# Active Transportation Safety Peer Exchange



# Summary Report April 2021









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# 1.0 Introduction

### 1.1 Purpose and Intent of the Peer Exchange

There is an increasing interest in active transportation among state DOT staff, the transportation sector, and the general public for several reasons. Active modes—most commonly walking and biking—can support efforts to reduce carbon emissions and pollution and improve air quality and public health (add citation). However, as explained below, road users relying on active modes remain vulnerable to serious injuries and even fatalities on our roadways.

To support the efforts of state departments of transportation (DOTs) and share best practices, the Center for Environmental Excellence (CEE)<sup>1</sup> hosted a peer exchange focused on active transportation safety in April 2021. CEE is operated by the American Association of State Highway Officials (AASHTO) in collaboration with the Federal Highway Administration (FHWA). CEE's mission is to promote environmental stewardship and encourage innovative ways to streamline the transportation delivery process. Active transportation is one of CEE's 11 practice areas. CEE offers resources to support active and multimodal transportation in livable and sustainable communities, including modes like walking, bicycling, and public transportation.

FHWA and AASHTO's Council on Active Transportation (CAT) and Committee on Safety (COS) also helped host the event. Together, these groups selected a Task Team to plan and execute the event. The peer exchange was held over three virtual sessions on April 14, April 21, and April 28, 2021. It covered a variety of topics, including data collection, asset management, project planning, and equity.

The peer exchange had a total of roughly 90 attendees representing 40 states and the District of Columbia. The event's virtual format allowed attendees to both hear a national perspective from leaders in the field and discuss their unique contexts with peers. Attendees shared the challenges they are currently facing and discussed how they are addressing these challenges and which strategies and solutions have been effective for improving safety outcomes for active transportation users in their communities.

### 1.2 Background on Active Transportation Safety

While there is not a consensus definition of "active transportation," the Centers for Disease Control and Prevention define it as "any human-powered, self-propelled mode of transportation that requires physical activity."<sup>2</sup> Some experts and organizations also consider bicycles

<sup>&</sup>lt;sup>1</sup> Learn more about the Center's work by visiting our website: <u>https://environment.transportation.org/</u>.

<sup>&</sup>lt;sup>2</sup> Centers for Disease Control and Prevention, "Transportation Health Impact Assessment Toolkit," accessed June 8, 2021, https://www.cdc.gov/healthyplaces/transportation/promote\_strategy.htm.

and scooters powered solely by or with the assistance of electric motors to be modes of active transportation (add citation if possible, maybe something about "human scale").

As noted above, the benefits of active transportation are clear, but supporting these modes presents a complex challenge for state DOTs. They must coordinate across multiple departments to implement the programs and policies that support safe active transportation. These operations also rely on a variety of state DOT staff, including transportation alternative planners, pedestrian and bicycle coordinators, and state safety engineers. State DOTs are also responsible for the protection of vulnerable road users in multiple plans and programs, most notably Bicycle and Pedestrian Master Plans and Highway Safety Improvement Programs.

Many Americans view walking and bicycling in their communities as unsafe due to heavy traffic and a scarcity of sidewalks, crosswalks, and bicycle facilities.<sup>3</sup> According to the National Highway Traffic Safety Administration Fatal Accident Reporting System, 17 percent of all fatal crashes (6,205 in 2019) involved pedestrians and two percent involved bicyclists (843 in 2019).<sup>4</sup> The data also show that crash fatalities and serious injuries to pedestrians and bicyclists have increased substantially since 2009.<sup>5</sup>

During the ongoing COVID-19 pandemic, there has been an increased demand for active transportation facilities due to people walking and biking outdoors instead of using public transit or other shared mobility options, and many state DOTs have implemented more of this infrastructure as a result (add citation or a note about it being anecdotal—her comment here is kind of ridiculous to me). However, road users relying on active modes remain vulnerable: a recent study conducted by the Governors Highway Safety Association (GHSA) showed a 20 percent increase in pedestrian fatalities in 2020, as shown in Figure 1.<sup>6</sup>



<sup>&</sup>lt;sup>3</sup> Ibid.

<sup>5</sup> Ibid.

<sup>&</sup>lt;sup>4</sup> Based on data from the Fatal Accident Reporting System, National Highway Traffic Safety Administration.

<sup>&</sup>lt;sup>6</sup> Governors Highway Safety Association, "Pedestrian Traffic Fatalities by State: 2020 Preliminary Data," accessed June 8, 2021, <u>https://www.ghsa.org/resources/Pedestrians21</u>.

# Though there were far fewer cars on the road in 2020, the pedestrian fatality rate (per 1 billion vehicle miles traveled) jumped



**Figure 1**. Infographic of pedestrian fatality rates per 1 billion vehicle mles travels comparatively by year, showing an increase by 20% in the first half of 2020. Source: GHSA Pedestrian Traffic Fatalities by State: 2020 Preliminary Data.

### 1.3 Development Process

Evidence like this was a major focus of the Task Team members as they developed the agenda for the peer exchange. The Task Team also performed a scan of available resources from the U.S. Department of Transportation (US DOT), the Transportation Research Board (TRB), state DOTs, and other organizations.

The Task Team identified and invited speakers from the state and federal level and developed a facilitation plan. In advance of the peer exchange, the Task Team also sent attendees a research review and other read-ahead materials (see Appendix C). Finally, following the event's conclusion, the Task Team prepared this report to summarize the event and highlight the key takeaways from the resulting discussions.

# 2.0 Agenda Overview

The peer exchange spanned three consecutive Wednesdays in April. Each day of the event lasted three hours, with one half of the agenda focused on subject matter presentations and questions from the audience, and the other half focused on small-group discussions and surveying attendees. The full agenda is provided in Appendix B and the read-ahead materials are listed in Appendix C. Each day of the event focused on a different topic:

- 1. Methods and Tools for Collecting Crash, Exposure, and Other Safety Data Related to Active Transportation Safety
- 2. The Role of Asset Management in Active Transportation Safety
- 3. Incorporating Safety, Equity, and Quick Builds into Capital Project Planning and Delivery

The peer exchange started with welcoming remarks from CAT Chair Toks Omishakin, Director of the California Department of Transportation (Caltrans); COS Vice-Chair John Milton from the Washington State Department of Transportation (WSDOT); and Shari Schaftlein, Director of the Office of Human Environment at FHWA. Each day of the event began with presentations from federal and state DOT staff, followed by a question-and-answer session with attendees. The remainder of each day focused on breakout groups of roughly 20 attendees each with prompted questions and designated note-takers. The key takeaways from these small-group discussions were then shared with the full group. Breakout group notes were also shared with attendees after the event. At the conclusion of the peer exchange, CAT Vice-Chair Melissa Batula, Acting Executive Deputy Secretary at the Pennsylvania Department of Transportation (PennDOT), provided a recap of the event and closing remarks.

