

**EQUITY IN TRANSPORTATION INFRASTRUCTURE:  
CONNECTING COMMUNITIES, REMOVING BAR-  
RIERS, AND REPAIRING NETWORKS ACROSS  
AMERICA**

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**HEARING**

BEFORE THE

SUBCOMMITTEE ON TRANSPORTATION  
AND INFRASTRUCTURE

OF THE

COMMITTEE ON  
ENVIRONMENT AND PUBLIC WORKS

UNITED STATES SENATE

ONE HUNDRED SEVENTEENTH CONGRESS

FIRST SESSION

MAY 11, 2021

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COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

ONE HUNDRED SEVENTEENTH CONGRESS

FIRST SESSION

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**EQUITY IN TRANSPORTATION INFRASTRUCTURE: CONNECTING COMMUNITIES, REMOVING BARRIERS, AND REPAIRING NETWORKS ACROSS AMERICA**

TUESDAY, MAY 11, 2021

U.S. SENATE,  
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,  
SUBCOMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE,  
*Washington, DC.*

The Committee met, pursuant to notice, at 10:03 a.m. in room 216, Hart Senate Office Building, Hon. Benjamin L. Cardin (Chairman of the Subcommittee) presiding.

Present: Senators Cardin, Cramer, Carper, Duckworth, Kelly, Padilla, Lummis, Boozman, and Sullivan.

**OPENING STATEMENT OF HON. BENJAMIN L. CARDIN,  
U.S. SENATOR FROM THE STATE OF MARYLAND**

Senator CARDIN. This hearing of the Transportation and Infrastructure Subcommittee of the Environment and Public Works Committee will come to order.

Let me acknowledge that this is our first hearing for the Subcommittee in this Congress, and I want to thank specifically Senator Carper and Senator Capito, our Chair and Ranking Member of the full Committee, for their support of our Subcommittee and the work that we are doing and allowing us to conduct this hearing today.

I want to thank Senator Cramer and his staff for helping us put together today's hearing.

I look forward to working with Senator Cramer and other members of the Subcommittee as we take on the important work of this Congress in regard to infrastructure. We will have a unique opportunity to act on a 5 or 6 year surface transportation reauthorization bill. That allows us to take up not only the funding level, but many of the issues concerning infrastructure in America.

We can talk about many issues from multimodal capacities to adequate maintenance to adaptation and climate issues. There are certainly a lot of issues that need to be talked about as we look at the reauthorization bill.

Today's hearing will deal with Equity in Transportation Infrastructure: Connecting Communities, Removing Barriers, and Repairing Networks Across America. This is obviously a very important subject, and one which I welcome today's witnesses to help us in our discussion.

The building of our national highway system from the 1950s was, in many ways, a great national achievement: A major public investment in our infrastructure that transformed our country and that we continue to rely on today. But for far too many communities, especially communities of color, ethnic communities, and urban centers, the construction of our highways has had traumatic and destructive impacts. Rather than connecting their communities and expanding their opportunities, highway construction brought demolition, displacement, isolation, and exclusion.

The siting of highways was sometimes done under the banner of seemingly noble goals of urban renewal and removing blight, but sometimes also with overtly racist intentions of cutting off and segregating. In reality, it destroyed thriving communities, homes, and businesses and tore apart social networks. These highway projects often made it more difficult for people in these communities to re-establish stable livelihoods, achieve personal and economic progress, and build wealth in the decades that followed.

The city of Baltimore is intimately familiar with this painful history of highway planning and highway building. It has experienced it firsthand. It lives with the legacy today. African Americans in Baltimore were disproportionately affected. Between 1951 and 1964, about 90 percent of all housing displacements occurred in Baltimore Black neighborhoods.

There were many plans for numerous highways to be built in Baltimore City. The city would have lost some of its neighborhoods that are now cherished and an integral part of our city. The Inner Harbor would have been devastated by a giant highway interchange.

All of this would have happened to a much greater extent if it was not for a coalition of advocates who raised their voices in opposition to these plans. Among those voices was my friend and former Senate colleague, Barbara Mikulski, who is known to have entered politics through the fight over highways through her involvement in the Movement Against Destruction. These advocates and community leaders were able to save 28,000 housing units from demolition, mostly in minority and ethnic communities, which is Baltimore's strength, but they were not able to save all neighborhoods from the bulldozers.

Part of the highway plan for Baltimore was to have an east-west corridor connecting I-70 coming in from the west to downtown Baltimore. It was meant to facilitate commuting by car from the suburbs, and in the eyes of some, like Robert Moses, to clear out what they saw as slums.

