

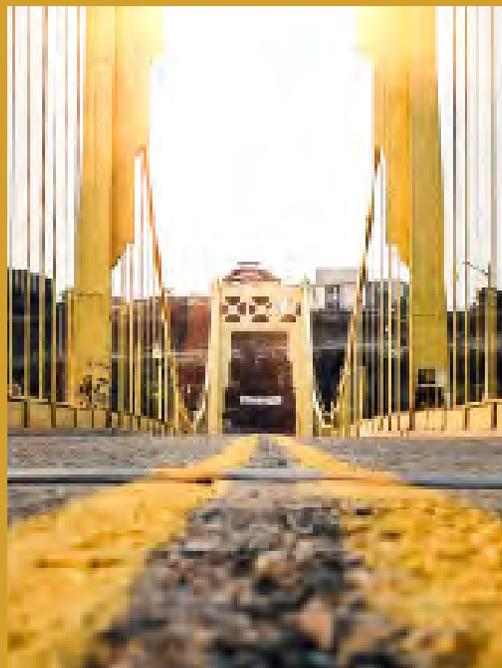
TRANSPORTATION RESEARCH  
**CIRCULAR**

Number E-C266

September 2020

# Transportation Asset Management in a COVID-19 World

*A TRB Webinar*



*The National Academies of*  
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# Transportation Asset Management in a COVID-19 World

*A TRB Webinar*

July 15, 2020

*Hosted by*  
Transportation Research Board

Transportation Research Board  
500 Fifth Street, NW  
Washington, D.C.  
[www.trb.org](http://www.trb.org)

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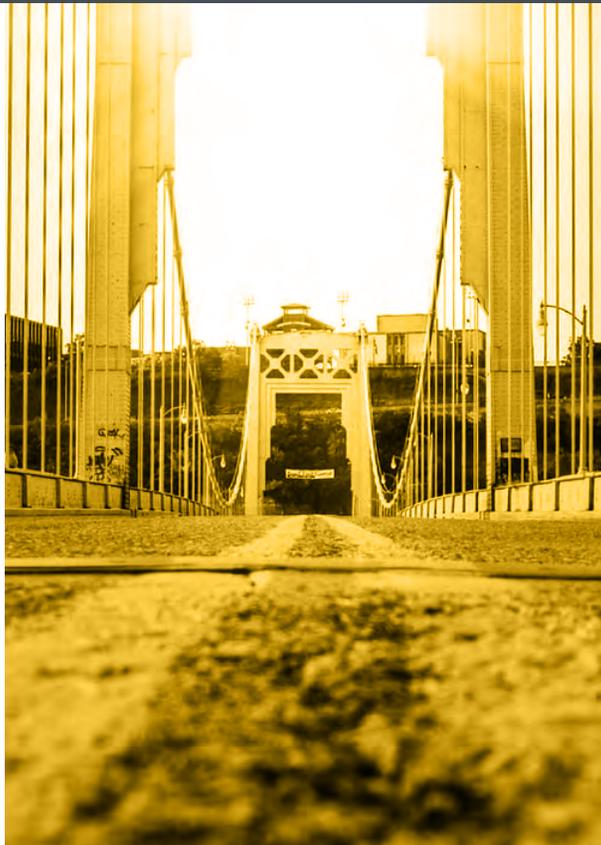
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# Transportation Asset Management in a COVID-19 World