# 3.0 Session Summary

Each day of the peer exchange provided opportunities to share best practices and discuss common challenges and potential solutions among state DOT staff and their federal partners. This section provides details of each day's activities, and each day's presentations are available on the Center's website.

### 3.1 Methods and Tools for Collecting Crash, Exposure, and Other Safety Data Related to Active Transportation Safety

#### 3.1.1 Presentations

The day started with a series of presentations sharing current FHWA information on risk assessment methods, followed by presentations about current programs at the Minneso-ta Department of Transportation (MnDOT) and Massachusetts Department of Transportation (MassDOT). The closing session provided an overview of best practices related to pedestrian infrastructure data from a recent NCHRP synthesis report: <sup>7</sup>

<sup>&</sup>lt;sup>7</sup> National Academies of Sciences, Engineering, and Medicine, "Availability and Use of Pedestrian Infrastructure Data to Support Active Transportation Planning," 2020, <u>http://www.trb.org/Main/Blurbs/181481.aspx</u>.

- Scalable Risk Assessment Methods for Pedestrians and Bicyclists (Mike Griffith and Darren Buck, FHWA)
- Intersection Risk Assessments and Statewide Risk Assessment (Derek Leuer, MnDOT)
- Crash and Risk Based Approaches to Safety in Massachusetts (Bonnie Polin and Jackie DeWolfe, Mass-DOT)
- Overview and Findings from NCHRP Synthesis 558: Availability and Use of Pedestrian Infrastructure Data to Support Active Transportation Planning (Michelle Morgan, Washington State DOT)

#### 3.1.2 Summary of Question-and-Answer Session

#### Funding Sources

MassDOT used a grant from USDOT to build two analysis modules: 1) network screening crash base and network screening risk base, and 2) the crash tree and test of proportions (which is still being developed). The network screening tool was presented in a pilot training session to 270 people that included police departments and local agencies looking at enforcement and safety awareness campaigns. Based on interest beyond engineering, MassDOT is making the tool available to other agencies, including Metropolitan Planning Organizations (MPOs). Additional information on innovative funding sources for developing these kinds of tools is available from the survey of practitioners in NCHRP Synthesis 558.

FHWA has a spreadsheet tool available on bicycle and pedestrian eligibility by federal-aid highway program category.<sup>8</sup> This includes an item for data collection, but not explicitly for analysis. FHWA also shared information on the results of a small-scale pilot grant on multimodal network connectivity, which will be shared publicly on their website in the near future.<sup>9</sup> In the post program survey, FHWA found that participating agencies would not have been able to support these efforts without the grant and thought the pilot program was very valuable.

#### Institutionalizing Consistent Data Sets Across Jurisdictions

When MassDOT first introduced their program, it worked with local police departments to review crash data in four specific cases. As a result, the agency ended up with better quality data. Establishing this feedback loop to see how data is being used has made agencies more inclined to provide and improve their data.

A presenter observed that it would be helpful to have standard schema to build upon, like those that exist for the Highway Performance Monitoring System or Highway Safety Improvement Program. This would provide agencies with some sort of standard to strive for, which

<sup>&</sup>lt;sup>8</sup> Federal Highway Administration, "Pedestrian and Bicycle Funding Opportunities," accessed June 8, 2021, https://www.fhwa.dot.gov/environment/bicycle\_pedestrian/funding/funding\_opportunities.cfm.

<sup>&</sup>lt;sup>9</sup> Additional information on the results of the multimodal network connectivity pilot grant will be available here: <u>https://www.fhwa.dot.gov/environment/bicycle\_pedestrian/.</u>

could be integrated with other federal standards. Once a standard has been adopted, it could be iterated on to adapt to changing needs and evolving knowledge.

#### Attendee Poll Question

During the question-and-answer portion of the agenda, attendees participated in a poll on methods and tools for active transportation safety data. There were 34 responses, and high-lights from the poll are listed below:

**Poll Question:** What active transportation safety data is most important to reducing fatal and serious injury crashes involving vulnerable road users?

- Accurate crash, behavior, exposure, risk, and causation data
- Data on crash victim disability and type
- ✓ Volume, speed, traffic stress, and origin and destination patterns
- Accessible and comprehensive cross-jurisdiction inventory of roadway and active transportation infrastructure with associated land uses to evaluate connectivity and context
- ✓ Use of third-party data sources like crowdsourcing and vehicle-sourced data
- Time series data to evaluate effectiveness of improvements over time
- ✓ Mapping high-injury and high-fatality locations across transportation networks
- Examination of hospitalization and other health outcomes post-crash
- Tools to measure tradeoffs between active transportation safety and mobility and congestion reduction
- ✓ Analytics to show where to concentrate attention and what countermeasures are effective
- Performance measures and benchmarking methods that can be stratified based on context and availability of data
- Simplified tools, models, and estimation techniques

#### 3.1.3 Summary of Breakout Group Discussions

Peer exchange attendees were divided into four groups to discuss their experiences collecting and understanding active transportation safety data. The following questions were provided to prompt discussion:

- What data, methods, and tools (could be software, mapping, or manual) does your agency use to understand active transportation safety-related issues?
- What overarching plans and policies does your agency have in place that guide active transportation safety? What plans and policies do you wish you had in place to improve active transportation safety?

- What information do you wish you had to better understand active transportation safety needs and improvements within your agency?
- What data standards, sets, tools, and/or guidance do you wish you had at a national level (such as AASHTO or FHWA) to help understand active transportation safety trends in your community?

#### Key Themes

#### **Data Challenges**

The breakout groups identified challenges surrounding data collection related to standardization of data, seamless transferability across platforms, and the use of interactive tools. Attendees also desired some flexibility in data structure, as opposed to complete standardization. In addition, they expressed an underlying concern that State DOTs have challenges translating local data sources and understanding how to incorporate and use crowdsourced data. States are using existing open portal applications and geographic information system (GIS) software (e.g., ARC GIS) to store and analyze active transportation data. They also highlighted the importance of maintaining and advancing programs by using software tools to validate forecast risk from primary data sources.