This east-west highway was never completed, but it still did damage. African Americans were disproportionately impacted with 3,000 residents, mostly Black, uprooted in the late 1960s to make way for this highway that was never completed. Today, this highway to nowhere is a barrier and an impediment, a source of pollution, not convenience. Occupying a 30 foot trench, this massive roadway in the Franklin-Mulberry Corridor in West Baltimore separates and isolates neighborhoods such as Harlem Park from other parts of the city.

This is the legacy of infrastructure that is felt in cities across the country and that we must now reckon with today. By removing

barriers that are no longer useful, we can help reconnect communities to opportunities, improve their health and safety, and make daily life better.

I am proud to join Senator Carper, our Chair, in supporting the Reconnecting Communities Act, a bill that would establish a Federal program to support the planning and implementation of projects to remove infrastructure barriers, such as the Mulberry-Franklin Corridor in Baltimore City, barriers that have clearly outlived their usefulness, but remain a burden to our neighborhoods.

Let me quote from my former colleague and dear friend, the late Congressman John Lewis, when he told us, “The legacy of Jim Crow transportation is still with us. Even today, some of our transportation policies and practices destroy stable neighborhoods, isolate and segregate our citizens in deteriorating neighborhoods, and fail to provide access to jobs and economic growth centers.”

A report in the New York Times last year highlighted how the urban heat island effect disproportionately impacts communities that were redlined. These communities can be 5 to 12 degrees hotter on summer days than areas in the same city that enjoy more favorable housing policies. The article described a mother with two young kids trekking more than a mile on foot just to get to a park with some shade.

Our past highway investments have left too many Americans in low income communities to navigate acres of asphalt and cross lanes of roads that serve only fast moving vehicle traffic just to take care of their daily needs: To buy groceries, to get their kids to childcare, or to connect to transit to get to work.

For too many Americans, transportation infrastructure has created stressful, unsafe, and unhealthy conditions, and that is why we must build back better.

We also see inequity in the data that suggests that communities of color disproportionately bear the burden of pollution and health and safety risks from transportation. In the most recent Dangerous by Design report, Smart Growth America found that between 2010 and 2019, Black Americans were struck and killed by drivers at an 82 percent higher rate than White, non-Hispanic Americans.

We know that investing in transit is a key part of addressing inequity in transportation, and in Maryland, we have a lot of work to do to expand and upgrade our transit system. But our roads and streets and related safety policies also play a critical role. Because this Committee has specific jurisdiction over our highway program, our focus today is on how we can improve this area of our transportation policy to address equity.

I am proud to author the Transportation Alternatives Program, a critical component of our surface transportation programs. This program ensures that a segment of our Federal transportation funding supports the priorities of local communities for carrying out projects such as bike lanes, pedestrian infrastructure, and safety improvements.

TAP funds were used in Baltimore in regard to the Leakin pathway that reconnects communities that were not connected together so that people can really enjoy their neighborhoods.

We need to do more to build in the Transportation Alternatives Program and give more opportunities for cities and local communities to guide resources that they need.

I applaud President Biden for making transportation equity a centerpiece of the American Jobs Plan for investing in our Nation's infrastructure. This plan calls for us to address our legacy of past infrastructure projects, and it calls for 40 percent of the benefits of our climate and clean infrastructure investments to go to disadvantaged communities.

In addition, he signed, on January 20th, an Executive Order on Advancing Racial Equality and Support for Underserved Communities through the Federal Government. This Executive Order calls on Federal Government agencies to assess whether underserved communities and their members face systemic barriers to accessing benefits and opportunities available pursuant to those policies and program. This is a step that is critical for our transportation.

Poor transportation infrastructure has limited the opportunities for disadvantaged communities, creating and perpetuating inequity, contributing to poverty, poor health, low employment, and poor and insufficient housing conditions. In contrast, good transportation infrastructure provides an opportunity to enhance the lives of many and to help sustain their communities. That should be our goal as we look at the transportation reauthorization act.

With that, I recognize my distinguished Ranking Member, Senator Cramer.

**OPENING STATEMENT OF HON. KEVIN CRAMER,  
U.S. SENATOR FROM THE STATE OF NORTH DAKOTA**

Senator CRAMER. Thank you, Chairman Cardin. Thanks for holding this important hearing.

I was thinking, as you started your comments, that if Carper, Capito, Cardin, and Cramer can't solve this problem, nobody in the alphabet can.