100 YEARS **TRB**  
MOVING IDEAS: ADVANCING SOCIETY

A TRB Webinar



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# Preface

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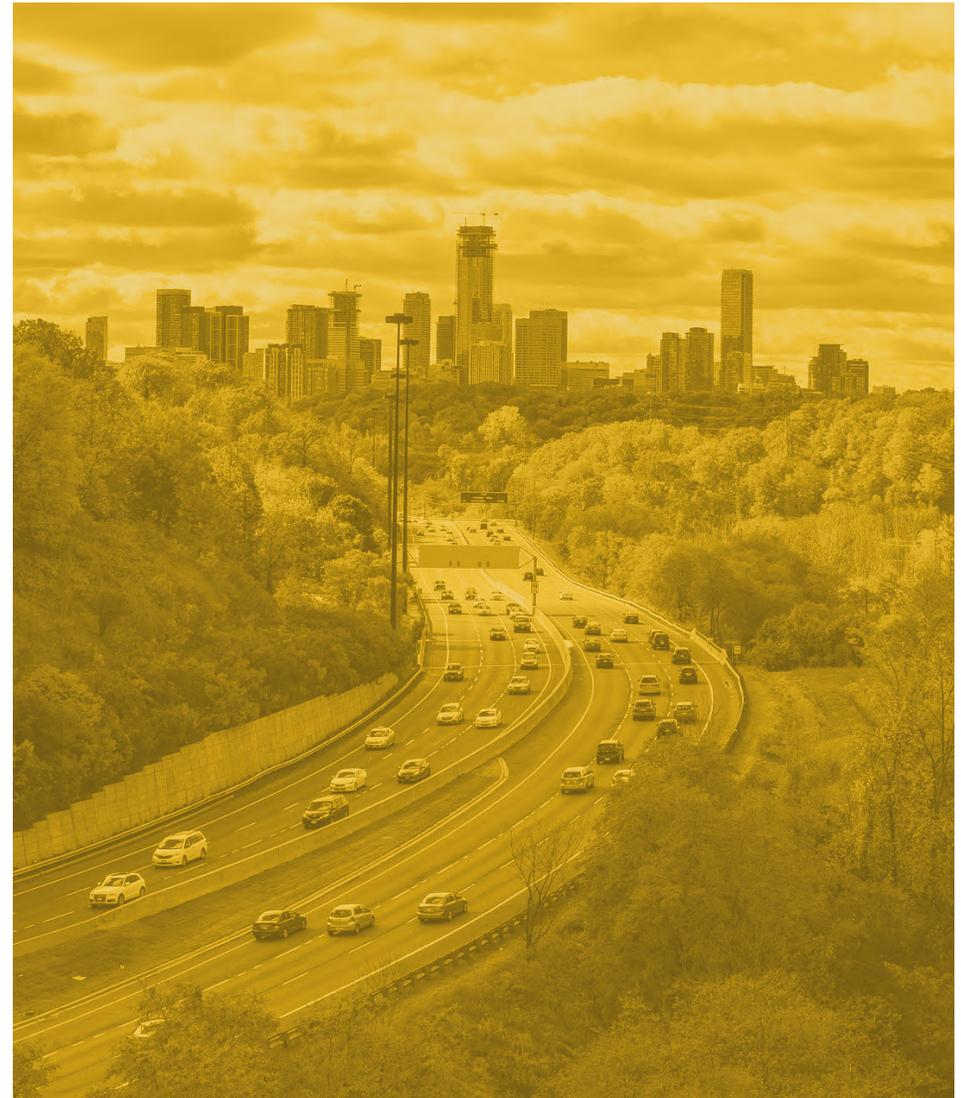
The 13th National Conference on Transportation Asset Management, scheduled for July 2020, was postponed until August 2021 due to the pandemic. The Standing Committee on Transportation Asset Management decided to hold a CEO webinar to set the stage for the 2021 conference. CEOs of three state DOTs, two transit agencies, and a regional planning organization were recruited for a virtual discussion. Webinar organizers thought that this discussion would help inform other transportation agencies about different impacts of COVID-19 on their assets.

Neil Pedersen, TRB Executive Director, framed the webinar with five discussion questions that he posed. They were as follows:

1. How significant has the financial impact from the COVID-19 pandemic been on your agency?
2. How is your agency responding as you prepare budgets for the upcoming fiscal year amid the uncertainty as to when things will return to “normal?”
3. How has your program been impacted during this time?
4. Looking into your crystal ball, what are some of the long-term changes that you would like to see your agency make based on lessons learned from the pandemic?
5. What has been a positive experience, or a positive lesson learned, from your agency’s response to the pandemic?