In addition, attendees identified specific types of data where gaps make it challenging to provide a full picture of active transportation safety: crash details, behavior, exposure, risk, and causation; crash victim disability and type; traffic data (e.g., volume, speed, traffic stress, land use connectivity, origin and destination patterns, etc.); and time-series data to evaluate the effectiveness of improvements over time. Instead of collecting all data in-house, the use of third-party data sources like crowdsourcing and vehicle-sourced data would support agencies' active transportation programs. There was also an interest in being able to examine post-crash health outcomes.

#### **Networks and Approach to Treatments**

Attendees observed that State DOTs are moving from a hot spot treatment approach to a systemic safety approach. This has led some State DOTs to look at first and last mile gaps in their active transportation networks in the context of their Complete Streets<sup>10</sup> policies. They have also examined right-sizing the network using road diets and other roadway design changes. Other less obvious gaps for active transportation included the need for lighting guidance.

#### **Policies**

Attendees noted that developing strong active transportation plans, among other policies, can influence roadway geometric design to accommodate pedestrians and bicyclists. Using

<sup>&</sup>lt;sup>10</sup> Complete Streets (def.): Complete Streets are streets designed and operated to enable safe use and support mobility for all users. Those include people of all ages and abilities, regardless of whether they are travelling as drivers, pedestrians, bicyclists, or public transportation riders. Source: U.S. Department of Transportation, "Complete Streets," <u>https://www.transportation.gov/mission/health/complete-streets</u>," accessed June 8, 2021.

Americans with Disabilities Act (ADA) transition plans to document where to provide accommodations can also support these efforts. However, it was also noted that connecting to and coordinating with local agencies' Complete Streets policies can be challenging.

In addition, there were concerns about policies evolving (or devolving) over time. For example, an agency with a strong asset management approach has changed its policy from building pedestrian accommodations into projects to requiring justification before assigning resources to non-roadway pavement items. Another agency noted that multiple related plans had been developed at different points in time and are now in conflict due to policy changes during that period. There was also an interest in understanding the methods agencies use to collect and disseminate information regarding active transportation improvements when policies change during the engineering development process for related projects.

#### **Support Needed**

Agencies that have recently adopted Complete Streets plans identified a need for guidance on how to start with data structures, processes, and organization. This could be addressed with Federal support, such as templates for data processes; guidance on consistent active transportation definitions applicable to safety, engineering, and operations; and guidance on the scalability of data between urban, suburban, and rural areas. One significant challenge identified by attendees is the fiscal and staff resources needed to create and maintain data structures and collaborate with agency information technology departments. It was also noted that a product of this type from AASHTO or FHWA would be helpful to state agencies.

There was a suggestion to further define active transportation data and incorporate it more meaningfully into Model Inventory of Roadway Elements (MIRE) guidelines and other standards and guidelines. This issue is challenging when there is not a MIRE requirement, as there can be reluctance at times to collect pedestrian and bike facilities data if not required by FHWA for reporting. Attendees observed that engineering staff can be more responsive to active transportation requests if they are included in references.

#### **Analytical Tools**

Lastly, attendees cited the need for simplified analytical tools, models, and estimation techniques to support active transportation safety, including those that map high-injury and high-fatality locations across transportation networks and measure tradeoffs with mobility and congestion reduction. These performance measures and benchmarking methods can show where to concentrate attention and whether countermeasures are effective if the needed data is available.



### 3.2 The Role of Asset Management in Active Transportation Safety

#### 3.2.1 Presentations

The day started with a series of presentations providing information on connecting ADA transition plans and active transportation safety to asset management:

- ADA Transition Plans and Asset Management (Melissa Anderson, FHWA)
- The Role of Asset Management in Active Transportation Safety (Jessica Downing, Caltrans)
- Asset Management's Role in Active Transportation Safety (Mary O'Brien and Dewayne Carver, FDOT)

#### 3.2.2 Summary of Question-and-Answer Session

#### Lessons Learned

Attendees noted that establishing data standards is an important part of supporting the use of GIS-based applications. One example of such standards includes determining which data fields and/or items are required, and which are just preferred. However, it was noted that agencies do not necessarily need to start with a GIS application. For example, even if states' data is stored in tabular spreadsheets (e.g., Microsoft Excel), they can still make progress by starting with what they have and moving forward.

#### ADA and Active Transportation Safety

There are examples of states that have incorporated ADA data, project development, and construction into their GIS system structure. For example, the Florida Department of Trans-

portation (FDOT) is adding ADA data into asset management system and looking at ways to break it up into manageable pieces to get started as they shift away from a database-based application to a GIS-based one. Similarly, the California Department of Transportation (Caltrans) developed a pilot program to inventory the state's active transportation facilities. Caltrans has found that this pilot has helped break down silos between different sets of information. However, although the pilot collected inventory data concurrently with ADA data, one of the outcomes was that the asset management condition rating for asset life differed from the condition rating for the extent to which assets meet ADA requirements.

#### Target Setting and Information from Local Agencies or Capital Improvement Program

FDOT is decentralized, so this kind of data is collected in one or two districts, as opposed to Statewide, and data is included as it becomes available. Statewide staff have found that the best way to collect and use this data is to coordinate with district GIS coordinators. However, it is important to note that this data is collected less often and less consistently than Road-way Condition Index data. Additionally, pedestrian facility plans may only be included in local and regional plans, rather than being translated upward to FDOT.

Caltrans is developing a transportation system replacement network, which will give the agency the ability to incorporate state and local data. District-level Active Transportation Safety Plans also include local and regional plan information as a GIS layer.

FHWA's Travel Monitoring Analysis System, which is currently voluntary, is collecting roadway volume information for pedestrian and bike data. A revised version of FHWA's *Travel Monitor-ing Guide* is also in development. In addition, a beta version of the National Bikeway Network is currently being tested; this network is a database to upload geospatial data on bikeways of all types using any type of geographic coding system.

#### Attendee Poll Question

During the question-and-answer portion, attendees were asked to participate in a Slido poll on the role of asset management in active transportation. There were 26 responses, some of which are shown below:



*Poll Question*: How does your agency currently inventory and maintain active transportation assets?