[Laughter.]

Senator CRAMER. One of the things I have appreciated most about serving on the Environment and Public Works Committee is the bipartisan consensus we strive to achieve and often do. We often do. It is not very sexy, but we often strive for and achieve consensus.

On a personal note, I have especially enjoyed working with you on legislation to support things like clean nuclear energy, and refining our PPP forgiveness process to better serve both lenders and borrowers. I wanted to serve as the Ranking Member on this Subcommittee to further the cooperation that has historically driven infrastructure policy, really, over the years and the decades.

It is my hope that we can continue the trend by crafting a reauthorization bill that meets the priorities of North Dakotans and Marylanders alike. Despite our geographic and political differences, all of our constituents understand the importance of roads, bridges, and waterways and the role they play in fostering economic development and interstate commerce.

No doubt, many of North Dakota's agricultural products make it into Annapolis restaurants, or they are shipped out of the Port of Baltimore, and that benefits both States and everyone in between.

My point being, of course, if we keep the main thing the main thing, I believe we have a road to success on this reauthorization.

That brings us to today's hearing: Equity in Transportation Infrastructure.

Mr. Chairman, one of the aspects I appreciate most about EPW is the statutes under our jurisdiction reinforce federalism. Highway policies and projects are coordinated between the State and Federal Government rather than dictated from the Federal Government to the States.

In fact, Mr. Chairman, I appreciated your comments during our last hearing on the solvency of the Highway Trust Fund, when you had an exchange with a witness regarding how a VMT would fit within a federalist model. It was a great point on your part, and it highlights how we are all very cognizant of the States' role in this equation.

Typically, infrastructure projects start from the grassroots and work their way up to the State and then the Federal level. That is why this Committee, along with AASHTO and State Department of Transportation officials, which I am glad to see we have two here today, have consistently supported distributing Federal dollars via formula so every State can be responsive to both interstate commerce needs within their borders and community connectivity issues.

My point being, there are multiple examples of poor planning decisions that have led to adverse consequences for specific communities. None of us deny that, and I think we all agree they should be rectified. I believe it should be done at the local and State level, where decisionmakers are closest to the people and able to make a balanced decision. If a new route, expansion, or removal is necessary, that should be done through the State planning process with the formula dollars allotted to them, not a new discretionary grant that pulls from the limited pool of funding within the Highway Trust Fund.

With that being said, Mr. Chairman, I have always advocated for going big in this infrastructure package. Last Congress, we all supported the passage of the largest highway bill in history, and I have no problem breaking that record again this time around.

However, the current proposal to deal with the issue at hand, the Reconnecting Communities Act introduced by Chairman Carper, would take \$15 billion out of the Highway Trust Fund to establish a new discretionary grant. I don't object to \$15 billion being added to an infrastructure package, but how it is dispersed is key.

As you all know, the current formula versus discretionary split is roughly 90 percent formula to 10 percent discretionary. That is the policy today, and retaining it is one of the top requests from AASHTO and many members of this Committee, including me. If we were to pass the Reconnecting Communities Act while following the current 90 to 10 distribution, it would require \$135 billion be added to the formula side of the ledger.

Similarly, rather than creating a new discretionary grant, if we were to distribute the proposed \$15 billion via traditional formula, we would not be picking winners and losers among States. Rather, this would allow each of them the flexibility to be responsive to their communities.

If we went this route, it equates to roughly \$95 million to North Dakota and millions, if not billions, in the case of California, more for every other State in the union.

It goes without saying, but Federal highways exist for interstate commerce. Planning decisions to reroute or remove portions of the system should not be made lightly and should take into account every interested party and the potential repercussions or even unintended consequences of those actions.

Again, I would reiterate, the State is best equipped to manage these requests, not a Federal bureaucrat parsing through grant applications, determining which applicant meets the political objectives of whoever is in charge.

Last, Mr. Chairman, the most prominent examples I have seen are in urban settings, as you describe. But if you put the issue of equity in a rural context, those communities are not struggling with obtrusive infrastructure that gets in the way; rather, they are dealing with a lack of infrastructure connectivity.

H.R. 2 and the Reconnecting Communities Act both limit new capacity or new miles being added to the system, effectively shutting out rural and tribal communities who need new access, not less.

Thank you again, Mr. Chairman, for holding this hearing, and I look forward to discussing these issues and listening to the witnesses before us.

Senator CARDIN. Senator Cramer, thank you for those comments, particularly our ability to find a way to work together, which has been the history of the Environment and Public Works Committee. I agree with you completely.