This summary was prepared by Rapporteur, Katie Zimmerman, Applied Pavement Technology, Inc., as a factual summary of what occurred at the webinar. The views contained in this webinar summary are those of individual conference participants and do not necessarily represent the views of all participants, TRB’s Standing Committees on Transportation Asset Management, TRB, or the National Academies of Sciences, Engineering, and Medicine. This publication has not been subjected to the formal TRB peer-review process.

TRB thanks the panelists for their participation in this webinar and for their review of this document. TRB also thanks Joe Schofer, Northwestern University, for his review. A recording of that discussion is now available at <http://www.trb.org/ElectronicSessions/Blurbs/180812.aspx>.



# Introduction

In the last few months, the COVID-19 pandemic has impacted transportation agencies across the United States in a variety of ways. On July 15, 2020, the Transportation Asset Management (TAM) Committee of the Transportation Research Board (TRB) hosted a webinar that featured executives and CEOs from state, regional, and transit agencies. The panelists in this webinar

discussed how the pandemic has impacted their agencies and their planned investments in the transportation systems they manage. These agency leaders manage a collective transportation system that includes roads, bridges, passenger and freight rail, buses, and more. The session was moderated by **Neil Pederson**, TRB's Executive Director.

## The Panelists



### LESLIE RICHARDS

General Manager,  
Southeastern  
Pennsylvania  
Transportation Authority  
(SEPTA)



### THERESE McMILLAN

Executive Director,  
Bay Area Metro (Bay  
Metro)



### CARLOS BRACERAS

Executive Director,  
Utah DOT (UDOT)



### GREG SLATER

Secretary,  
Maryland DOT (MDOT)



### JULIE LORENZ

Director, Kansas Turnpike  
Authority & Secretary of  
Transportation, Kansas  
DOT (KDOT)



### PAUL WIEDEFELD

General Manager & CEO,  
Washington Metropolitan  
Transit Authority (WMATA)

Collectively, these leaders manage transportation systems that include assets such as:



Roads



Bridges



Rail



Buses



Trolleys



Airports



Ports



Ferries



[Click here to watch the webinar](#)

# The Fallout

## Immediate impacts: dramatic decreases in revenues and users

In dealing with COVID-19, most panelists saw dramatic decreases in both revenue and users of their services. With different parts of the country being affected by COVID-19 at different periods, not all declines were seen at the same time. For many of these agencies, the shelter-in-place orders issued directly correlated to the decline in asset usage. Many of these agencies also had to contend with revenue decreases that are expected to impact future asset management strategies.



**Bay Metro**

In April, Bay Metro saw a 54% decline in toll traffic.



They have also reported revenue losses of 70% to 90% across all assets since April.



**UDOT**

UDOT's four urban counties saw traffic declines averaging 60%, while the rest of the more rural state saw less disruption.




**KDOT**

KDOT's state traffic declined 35%, while their toll system dropped 46% compared to the year before.




**WMATA**

WMATA also experienced declines in bus and rail usage.



Revenues dropped by 96% and the commercial side of their asset revenue shrank by 80%.



**MDOT**

MDOT was experiencing increases in travel before COVID, then dropped. Airports took the largest hit, plummeting 97% in April.



Revenues decreased by 22% overall.

**SEPTA**

SEPTA handled over a million trips a day before COVID, then saw a dramatic 70% drop, to just 300,000 daily trips.

They weathered losses of over 90% in revenue from declining ridership.




When there are hurricanes, or fires, or earthquakes—as dramatic and critical as they are—you have the disaster, and then you have a moment to say “**OK, what’s my damage,**” and how do I figure out how to start rebuilding? But there is no complete damage point yet with COVID, in terms of its impact, because it keeps shifting.