During the Slido poll, Wisconsin Department of Transportation (WisDOT) provided a link to an inventory map they maintain that shows ADA ramp and sidewalk inventory.<sup>11</sup> In addition, Wis-DOT has maps on rural highway bicycling conditions for state and county highways useful for planners, designers and people traveling by bike.<sup>12</sup>

#### 3.2.3 Key Themes of Discussion

Attendees were again divided in to four groups, this time with different attendees in each group, to discuss the role of asset management in active transportation safety among a smaller group of attendees to hear various perspectives from different State DOTs.

The discussion questions from the four breakout groups are provided below with a summary of the key themes that emerged from the discussion on the role of asset management in active transportation safety.

<sup>&</sup>lt;sup>11</sup> Wisconsin Department of Transportation, "Wisconsin State Highway Curb Ramps and Sidewalk ADA Inventory Database," accessed June 8, 2021, <u>https://wisdot.maps.arcgis.com/apps/webappviewer/index.html?id=98f74e8262e348b28ab8622e10532d90</u>.

<sup>&</sup>lt;sup>12</sup> Wisconsin Department of Transportation, "County Bicycle Maps," accessed June 8, 2021, <u>https://wisconsindot.gov/Pages/travel/bike/bike-maps/county.aspx</u>.

#### Breakout Group Questions:

- What tools and/or guidance do you wish you had from national organizations to help inventory and manage active transportation assets to improve safety?
- What safety evaluations are there related to inventorying and maintaining active transportation facilities within your agency?
- What active transportation assets do you currently inventory and manage maintenance? Also, to what level and what details do you inventory and manage maintenance?
- How are safety and asset management considerations evaluated in active transportation facility selection or retrofit?

#### Key Themes

#### Data

Several states are using mobile data collection with LIDAR<sup>13</sup> devices. However, agencies do not necessarily need to start with a high-tech program, and can instead use interns or entry-level staff to start some kind of pilot program that can then develop into a more advanced approach. Two states, Kentucky and North Carolina, have found that the active transportation inventory itself was not the most important information, but rather where pedestrian-fo-cused land uses exist and the potential exposure. Even without an inventory, agencies can still address with road safety analysis and hot spot analysis. It was also noted that there is a general lack of data, few if any centralized datasets, concerns about the frequency and consistency of data collection and questions around how to prioritize data in the decision-making process. Despite these limitations, State DOTs are utilizing a variety of data, including level of traffic stress, road context classifications, volume and exposure data, and specific attributes for individual assets. It was also noted that Maryland, Oregon, and Washington are part of the Transportation Data Equity Initiative, the goal of which is to supply sidewalk, transit path, and on-demand transit service information to support more equitable mobility options.

#### Guidance

There was interest expressed in updating MIRE to require pedestrian and bicycle data elements. Agencies are using the guidance from the *Traffic Monitoring Guide* and National Bikeway Network. However, there was a concern that if the documents change over time, maintaining compliance with requirements could be challenging for agencies.

#### **Process**

Attendees identified institutional barriers and the need to work across internal groups as challenge. In some agencies, for example, information for ADA curb ramps, shared use paths, and LIDAR data collection are all performed by different groups. Connecticut DOT requires

<sup>&</sup>lt;sup>13</sup> LIDAR (def.): Light detection and ranging which is a method to collect data by a method for determining variable distances by targeting an object with a laser and measuring the time for the reflected light to return to the receiver.

that all projects go through a pedestrian and bicycle improvement screening process prior to approval. Attendees also noted that there are opportunities to use reactive safety projects, mobility, and ADA data/compliance as catalysts for including equity considerations in project selection and public engagement. Use of more familiar tools and techniques, like road safety audits and pedestrian and bicycle analysis tools, has also been helpful.

### 3.3 Incorporating Safety, Equity, and Quick Builds into Capital Project Planning and Delivery

#### 3.3.1 Presentations

The day started with a series of presentations focused on multimodal connectivity, systemic safety analysis, and the importance of equity in the active transportation context:

- Measuring Multimodal Connectivity (Darren Buck, FHWA)
- Bicyclists and Pedestrian Systemic Safety Analysis (Sam Sturtz, Iowa DOT)
- Safety and Equity in Active Transportation (Jack Anninos, Georgia DOT)
- Active Transportation Safety + Equity + and Mobility at WSDOT (Barb Chamberlain, WSDOT)

#### 3.3.2 Summary of Question-and-Answer Session

#### Definition of Quick Build

Whether called quick builds, pilot projects, or tactical urbanism, short-term and temporary solutions are particularly important for active transportation safety. For example, Georgia (GDOT) is installing short-term pedestrian medians because the length can be adjusted and the materials won't hinder a later capital project. Generally, the threshold for considering projects to be quick builds is having a total cost of less than \$200,000. In Iowa, it is related to the state's Complete Streets policy and requires assessments for each project to determine whether pedestrian and bike accommodations meet the actionable thresholds. WSDOT has used special events to promote quick build projects. Attendees also noted that they have learned to leave quick build projects in place long enough to learn from them, and that accessibility can be a driving factor to get quick build projects in place.

#### Weighting of Equity Information in Project Prioritization

WSDOT noted that it will be doing more work on equity in the near future, as a new law on environmental justice passed the legislature and is awaiting the governor's signature. However, less than 50% of current Safe Routes to School and pedestrian and bike projects score high on equity.

Equity is also being incorporating into GDOT's Safe Routes to School projects, including factors such as the number of families with one or no cars, the number of students eligible for free or reduced-priced lunch, and the extent to which schools are located near each other. In hot spot locations, GDOT looks at general demographic information for quick build priority, and later reviews the details of demographics across state, county, district projects.

#### Trends in Safety Statistics

While WSDOT does not currently have data showing a decline in injuries, its speed management project to minimize injuries has led to several speed limit reductions. Similarly, it is too soon for lowa DOT to share data, but the state has now established systems to track future projects to determine whether they lead to improvements in safety outcomes. GDOT also noted that it is using some of the state safety budget money buying pedestrian improvements at the local level (e.g., for RRFBs).



#### Attendee Poll Question

During the question-and-answer session, attendees were asked to participate in the final Slido poll of the virtual peer exchange, this time on the topic of active transportation, safety, and equity. The resulting 26 responses led to this word cloud emphasizing the most frequently occurring responses: **Poll Question:** What are the greatest inequities you see in your state related to active transportation safety?



Figure 3. Word cloud results from poll question on equitable active transportation. Source: Slido/ITE.