Just as a way of background, I served 20 years in the State legislature with 8 years as speaker. I served on President Reagan's Federalism Task Force, so I share your strong belief that decisions made at the local level on transportation are certainly the best decisions. We do have interstate and national priorities, but we very much have to protect the ability of local communities to make those decisions.

So thank you very much for your comments, and I look forward to working with you.

All four of our witnesses today are very distinguished. They are appearing before this Committee virtually; they are not here in person, so we will try to use the technology the best that we possibly can.

Most of the members that are going to be participating in this Committee will also be doing it virtually, so I hope that we all can bear with the technology.

Let me introduce two of our witnesses, then I will recognize Senator Cramer to introduce the two other witnesses that we have on the panel today.

Toks Omishakin is the director of the California Department of Transportation. We have a State director, which I think can give us some very important information, but the director also has on his resume that he is a graduate from the University of Maryland College Park, which, to me, shows good sense on his undergraduate degree. He is also a founder of a planning consulting firm in the DC area, so he knows the DC area very, very well.

Veronica Davis is the Director of Transportation and Drainage Operations in the city of Houston. We welcome her to the Committee to give us the perspective from Houston. She also served the Nashville transportation system, so she has broad experience in local government and understands the multimodal challenges that we have.

Now, let me recognize Senator Cramer to introduce the last two witnesses, and then we will turn it over to Director Omishakin.

Senator CRAMER. Thank you, Mr. Chairman.

Dr. Steven Polzin is with us today, and he completed his appointment as a senior advisor for research and technology in the Office of the Assistant Secretary for Research and Technology at the Department of Transportation in early 2021. Previous to that, he served as Director of Mobility Policy Research at the Center for Urban Transportation Research, University of South Florida.

Prior positions include working for transit agencies in Chicago, Cleveland, and Dallas and has experience in front line agencies involved in carrying out and complementing transportation services. He has served on the board of directors for Hillsborough Area Regional Transit Authority and on the Hillsborough County Metropolitan Planning Organization Board. His professional interests include transportation policy, travel behavior and travel demand, transportation system performance, travel data analysis, transportation decisionmaking, and public transportation.

In July of this year, Dr. Polzin will assume the position of research professor TOMNET University Transportation Center School of Sustainable Engineering in the Built Environment, Arizona State University in Tempe. Dr. Polzin is a civil engineer with a B.S.E. from the University of Wisconsin Madison and Masters and Ph.D. degrees in civil engineering with a focus on transportation from Northwestern University, and I look forward to learning from his Federal and academic experience.

Bill Panos is my friend and the North Dakota Director of Transportation. He formerly served in the same role for Wyoming, so probably Senator Lummis could introduce him even better than me. I would also note that while Bill is with the North Dakota Department of Transportation, his testimony has been agreed to and is on behalf of five rural States, including North Dakota, South Dakota, Wyoming, Montana, and Idaho.

So, welcome, Bill, and thanks to you for sharing your expertise with the Committee today.

Since coming to North Dakota, Bill has been a breath of fresh air, providing excellent advice and help to me and to my team. I have had the pleasure of bringing multiple North Dakota witnesses to EPW and have been looking forward to getting Bill's expertise before EPW, and look forward to his expertise.

Senator CARDIN. Thank you for those introductions.

For all four of our witnesses, your entire statements will be made part of our record, so they are included in the record. We ask that you summarize your testimony in approximately 5 minutes, leaving time for questions by members of the Committee.

We will start with Director Omishakin.

**STATEMENT OF TOKS OMISHAKIN, DIRECTOR,  
CALIFORNIA DEPARTMENT OF TRANSPORTATION**

Mr. OMISHAKIN. Good morning Chairman Cardin, Ranking Member Cramer, and members of the Committee. I am Toks Omishakin, Director of the California Department of Transportation, also known as Caltrans, the largest State Department of Transportation in the Nation.

I am honored to be with you remotely and part of today's important conversation.

Equity and transportation have long been intertwined. Transportation is a critical and deciding issue, as it determines whether or not people have access to work and to essential goods and services.

Transportation policies and spending programs do not benefit all populations equally. Historically, transportation policies have also prioritized highway development, some of which were built by dividing minority and low income populations. These and other transportation policies have had inequitable outcomes.

This approach has also been enshrined in our funding decisions, in which a focus of transportation dollars has been on expanding roads. This needs to shift in a way that transportation is truly built back better for all.

