructure to allow her to do so.

On a trip to the corner deli, one encounters no sidewalk whatsoever. At the corner, there was no crosswalk and all manner of drivers ripping illegal rights on red. It would not have been safe for her to navigate the [aggressive driving](#) the infrastructure catered to.

The infrastructure made it clear: You don't belong.

My mother, like [two-thirds of adults](#) in America, wanted to be able to use sidewalks as part of her daily life; she wanted her independence. Much of the time, she was alone, unable to leave the house. My father drove her around as much as he could. He commonly took days off work to do this.

This loss of independence was very hard on her, [like so many Americans](#). She became depressed; losing the ability to drive was found to increase likelihood of depression by [91 percent](#).

Having sidewalks could have helped. People who live in neighborhoods with sidewalks are [47 percent more likely](#) than residents of areas without sidewalks to be active for at least 39 minutes a day. The health benefits are undeniable—building sidewalks is [recommended](#) by the Surgeon General for a reason.

In America, we accept that elderly and disabled people can be locked out of the transportation system through no fault of their own. We also accept a certain amount of death and carnage of people using the public infrastructure to walk, bike, or roll. We shouldn't.

Deaths and injuries are moving quickly in the wrong direction. In 2014, [4,884 pedestrians](#) were killed by cars nationwide. That somber figure has [soared](#), increasing 37 percent in just six years, with huge spikes in the “COVID year” of 2020. Black and Brown people make up a disproportionate number of the [deaths](#), as well as [injury rates](#), and saw disproportionate increases during the “COVID year” also.

Share an example
of a place that is
making pedestrians
a priority!



The state of pedestrian safety is so [dire](#) that dedicated large-scale infrastructure programs will be required to reduce the number of deaths and injuries. Organizational missions like [Vision Zero](#) and [Complete Streets](#) provide good guiding principles for municipalities to make solid decisions for the future and existing infrastructure.

Some municipalities have decided to take action. The New York City Department of Transportation has implemented [Safe Routes for Seniors](#) projects that have made numerous spot improvements to improve the quality of life for residents and increased the health and economic vitality of the city.

Another notable highlight from New York City is the human-focused [retrofit](#) of Edward L. Grant Highway in the Bronx. [Forty-four motorists, pedestrians, and cyclists were injured per year between 2013 and 2017](#) on the super-busy urban arterial. New York City is now investing in safe infrastructure to benefit the most vulnerable road users in this corridor, all while adding dedicated bus lanes to improve the public transit experience.

It is crucial for agencies to break down institutional silos and work together to fund, plan, and implement these lifesaving projects.

A few weeks ago, I went to visit my father. I noticed some activity at the intersection: Construction of some new sidewalk, crosswalks, timed crossing signals, and ADA curb ramps. Believe me when I tell you it made my day to see this. While my mother now lives in a nursing home and is unable to see or use the improvements, it makes me happy to know my father, in his 70s and very active, will have more safety in the neighborhood as he ages.

Progress is good. Life is everything. As a nation, we should be pursuing both with alacrity.

Click Below to Explore More

WATCH

Form and Function:
The Role and Future of
Complete Streets Post-
COVID

WATCH

COVID-19 Mobility
Adaptations: Building a
Knowledge Base for
New Practices

WATCH

Dynamic Streets,
Curbs, and Sidewalks in
COVID-19



About the Author

Amy Johnson is a senior transportation planner for the North Central Texas Council of Governments and the coordinator for the Dallas-Fort Worth Metropolitan Transportation Plan. She has been collaborating with colleagues and partners on focus areas such as public involvement, financial planning, and scenario planning. As a long-range planner, she is passionate about strategy and breaking down silos to ensure NCTCOG transportation priorities reflect the needs and values of DFW residents. She has a B.A. in Geography from the University of Tennessee, Knoxville.

Professional Category, Honorable Mention 

Are you Going Virtual with Public Engagement? Consider These Three Principles First

by Amy Johnson

Public involvement for transportation has traditionally been a top-down system of asking people what they want to see, or what they think of certain projects, with the idea that the planning organization would take those desires as a mandate, set goals to make them reality, and alter projects to meet citizen needs. It makes sense people would approach it this way: we [need the public to support](#) the projects, programs, and policies we seek to enact, and we rely on public input as the foundation for planning goals. After all, most planners don't get into this line of work for selfish reasons. We desire to improve communities, create value, and make advancements towards equitable access to things like jobs, healthcare, food, and opportunities. But there are problems lurking underneath this top-down approach.

Opportunity for Change

Sudden changes like global pandemics can bring an opportunity for growth because crises pause the inertia often preventing organizations from [finding ways to do things better](#). Pre-pandemic, agencies typically hosted public meetings complete with requisite PowerPoints, participated in outreach events with giveaway items, and perhaps launched surveys to ask people their preferences for travel or the built environment. But [participation in public meetings](#) was slim; there was little to show for the outreach events; and agencies were potentially left looking at a long list of preferences for things they couldn't implement (affordable housing or more sidewalks—the purview of other agencies).