— **THERESE McMILLAN,**  
Bay Metro



# Three Months In

## Despite the challenges, panelists find room for optimism

Since the initial shock of the pandemic on the asset management programs of the panelists, 3 months later they have been able to report better metrics for their systems. While not returning to normal, all have found reasons for optimism while beginning to note potentially lasting changes.



### SEPTA

SEPTA's ridership is currently around 30% below pre-COVID numbers. It may take 2 to 3 years for ridership to return to normal.



### BAY METRO

The toll traffic for Bay Metro is down 25% to 30% percent of its usual metrics. The transit agencies in the area expect overall revenue losses of 70 percent for the year.



### UDOT

As UDOT's urban counties rebounded to about 90% of pre-COVID levels, new traffic patterns emerged. Morning commutes seem to be much lower while afternoons are experiencing swell—though these areas are less congested overall.



### MDOT

After the initial wave of the crisis, MDOT's vehicle traffic steadily increased by 3% per week. Airport traffic rebounded slightly to 32% of normal capacity, while the rest of transit is 61% below pre-COVID levels.



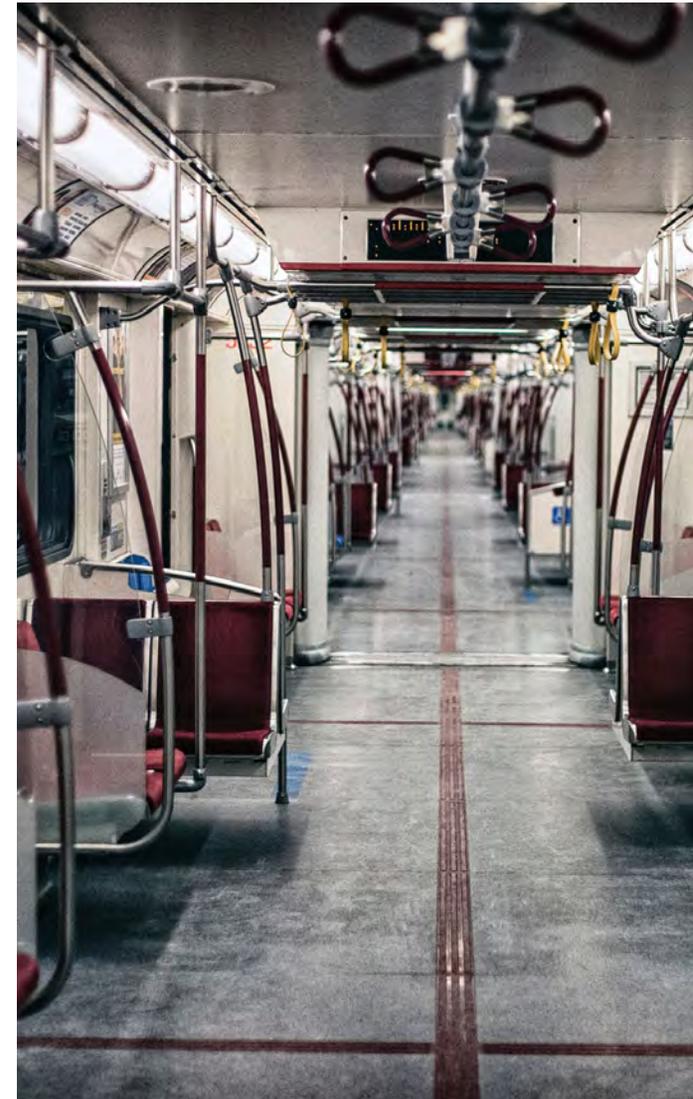
### KDOT

KDOT believes that taxes are helping to offset their losses but fear that their numbers are lagging behind real-time usage.



### WMATA

WMATA reported that busses came back slightly while the rail system still suffers for lack of passengers. They don't expect significant recovery until spring of 2021.