### 3.3.3 Key Themes of Discussion

Attendees once again broke into four groups to discuss how State DOTs are incorporating safety, equity, and quick responses into capital project processes focused on active transportation. The following questions were asked during the breakout groups to prompt discussion:

- How can active transportation safety at a state level play a role in making communities more equitable?
- What information on active transportation safety does your agency report to the public, and how?
- What guidance do you wish you had at a national level (such as AASHTO or FHWA) to increase and/or improve equitable active transportation options in your state?
- How can reporting information to the public on transportation safety help improve safety, equity and create a positive traffic safety culture?

#### Key Themes

Equity

Attendees discussed how to define the core principles of "equity," as the term's definition varies widely and depends on the local context and character of each community. It was also noted that this variation supports the idea that overly prescriptive requirements around equity may be ineffective. For example, attendees highlighted that context sensitive solutions are particularly important in communities experiencing gentrification, tribal communities, and remote rural communities. Attendees also offered multiple ways to engage the public on equity and safety issues, including but not limited to advisory committees, statewide outreach efforts, nonprofit pedestrian and bicycle coalitions, media campaigns, and coordination with local elected officials.

In addition, attendees noted that there is new and changing terminology related to equity, such as "active transportation" and "vulnerable road users," which are not well enough understood and require outreach and support. Similarly, attendees noted that their agencies are starting to see equity considerations stipulated in grant applications, and they expressed an interested in understanding the scoring, relative weight, and tradeoffs between criteria related to safety, mobility, land use, and equity in current and future planning years.

Lastly, a poll of peer exchange attendees identified several inequitable factors in states' approach to active transportation and safety, including limited access to safe active transportation facilities, challenges associated with ADA compliance, the use of the 85th percentile of driving speeds to set speed limits, and a lack of data to evaluate policies and programs. Attendees also noted perceived tradeoffs facing State DOTs, such as weighing driving speeds and level of service against pedestrian safety, as well as balancing the transportation needs of denser urban areas and more sprawling rural ones.





# 4.0 State DOT Next Steps

At the close of the peer exchange, attendees were asked what their next steps within State DOTs should be to advance active transportation safety. Below are some examples what attendees said they would take back to their own State DOTs:

- Emphasizing equity data as a transportation need to justify incorporating facilities as part of improvement projects.
- Looking at quick builds as part of a larger infrastructure plan, as they do not hinder more permanent solutions but are not the only solution for areas with equity concerns.
- Examining methods for systemic safety analysis and screening methods to assist with action plans (e.g., Pedestrian Safety Action Plans, Pedestrian Bicycle Safety Action Plans, District Bicycle Pedestrian Facility Plans, context sensitive solutions, etc.).
- Continuing to push for changes in how the agency sets speed limits and advocating for transportation initiatives focused on more than just reducing delays.

Establishing and maintaining a comprehensive inventory of pedestrian and bicycle facilities on the state network with layers of demographic and land use information as a foundation for future project planning, equity considerations, and economic development.

# 5.0 Peer Exchange Key Takeaways

Below are the key takeaways from the peer exchange, which attendees identified as most important for advancing active transportation safety across State DOTs:

- The Safe System Approach and a focus on equity will be critical to ensuring safety of vulnerable road users.
- State DOTs around the country vary widely in the capability and maturity of their active transportation safety programs. Some programs are in their infancy, while others have advanced to the point of being an institutionalized part of the overall program.
- There is an interest in additional guidance from FHWA and AASHTO on various topics discussed throughout the peer exchange. Discussions focused on guidance at the national level highlighted MIRE and the Proposed Public Rights-of-Way Accessibility Guidelines (PROWAG), as well as general desire for more case studies of successful active transportation safety programs and methods across State DOTs.
- Data collection, data age and integrity, and local agency collection are all challenges to ensuring data quality that require resources in order to be addressed. Even with these challenges, agencies can begin with data already available and existing tools at their disposal to make an impact.
- There need to be consistent definitions of active transportation facilities and their condition and context. There is also a need for more intra-agency and inter-jurisdictional coordination to expand the availability of data.
- Prioritizing equity presents an opportunity to address gaps in active transportation networks, but more work needs to be done to determine how to measure and weight equity among other measures and criteria.
- For active transportation, projects that lend themselves to quick build solutions (e.g., separated bike lanes, pedestrian medians, bulb outs, etc.) are equally as important as long-range planning.
- It is important to invest in accommodating, including, and engaging all segments of the population across active transportation planning, projects, programs, policies, and funding.



# Appendix A

### **Presenters and Facilitators**

#### Task Team

Marty Baker, Deputy Director of Bicycle and Pedestrian Access, Maryland Department of Transportation

Darren Buck, Bicycle and Pedestrian Transportation Specialist, FHWA Office of Human Environment

Peter Haag, Chief of Traffic Engineering, Delaware Department of Transportation

Bonnie Polin, State Safety Engineer, Massachusetts Department of Transportation

Shari Schaftlein, Director, FHWA Office of Human Environment

Jeanie Ward-Waller, Deputy Director of Planning and Modal Programs, California Department of Transportation

#### **Presenters** (in order of presentations)

Toks Omishakin, Director, California Department of Transportation and Chair, AASHTO Council on Active Transportation

John Milton, Director of Transportation Safety and Systems Analysis, Washington State Department of Transportation and Vice Chair, AASHTO Committee on Safety

Shari Schaftlein, Director, FHWA Office of Human Environment

Mike Griffith, Director of the Office of Safety Integration, FWHA Office of Safety

Darren Buck, Bicycle and Pedestrian Transportation Specialist, FHWA Office of Human Environment

Derek Leuer, State Traffic Safety Engineer, Minnesota Department of Transportation

Bonnie Polin, State Safety Engineer, Massachusetts Department of Transportation

Jackie DeWolfe, Director of Sustainable Mobility, Massachusetts Department of Transportation Michelle Morgan, Information Technology Division Assistant Director, Washington State Department of Transportation

Melissa Anderson, ADA Program Analyst, FHWA Office of Civil Rights

Jessica Downing, Pedestrian and Bicyclist Safety Specialist, California Department of Transportation

Mary O'Brien, State Bicycle Pedestrian Coordinator, Florida Department of Transportation

Dewayne Carver, State Complete Streets Program Manager, Florida Department of Transportation

Sam Sturtz, Transportation Planner, Iowa Department of Transportation

Jack Anninos, State Bicycle and Pedestrian Engineer, Georgia Department of Transportation

Barb Chamberlain, Director, Active Transportation Division, Washington State Department of Transportation

Melissa Batula, Acting Executive Deputy Secretary, Pennsylvania Department of Transportation and Vice Chair, AASHTO Council on Active Transportation