Advocates for change say [most public engagement is worse than worthless](#), because it not only fails to result in meaningful input; it fails to understand the mechanics of the relationship between planning organizations and the public. What's more, in response to the pandemic, two main sources of input—in-person meetings and outreach events— vanished practically overnight. Before rolling out a virtual replacement for public engagement, though, it pays to take a thorough look at engagement systems and processes. What is the right way to reach people? Obviously online, but how can we ensure that the new path forward harnesses the expertise of both sides—the agency and the public—to not only get consensus and support for plans and projects, but to help solve the community's pressing issues?

In a Dallas-Fort Worth example, instead of riding the inertia of a top-down approach, we seized the opportunity for change brought about by the pandemic, and utilized new guiding principles to create an online engagement tool called [Map Your Experience](#). Below are three key principles that, if employed, can help in reimagining public engagement strategy around change to improve the value created for both the public and the organization.

Seek Meaningful Input Earlier

Public engagement methods for the long-range transportation plan often focused on the feedback stage by presenting draft plans or project alternatives for comment and review near the end of the planning process. There is value in bringing these items to the public in that they offer transparency and serve as valuable education opportunities. The trouble with using only feedback at a late stage is threefold: first, a lack of voiced opposition is often seen as support, which isn't always the case. When someone doesn't support a project, do we know what they *do* support? Second, consultation near the end of the process leaves little time for revision based on public comments. Lastly, if someone supports bus service, for example, does that mean they will actually use it, or that they are able to? There is often a [disconnect](#) between what people *say* they want and what they *do*; the same is true for what people say they want and the political, social, or technical realities.

Meaningful input is gathered not only at the end of planning processes, but also at the beginning. And it pays to know what you are able to do with the input.

Share an example of
a place that is doing
great community
engagement!



Ask the Right People for the Right Things

The public may not know the specifics of what type of repair is best for a road or who installs sidewalks; and they likely don't know that funding sources are often restricted to certain uses. Planners and engineers are experts with years of training and specialized knowledge on those topics. But the public is the expert in what it feels like to wait at a bus stop with no shelter when it starts to rain. They know what it's like to have to cross dangerous intersections on foot because they have no car. They know what it's like to sit in traffic when they're running late to work. Asking people where they struggle instead of what they want provides a channel for the public to feel heard, and data for the transportation experts to use in crafting solutions.

Focus on Problem-Solving

To fill in knowledge gaps and introduce a pathway for comments earlier in the process, Map Your Experience gathers problem spots and locations of need. Instead of asking "what do you want to see?" or "do you support this?" it asks, "where do you struggle?" Providing input opportunities earlier, at the problem identification stage, can reveal things that might have otherwise gone unseen. In the Map Your Experience example, maps and comments derived from the tool can ultimately help inform updates to the long-range plan's goals by aligning future goal updates with public concerns logged in the tool. It can also help solve for the lack of participation by traditionally underserved populations, by making it possible to analyze where comments are coming from, then pursuing targeted outreach to areas that haven't chimed in.

Conclusion

Virtual tools like Map Your Experience don't eliminate traditional feedback channels. Rather, they complement them to bring more valuable data and information earlier in the planning process. Before deploying new tools to adapt post-COVID, it pays to find ways to get meaningful input earlier, ask the right people for the right things, and focus on problem-solving.

Click Below to Explore More

READ

Re-Examining the Role and Scope of Community Engagement in Project Delivery

WATCH & READ

What Does Equity in Transportation Actually Mean?

WATCH

Why Transit Agencies Need the Public to Take Ownership of the Transit Experience



About the Author

Anna Zivarts is a low-vision mom and nondriver. Since launching the Disability Mobility Initiative at Disability Rights Washington, Anna has worked to bring the voices of nondrivers to the planning and policy-making tables. Those of us who can't drive or don't have access to a car are more likely to be disabled, BIPOC, and immigrants. We are also elders and young people, as well as those who can't afford to own or maintain a vehicle. Over the last year, Anna has built a nondriver storymap, compiled the expertise in these stories into a groundbreaking research paper that she just had the opportunity to present to the AASHTO Board, and launched a #WeekWithoutDriving challenge. Anna received both her masters and undergraduate degrees from Stanford University.

Professional Category, Honorable Mention 

Hire People Who Can't Drive: We are Experts on the Transportation System of the Future

by Anna Zivarts

For too long, transportation policy has been written by and for drivers. This is not only failing those of us who cannot drive or cannot afford to drive, but also failing us as a society. The lived experience of nondrivers could help us build a more equitable, economically vital, and accessible transportation system.