# Creative Solutions



Transportation matters to everybody. I think this came to everybody's attention more so now during this pandemic than ever before. When you think about when people notice us in transportation, they usually notice when things aren't working. And when everything is working, we're usually this behind-the-scenes type of thing and that's usually the way we want to be—not noticed.

— Carlos Braceras,  
UDOT



## Necessity, the mother of invention

Despite slight improvements in riderships and revenues, the pandemic is ongoing, so creative solutions are needed to address the agencies' shortages of revenues and travelers. Some changes involve organizational, programmatic, and procedural shifts to meet the new needs of their users. This webinar allowed the panelists to reflect on short- and long-term changes made in response to COVID-19.

## Adjusting to changes

- In order to meet the needs of rail users, **SEPTA** began operating only lifeline coverage, while ensuring operations never stopped running. They are currently offering 3-day passes—in addition to their normal 5-day passes—as a response to work-from-home policies. Leveraging technologies on

various assets allowed SEPTA to auto-count riders instead of relying on employees. Physical barriers were installed on all assets to increase safety for employees and riders.

- **WMATA** limited daily operations since one-third of its work force was absent on any given day. They are currently using this time to look at social equity and ensuring that demand and responsibility

are being met to combat disparities.

- To ensure safety, **MDOT** began to slightly over-program its transit. They opened motor vehicle offices to 50% capacity, which was controlled by having customers schedule appointments. MDOT also relies on its IT professionals to keep things moving behind the scenes as more staff work from home.

- **Bay Metro** responded by slowing down the pace of projects, keeping budget uncertainties at the forefront. Their rainy-day fund allows them to maintain infrastructure investment levels. Looking ahead, Bay Metro plans to pivot to a more scenario-based asset management approach.

- **KDOT** sees scenario planning as the key to the future of TAM. With the

rapid paradigm shift from office work to remote work, they believe agencies need to innovate as quickly as the private sector.

- While staying the course, **UDOT** continues to manage projects to ensure that they do not exceed actual revenue. They created dashboards for the legislature to track impacts in real time.



# Reflect and Assess

## How to plan for an uncertain future

Recent advancements in asset management programs champion strategic and systematic investments to preserve the value of system assets over their life cycles. Participants were asked to discuss how the pandemic impacted their agencies' programmed investments or how it might impact planned investments. The panelists recognized the challenges associated with the ongoing

uncertainty, while acknowledging that there currently is no definite end in sight. Two characteristics that make this crisis so challenging are: (1) its nationwide impact and (2) the lack of a clear endpoint to assess damage. Together, these features make the pandemic unlike anything the speakers had previously experienced.



Our philosophy continues to be to meet the investments on the capital side...As a region we understand we cannot go backwards there. But we also have to realize the pressure that we're under, particularly again, with our funding scenarios that the local government and state governments are under. So that will be a challenge for us going into the 2021 budget.

— **PAUL WIEDEFELD,**  
WMATA



You have to sustain the operation; you're investing in the system and the system has to exist. For us, that is the short game. What we have to do to recalibrate and find a new base line is a really critical step. As we all shared before, that is so much harder now...The impacts of telecommuting are at scales that are not fully understood...the ramifications of that are going to be extremely interesting in terms of the level of commute and mode shift that's going to be there. Does that impact in the longer term what our public transit system scale is and, for extension there, the amount of inventory we have to manage going forward?

— **THERESE McMILLAN,**  
Bay Metro



What is our planning horizon? It used to be so predictable...it's not really changed our focus, it has not really changed our philosophy, it just changed the parameters by which we have to implement that philosophy....The programs that are the most mature, the most mature asset management programs that we have, are best at adapting to those changing parameters...Pre-COVID the department's focus was very much on system preservation, using technologies, stability, and asset management. That is still the case, just the parameters on how we implement that has very much changed for us.