#### **AASHTO Staff**

Melissa Savage, Director, AASHTO Center for Environmental Excellence

Phillip Burgoyne-Allen, Associate Program Manager, Environment and Active Transportation

Jenn Billo, Program Specialist for Environment

Kelly Hardy, Senior Engineering Program Manager for Safety

#### **Consultant Support**

Sarah Abel, Transportation Planning Director, Institute of Transportation Engineers

**Douglas Noble**, Senior Director of Management and Operations, Institute of Transportation Engineers

# Appendix B

## Peer Exchange Agenda

Acti GoTok	Vebinar Link: <u>https://global.gotowebinar.com/join/80900959</u> All proposed times are Eastern Standard Time Attendees are highly encouraged to use Q&A, chat, and polling fo	er Exchange
Wednesday,	April 14, 2021	
11me 12-12:30pm	Topic Welcome, Introductions, and Agenda Preview	<ul> <li>Speakers &amp; Facilitators</li> <li>Toks Omishakin, Caltrans, Chair, Council on Active Transportation</li> <li>John Milton, WSDOT, Vice Chair, Committee on Safety</li> <li>Shari Schaftlein FHWA</li> </ul>
12:30-1:30pm	<ul> <li>Topic 1: Methods and Tools for Collecting Crash, Exposure, and Other Safety Data Related to Active Transportation Safety</li> <li>30-40 minutes of presentations (10 minutes each)</li> <li>Presentation titles forthcoming</li> <li>20-30 minutes of Q&amp;A</li> </ul>	<ul> <li>Mike Griffith and Darren Buck, FHWA</li> <li>Jake Rueter, MnDOT</li> <li>Bonnie Polin and Jackie DeWolfe, MassDOT</li> <li>Michelle Morgan, WSDOT</li> </ul>
1:30-1:45pm	BREAK	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
1:45-2:30pm	<ol> <li>Roundtable: 4 Breakout Groups         <ol> <li>What data, methods, and tools (could be software, mapping, or manual) does your agency use to understand active transportation safety-related issues?</li> <li>What overarching plans and policies does your agency have in place that guide active transportation safety? What plans and policies do you wish you had in place to improve active transportation safety?</li> <li>What information do you wish you had to better understand active transportation safety?</li> </ol> </li> <li>What information do you wish you had to better understand active transportation safety needs and improvements within your agency?</li> <li>What data standards, sets, tools, and/or guidance do you wish you had at a national level (such as AASHTO or FHWA) to help understand active transportation safety trends in your community?</li> </ol>	• ITE and AASHTO staff facilitators
2.20.2nm	Roundtable Share-Out and Day 1 Close-out	Breakout group

### Peer Exchange Agenda (cont'd)



Center for Environmental Excellence by AASHTO One Stop Source of Environmental Information for Transportation Professionals

Time	Topic	Speakers & Facilitators
12-12:15pm	Day 1 Recap and Agenda Preview for Day 2	<ul> <li>Council or Committee representative</li> <li>Melissa Savage, AASHT</li> </ul>
12:15-1:15pm	<ul> <li>Topic 2: The Role of Asset Management in Active Transportation Safety</li> <li>30-40 minutes of presentations (10 minutes each)</li> <li>Presentation titles forthcoming</li> <li>20-30 minutes of Q&amp;A</li> </ul>	<ul> <li>Melissa Anderson, FHW.</li> <li>Jessica Downing, Caltran</li> <li>Mary O'Brien and Dewayne Carver, FDOT</li> </ul>
1:15-1:30pm	BREAK	
1:30-2:30pm	<ol> <li>Roundtable: 4 Breakout Groups         <ol> <li>What tools and/or guidance do you wish you had from national organizations to help inventory and manage active transportation assets to improve safety?</li> <li>What safety evaluations are there related to inventorying and maintaining active transportation facilities within your agency?</li> <li>What active transportation assets do you currently inventory and manage maintenance? Also, to what level and what details do you inventory and manage maintenance?</li> <li>How are safety and asset management considerations evaluated in active transportation facility selection or retrofit?</li> </ol> </li> </ol>	• ITE and AASHTO staff facilitators
2:30-3pm	Roundtable Share-Out and Day 2 Close-out	<ul> <li>Breakout group</li> </ul>
	<ul><li>Share-out (3 minutes each, 12 minutes total)</li><li>Closeout (15 minutes)</li></ul>	<ul> <li>representatives</li> <li>Council or Committee</li> <li>representative</li> </ul>

### Peer Exchange Agenda (cont'd)



Center for Environmental Excellence by AASHTO One Stop Source of Environmental Information for Transportation Professionals

#### Wednesday, April 28, 2021

Time	Торіс	Speakers & Facilitators
12-12:15pm	Day 2 Recap and Agenda Preview for Day 3	<ul> <li>Council or Committee representative</li> <li>Melissa Savage, AASHTO</li> </ul>
12:15-1:15pm	<ul> <li>Topic 3: Incorporating Safety, Equity, and Quick Builds into Capital Project Planning and Delivery</li> <li>30-40 minutes of presentations (10 minutes each)</li> <li>Presentation titles forthcoming</li> <li>20-30 minutes of Q&amp;A</li> </ul>	<ul> <li>Darren Buck, FHWA</li> <li>Sam Sturtz, Iowa DOT</li> <li>Jack Anninos, GDOT</li> <li>Barb Chamberlain, WSDOT</li> </ul>
1:15-1:30pm	BREAK	
1:30-2:15pm	<ol> <li>Roundtable: 4 Breakout Groups         <ol> <li>How can active transportation safety at a state level play a role in making communities more equitable?</li> <li>What information on active transportation safety does your agency report to the public, and how?</li> <li>What guidance do you wish you had at a national level (such as AASHTO or FHWA) to increase and/or improve equitable active transportation options in your state?</li> <li>How can reporting information to the public on transportation safety help improve safety, equity and create a positive traffic safety culture?</li> </ol> </li> </ol>	• ITE and AASHTO staff facilitators
2:15-3pm	<ul> <li>Roundtable Share-out and Peer Exchange Closure</li> <li>Share-out (3 minutes each, 12 minutes total)</li> <li>Closeout (30 minutes)</li> </ul>	<ul> <li>Breakout group representatives</li> <li>Melissa Batula, PennDOT, Vice Chair, Council on Active Transportation</li> </ul>

# Appendix C

### **Read-Ahead Materials**

Center for Environmental Excellence by AASHTO One Stop Source of Environmental Information for Transportation Professionals

# Active Transportation Safety Peer Exchange

#### Peer Exchange Overview

The Active Transportation Safety Virtual Peer Exchange is being hosted by AASHTO's Center for Environmental Excellence, in partnership with the Committee on Safety, Council on Active Transportation, and the Federal Highway Administration.