At the start of the COVID pandemic, white collar commuters overwhelmingly stopped using public transit. But on routes that serve low-income, immigrant and BIPOC communities, [transit ridership remained](#), and for the first time, those of us who are transit reliant became much [more visible](#).

Nationally, nearly a third of our population [can't drive](#) and people of color, [immigrants](#), [low-income people](#), and [disabled people](#) are less likely to have a driver license or access to a car. As planners and policymakers look for ways to increase the number of people walking, rolling, and riding transit, it's time they recognize nondrivers as the transportation experts we are, having years of experience navigating sidewalks, buses, and paratransit systems that most transportation professionals and decision makers don't use or rely upon on a daily basis.

In 2022, the Disability Mobility Initiative is releasing a groundbreaking research paper on the transportation needs of [disabled nondrivers](#), based on interviews with 125 Washington residents who cannot drive. It's not an exaggeration to say almost everyone we interviewed expressed a sense that their mobility needs are afterthoughts and that they are substantially left out of the processes that shape transportation systems.

Most tellingly, we heard many stories that reinforced our belief that transportation professionals would benefit from including more nondrivers in their ranks, from transit board members expressing they are “too busy” to ride the bus, while voting to further decimate service, to planners siting light rail where users have to navigate unsignalized highway onramps to access the station.

One obvious first and easy step is for transportation and transit agencies to stop requiring driver’s licenses for jobs where driving is not an [essential job function](#). In the last year, we’ve found jobs at [Washington State Department of Transportation](#), [Seattle Transportation Department](#), and [Central Puget Sound Regional Transit Authority \(Sound Transit\)](#) requiring driver’s licenses for a public transportation planning specialist, an ADA coordinator, and transit fare ambassadors.

Transportation agencies need to start reviewing every job posting to ensure the job requirements match the job description and remove unnecessary requirements that serve as barriers to exclude low-income, disabled, and BIPOC applicants who have the lived experience to perform the job.

Beyond removing barriers that should have been eliminated by the passage of the ADA, 31 years ago, it’s time for transportation agencies to actively recruit nondrivers for agency and leadership positions, recognizing that there is no more important credential than lived experience.

To be clear, we aren’t asking for new accessibility committees that risk sidelining us. Our voices must be welcomed into rooms and conversations where these decisions are already happening. From broad policy and funding considerations, down to the details about how we board a bus or navigate a ride-booking system, our voices must be sought out for our expertise and that expertise must be reflected in every aspect of existing processes and

Share an example of
a place that is
making accessibility
a priority



structures. Our presence at these tables will help to shift funding and planning priorities, allowing us to more quickly build and repair the infrastructure that our communities need to thrive.

Making these investments not only helps those of us who can't drive, it also creates opportunities and benefits for others who have been historically excluded. Compared to new highway construction, transit and multimodal projects create more [jobs per dollar invested](#). These contracts are more likely to go to smaller, women and minority-owned businesses who may lack the resources to compete for larger [highway projects](#). And, as it becomes easier for people to choose transit or active transportation over driving, it becomes possible for more low-income households to escape the [financial burden of car ownership](#). This can also improve public health outcomes in frontline communities, who are exposed to [air pollution](#) and higher vehicle [collision rates](#) because of their [proximity to high speed and high traffic roads](#). Frontline communities are also most likely to suffer the immediate financial and human costs of extreme weather events. Investing in transportation infrastructure and transit service that meets the needs of nondrivers helps us reduce carbon emissions and [mitigate the climate crisis](#).

We believe that in order to plan for the transportation systems of our future, the transportation sector must recruit and hire nondrivers. Now is the time to include our expertise on every planning and policy team, on decision making boards and in executive leadership positions. Our experience using transit, door-to-door shuttles, pedestrian, and bike infrastructure can serve as the foundation for designing a transportation system that gets more people out of single-occupancy vehicles, helping us meet our public health, congestion relief, and carbon emission goals.

Click Below to Explore More

WATCH

Improving Access for All: Bringing On-Demand Technology to Paratransit

WATCH

Toward Universal Access: A Case Study in the Los Angeles and Puget Sound regions

READ

Op-Ed: From the Americans with Disabilities Act to Universal Design

About the Publisher

About Eno Center for Transportation

The Eno Center for Transportation is an independent, nonpartisan think tank whose vision is for a transportation system that fosters economic vitality, advances social equity, and improves the quality of life for all. The mission of Eno is to shape public debate on critical multimodal transportation issues and build a network of innovative transportation professionals.

Eno Board of Directors

James H. Burnley IV, Chairman

Jennifer Aument

Marjorie Dickman

Carolyn Flowers

Keith Parker

Mary E. Peters

Thomas F. Prendergast

Karen Rae

Jannet Walker-Ford

Martin T. Whitmer, Jr.

Diane Woodend Jones

Tay Yoshitani

Norman Y. Mineta, Emeritus

100 YEARS
Eno
Center for Transportation