— **GREG SLATER,**  
MDOT



We're not asking all of the questions we need to ask about how people want to travel differently, or not travel at all... When I talk about more flexibility around our investments, that comes with the responsibility of more transparency and accountability... Lots of work to be done, but it then starts with scenario-planning and some big thoughts on how might the world work, and gives you a path forward on more flexibility.

— **JULIE LORENZ,**  
KDOT



We are using scenario-planning now...we looked at several different scenarios....we are looking at pandemic trajectory as well...we ran it with subsidies scenarios being reduced by 10%, 20%, which would be catastrophic for us...in the short term we know we have to win back our riders...we have to provide a safe environment.

— **LESLIE RICHARDS,**  
SEPTA

# Staying the Course



**Carlos Braceras** emphasized the importance of keeping the course with respect to planning investments in asset management.

## Good stewardship fosters trust

Asset management is the foundation for credibility that UDOT uses to build trust. Since 2001, UDOT has worked with the state legislature to reduce the burden of ownership, so costs are not passed on to the next generation. They provided investment-level needs and resulting outcomes, and explained why those are important to build a common understanding for the importance of ownership.

## Don't jump the gun

It is important to keep this business approach to managing their system because of the long view it affords. Braceras said it is too soon to plan a future based on the past 180 days because no trend lines can be established.

# People-First Mentality



To conclude the webinar, the panelists were asked if people could be seen as an asset when it comes to planning. The panelists highlighted the importance of both their employees as essential workers during the pandemic as well as the people who use their services. Rather than considering these people to be assets, the panelists viewed them as the most important part of the services they run.



**This pandemic hasn't been an optional activity—everybody**

**has to participate** ... what is our takeaway from this? Are we going to go try and find what we use to have or are we going to take some lessons from this and build towards the future? ... In two weeks' time we were able to move from 20 folks working remotely to 650 employees working remotely ... when we focus, we can innovate at the rate of the private sector ... we need to remember the communication and appreciation for our employees.

— **JULIE LORENZ,**  
KDOT



The biggest thing about our employees is that they're scared. They're

scared about their personal health and they're scared about the future ... things change pretty quickly. **The nature of people, they want to live together, they want to share things together, and that's what transit does best. It brings large amounts of people together and I don't see that changing.**

— **PAUL WIEFELD,**  
WMATA



As you think about your people and you

think about the situation we're in right now and how different it is, **I will emphasize the importance for more communication than you ever thought of before.** And doing it in a way where it's not an email, it's not a text, that is not communication on a personal level ... reaching out and making sure at least

every week, once every week, touching base and talking with everyone that's within your sphere, relationships that are important to you ... we're sending out communication 3 to 4 times a week on different issues we know employees are interested in ... understand what their wants and needs, what their fears are, both, and understand them as people before you try to understand them as employees.

— **CARLOS BRACERAS,**  
UDOT



Our people have been the unsung heroes of what

we've been able to do. I saw our transit operators show up every single day, I saw our maintenance crews show up every single day, and you can't take that for granted. I'm really proud of the hard work of our team ... We can't do what we do unless we focus on

our people ... **If you want to protect the supply chain? You want to protect mobility? You need to protect the people who make it run.**

— **GREG SLATER,**  
MDOT



**I would say all of us here are in the people**

**business, it's what we do** ... We have been seen as a true essential service, in ways we hadn't before, I think that is definitely a positive that has come out in the last few months. The resilience of our frontline workers in particular, that have shown up every single day, it's not so easy to do that and I don't think it's over dramatic to say it's truly an act of bravery to come to work every single day and be a front line employee. It is the responsibility of our employees, but also our

customers, it is shared ... to protect our community.