The peer exchange will focus on topics identified through a scan of existing research and by your State DOT peers, including: data, asset management, equity, and project planning and delivery. Please see the agenda for further details.

To aid your preparation for the peer exchange, we have compiled a list of resources to provide context for our discussions. Please review these resources before the peer exchange begins on April 14, 2021, at noon ET.

#### **Read-Ahead Material on Active Transportation Safety**

The U.S. Department of Transportation (USDOT) and the Centers for Disease Control <u>Transportation and Health Tool</u>

Indicators on Active Transportation and Safety

USDOT Safety Data Initiative

Federal Highway Administration (FHWA) *Guidebook for Measuring Multimod*al Network Connectivity

FHWA Safe Transportation for Every Pedestrian (STEP) Resources

National Highway Traffic Safety Administration (NHTSA) information on pedestrian safety, bicycle safety, and motorcycle safety

NHTSA Fatality Analysis Reporting System (FARS) 2018 Pedestrian Traffic Safety Fact Sheet 2018 Bicyclists And Other Cyclists Traffic Safety Fact Sheet

2018 Bicyclists And Onler Cyclists Traine Safety Fact Sheet 2018 Motorcycles Traffic Safety Fact Sheet Fatality and Injury Reporting System Tool (FIRST)

AAA Foundation for Traffic Safety Examining the Increase in Pedestrian Fatalities in the United States, 2009–2018

National Safety Council Motor Vehicle Injury Facts, including data on crash types involving pedestrians and "pedalcycles"

Smart Growth America <u>Dangerous by Design 2021</u>, including the full report, interactive map of pedestrian fatalities, and state rankings of the Pedestrian Danger Index (PDI)

League of American <u>Bicyclists 2018 Benchmarking Report on Bicycling</u> and Walking and <u>benchmarking data</u>

Rails to Trails Conservancy <u>Addressing Safety and Health Concerns to Increase</u> <u>Active Transportation</u>

Safe Routes National Partnership at the Intersection of Active Transportation and Equity

<u>Understanding the Role of Equity in Active Transport Planning in the United</u> <u>States</u>

NCHRP Synthesis 558 <u>Availability and Use of Pedestrian Infrastructure Data</u> to Support Active Transportation Planning and Research Report 941 <u>Bicyclist</u> Facility Preferences and Effects on Increasing <u>Bicycle Trips</u>

National Highway Institute Bicycle and Pedestrian Facility Design Courses

Center for Environmental Excellence <u>fact sheet</u>, active transportation <u>topic</u> page, and relevant case studies from <u>Connecticut DOT</u> and <u>PennDOT</u>

# Appendix D

### AASTHO CEE Peer Exchange Slido Poll Results—DAY 1

#### Session 1 Poll—April 14, 2021

What active transportation safety data is most important to reducing fatal and serious injury crashes involving vulnerable road users?

#### Asked during closing remarks—34 results

Accurate crash data and accessible roadway data

Complete, low stress active transportation networks with good route directness are a key safety strategy. To that end, we need to know where we have sidewalks, bike lanes, marked crosswalks, LPIs, protection islands, etc. to understand how complete those networks are. The information needs to be available across jurisdictions because AT networks may involve state, county and city ROW.

Comprehensive inventory of infrastructure

Connectivity

Crash and exposure data

**Crash causation** 

Crash data

Crash data

Detailed crash data

Exposure and risk factors

Exposure data

Exposure data

Exposure measures

Exposure measures, volume data, speed information, origin/destination patterns

Get auto industry to capture bike/ped data so that greater information is known about interactions, reactions, etc. to better inform how we plan and think about the safety of all modes.

Help with the tradeoffs between items. Recently we are trying to advocate for more frequent and smaller intersections, versus something like a DDI for example.

High injury network mapping

How to measure tradeoff between active transportation safety and mobility/con-gestion reduction

I think it is important that we look at all crash types (not just fatal and serious). Considering all active transportation crashes can help us understand the true safety issues.

Information reported to hospitals if injury was caused by motor vehicle

It might be useful to collect data on

whether pedestrians involved in traffic incidents have disabilities and what type of disability. Targeting accessibility improvements can benefit safety of those users.

#### Land use and origin/destination

Level of traffic stress ... and linear data to show effectiveness of countermeasures

Look at all crashes that involve vulnerable road users. Look at engineering of the road as well as behavioral issues being part of the crash.

More so analytics to show where to concentrate attention and what to do Performance measures/benchmark methods that can be stratified based on context and availability of data

Reliable, representative crash data for crashes that do not involve vehicles

Roadway risk factors and context data

Simplified tools/models

Speed

Speed and crash data

Speed and exposure/volume data

Target speed

Volume data and future estimation

### AASTHO CEE Peer Exchange Slido Poll Results—DAY 2

#### Session 2 Poll—April 21, 2021

How does your agency currently inventory and maintain active transportation assets?

#### Asked during speaker Q&A, 26 results

At the beginning phase, visually verified facilities to determine infrastructure gaps.

Contracted out statewide collection of bike ped data using desktop and windshield survey, supplemented by field collection of pedestrian pathways and curb ramps.

Currently collecting data (inventory and condition) via LIDAR for shoulders, sidewalks, crosswalks, in addition to roadway on entire state system. Currently working on it.

Database called Roadway Characteristics Inventory (RCI), eTraffic website, GIS

It doesn't but I'm interested in how others are dealing with data.

MnDOT also uses a partner-based reporting method for Counties to share bicycle infrastructure conditions on their roadways or locally-owned shared use paths through a crowd-sourced ArcGIS Online map application.

MnDOT expects completion of transition plan in 2037

No comprehensive inventory exists. We just completed a sidewalk inventory available in ArcGis

Partial inventory, and assets maintained in general by state forces

SCDOT—Visually. We are actively pursuing a LIDAR-based option.

Sidewalks Inventory w ADA noncompliance identified. It is a GIS layer but becomes outdated very quickly. It was originally done in the field. We have difficulty getting new sidewalks that we're built by developers online. Also difficult to keep up with new deficiencies as deterioration occurs.