— **LESLIE RICHARDS,**  
SEPTA



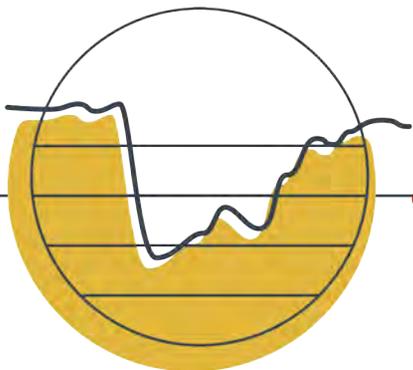
The lessons learned out of this have to be the relationships

with our people ... we don't do transportation to run empty buses, or empty trucks, or empty planes, people need to use them ... this crisis has impacted people very differently ... if there is a lesson learned about responding and **lifting up everyone, giving everyone the innovation and the option and the opportunity to climb out of this crisis** and have transportation help, if we keep that message front and center in our response coming out of this, we will have advanced transportation foundationally in this country.

— **THERESE McMILLAN,**  
Bay Metro

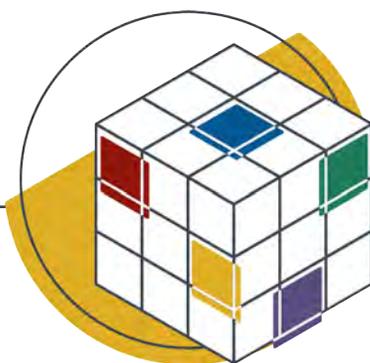
# Key Messages

Although the long-term impacts of the COVID-19 pandemic are not known at this time, several themes emerged to guide other transportation agencies as they move forward during this period of uncertainty. These include:



## Returning to normal

- It may take two to three years to return to pre-COVID levels as businesses continue work from home options, flexible work schedules, and delayed openings. — SEPTA
- Revenue forecasts are very uncertain, so look at a range of numbers and metrics to cover a range of situations. We anticipate gas tax revenue will recover faster than air traffic or rental car revenue, for example. — MDOT
- Telecommuting numbers will play the biggest role in the future. We do not expect it to ever go back to what it was before and that will impact the systemwide approach. — UDOT
- It is way too early to plan for a new normal. — UDOT



## Approaching the problems

- Participation has not been optional. — KDOT
- Investments are managed for the long-run and focusing on immediate battles that have to be addressed hurts the agency's people and culture long-term. **The focus is on understanding what you are trying to do for the future, not trying to score an easy win in the present.** — UDOT



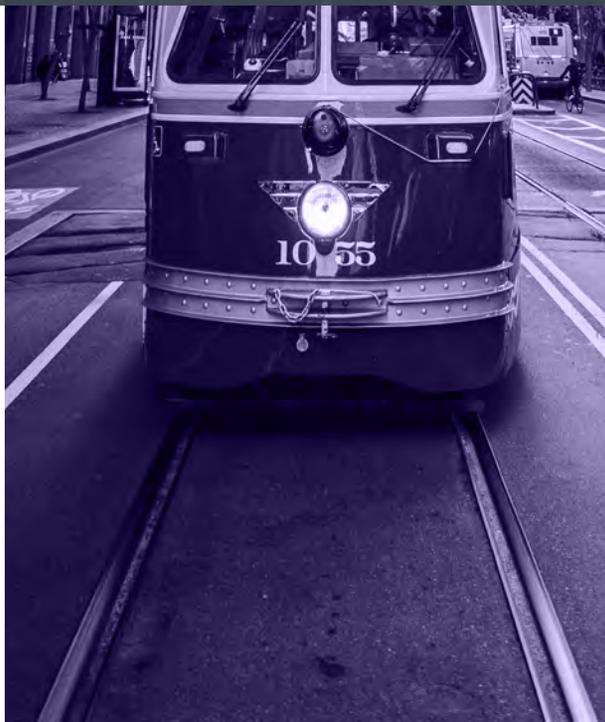
## Putting people first

- Transportation agencies have a shared responsibility between employees and customers. — SEPTA
- To protect mobility, you have to protect the people who make it run. — MDOT
- Communication is more important than ever before. — UDOT



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