Through the Department's Roadway Inventory System.

To my knowledge no federal inventory exists.

Visually and added layer in ArcGIS and track percentage of available infrastructure in a Excel spreadsheet by reference points.

We are in the inventory stage. We have location data for all curb cut ramps and are in the process of filling out condition/compliance fields for each of them as part of our ADA transition plan. Our Title II coordinator works in our Office of Safety as well and is part of our Safety/ Mobility Committee

We do visual inventory methods. We are currently evaluating contracts to use lidar based methods.

We do not have an agency wide system for tracking AT assets. We have bike lane data, but it is not necessarily complete. We started to collect sidewalk data for state highways in population centers during the pandemic. The process involves manual inspection of imagery and drawing geometry in GIS. There are is an ongoing discussion of mobile lidar as a potential tool to collect data. There is a recognized need to collect data from adjacent local systems as well.

We have a pilot inventory of bike/ped assets and some roadway infrastructure in a database but not detailed or mapped

We only have curb ramps inventoried as part of our ADA transition plan

We're developing a strategy now. Several elements are in place, but it is evolving

We used a segue-like device to measure noncompliance issues for pedestrian assets on on-system roadways.

We use GIS for ADA curb ramps and some other features, but are working on expanding to encompass more assets.

We use GIS. Had an intern inventory all of MnDOT sidewalk system taking measurements every 50 ft recording cross slope and sidewalk quality. As well as ped ramps.

We use LIDAR and have inventory of sidewalks and bike lanes in GIS format.

We've completed an entire inventory of barriers on facilities owned by the Transportation Cabinet as a part of our ADA Transition Plan. This will be refined and updated as projects are completed and inspected.

WisDOT has developed an interactive map as part of our ADA Transition Plan, see the Interactive Map at the following link https://wisconsindot.gov/Pages/ doing-bus/civil-rights/titlevi-ada/ADAcompliance.aspx. While not a inventory per se the department also has developed maps on rural highway bicycling conditions (for state and county highways) https://wisconsindot.gov/Pages/ travel/bike/bike-maps/county.aspx this is useful information for planners, designers and people traveling by bike.

WisDOT maintains its inventory of curb ramps post construction, after each

construction season we're collecting data on curb ramp attributes that then updates the ArcGIS interactive map. We have a paper process currently and have been testing using the ArcGIS Online (AGO) Collector app. Primarily this effort is focused on curb ramps. And then this is annually updated/reported out as part of our transition plan.

WYDOT has a roadway features database. Unfortunately, it is not as up to date as it should be.

### AASTHO CEE Peer Exchange Slido Poll Results—DAY 3

What are the greatest inequities you see in your state related to active transportation safety?



Asked during closing session,	High Speed Vs. Ped Safety
22 participants, word cloud results	High Speed Vs. Ped Safety
\$\$\$ follows squeaky wheel	Infrastructure lacking
85th percentile	Interstates divided areas
85th percentile	Lack of crossing opportunities
Access	Land use
Access	Liability
Access to necessities	LOS
Access to necessities	LOS v safety
ADA	LOS v safety
ADA	LOS v safety
Arterials	LOS v safety
Availability of modes	LOS v safety
Complete trips	LOS v safety
Completing networks	Misunderstanding of AT
Concern	More suburban poverty
Consensus within DOT	Motor vehicles
Cost	Networks
Cost of transportation	No asset data
Divided highways	No asset data!
Documented crash history	No exposure data
Driver education	No marked crosswalks
Economic	No volume data
Engagement	Non-motorists
Funding	Only cars
Gentrification	Pavement needs
High Speed Vs. Ped Safety	

Poverty	Speed limits (85th)
Redlining	Speeds
Reliance on counts	Speeds
Rules on gas tax expenditures	State v local
Rural	Suburban road safety
Rural vs urban	System Gaps
Rural vs urban	Time
Rural vs. Urban	Transit
Safe routes	Unclear maintenance responsibility
Safety v mobility	Users don't pay = no improvements
Sidewalks	Vulnerability

#### Session 3, Poll 2–April 28, 2021

What is a next step you will take back to your agency to advance active transportation safety from this peer exchange?

# Asked during Q&A and again during closing session, 22 participants

Advance equity within all projects, not just AT.

Amplify Peer Exchange compiled info

Checking data resources and their gaps.

Continue to push for changes in how we set speed limits and advocate for less delay-reduction-centric transportation initiatives, like traffic calming projects, Open Streets initiatives, etc.

Continuing to implement ped/bike safety demonstration projects on state high-ways.

Emphasis on equity data as a transportation need to justify incorporating facilities as part of improvement projects

Establishing and maintaining a comprehensive inventory of pedestrian and bicycle facilities on the state network as a foundation for future project planning, equity considerations, and economic development

Focus on context sensitive solutions.

Getting our crash data turned into a map with demographic overlays. That will tell a compelling story.

How do we define equity as an agency?

Methods for systemic safety analysis and PSAP

NDDOT is currently reviewing the "Tier 3 Bike Network" roadways that do not have 5 foot shoulders and prioritizing the areas needing improvements.

Need to have a discussion on how equity is defined in our state

Publish recommended facility data schema so that we can set ourselves up for more standard data collection across the state in the near-term for better asset data in the longer term

Quick builds are part of a larger plan. They don't hinder more permanent solutions. Quick builds should become the final answer just because they are inexpensive. Also if quick builds occur more often in areas with equity concerns, those areas shouldn't remain priorities for final solutions. There is a risk of seeing more transportation disadvantaged areas covered in quick builds and more advantaged areas with Mercedes solutions.

Research potential systemic safety analysis to develop a screening method

Review FDOTS context classification document more closely to see how we

can better ID contexts for planning and projects development

Share with various FHWA workgroups working on the topics.

Strategies to develop and maintain data about bike/ped infrastructure (To inform ongoing efforts to upgrade our evolving GIS platform).

The need to have accurate data to influence change.

Use the info to inform long range planning or other policy documents.

We are currently working on a PBSAP

We are working on District Bicycle Pedestrian Facility Plans, and I have already brought up how what Caltrans and one of the other presenters is doing and how I'd like us to consider it as well. For example mapping Walmarts and Dollar Stores. I will continue to refer back to this peer exchange as we work on our Plans. We are certainly interested in incorporating equity more. Thank you!

What gets measured gets done, and we need data to measure. Let's get some data!







https://environment.transportation.org