Low income families and people of color, people who are less likely than the average Californian to have access to a personal automobile, have been left behind by investments in infrastructure, limiting access to jobs and economic opportunities, social and educational opportunities, health care services, places of worship, and other important destinations such as even the grocery store.

Further, the burdens of poor road conditions are disproportionately shouldered by communities marginalized by transportation infrastructure. Overall, minority and underserved communities experience fewer benefits and take on a greater share of negative impacts associated with our transportation systems.

Because of this, transportation equity is not just a transportation issue. To improve equity across the board, we must address transportation in an equitable fashion. To do that, we need to listen to communities affected by inequity and implement change accordingly by altering the way we evaluate and make investments in transportation, but we can't fix what we won't face.

As a starting point for conversations underway at Caltrans, our department, we have expressed our commitment to achieving transportation equity, as articulated in our Statement of Commitment. That statement says, "We will achieve equity when everyone has access to what they need to thrive, starting with our most vulnerable, no matter their race, socioeconomic status, identity, where they live, or how they travel. To create a brighter future for all Californians, Caltrans will implement concrete actions as outlined in our Race and Equity Action Plan, regularly update our Action Plan, and establish clear metrics for accountability in order to achieve our commitments."

At Caltrans, we recognize our leadership role and unique responsibility in a State of more than 39 million people that supports the fifth largest economy in the world. We strive to eliminate barriers and provide more equitable transportation for all in California. This understanding is the foundation for intentional decision-

making that addresses past harms and endeavors to prevent future harms from our actions.

We must work in collaboration with all of our stakeholders toward developing effective solutions, such as: No. 1, expanding public transportation to meet the needs of a diverse and aging population, including quality transit service in rural communities.

No. 2, developing and investing in passenger rail and transit projects that support inclusive high road job development opportunities in the trades, and specifically the clean transportation sector to address the disproportionate effects of pollution on minority and underserved communities.

No. 3, invest in safer multimodal and active transportation facilities on community highways, trails, and streets, enhancing maintenance and operations investments on all highways and prioritizing underserved rural communities, including tribal governments, and finally, literally bridging the divides that highways have created.

Paramount to an equitable transportation network is achieving structural integrity, not just in a physical sense, but metaphorically, within all the transportation departments' identities.

I would like to end with an inspirational quote from Nelson Mandela: "Vision without action is just a dream; action without a vision just passes the time, and vision with action can change the world." We can and will change this world together.

Thank you very much for having me today. I look forward to your questions and hearing from my fellow witnesses.

Thank you very much.

[The prepared statement of Mr. Omishakin follows:]

Toks Omishakin, Director, California Department of Transportation  
Statement to:  
United States Senate Committee on Environment and Public Works  
Transportation and Infrastructure Subcommittee Hearing  
May 11, 2021  
10: 00 am EDT/7:00 a.m. PDT

Subject: Equity in Transportation Infrastructure: Connecting Communities,  
Removing Barriers, and Repairing Networks across America

Good morning Chairman Cardin, Ranking Member Cramer, and members of the committee.

I am Toks Omishakin, Director of the California Department of Transportation. I am honored to be with you remotely and part of today's important conversation.

Equity and transportation have long been intertwined. Transportation is a critical and deciding issue, as it determines whether or not people have access to work and to essential goods and services.

Transportation policies and spending programs do not benefit all populations equally. Historically, transportation policies have also prioritized highway development, some of which were built by dividing minority and low-income populations. These and other transportation policies have had inequitable outcomes.

This approach has also been enshrined in our funding decisions, in which a focus of transportation dollars has been on expanding roads. This needs to shift in a way that transportation is built back better for all.

Low-income families and people of color, people who are less likely than the average Californian to have access to a personal automobile, have been left behind by our investments in infrastructure, limiting access to jobs and economic opportunities, social and educational opportunities, health care services, places of worship, and other important destinations such as the grocery store. Further, the burdens of poor road conditions are disproportionately shouldered by communities marginalized by transportation infrastructure. Overall, minority and under-served communities experience fewer benefits and take on a greater share of negative impacts associated with our transportation systems.

Because of this, transportation equity is not just a transportation issue. To improve equity across the board, we must address transportation equity.

To do that, we need to listen to communities affected by inequity and implement change accordingly by altering the ways we evaluate and make investments in transportation.

But, we can't fix what we won't face. As a starting point for conversations underway at Caltrans, we have expressed our commitment to achieving transportation equity, as articulated in our Statement of Commitment:

*We will achieve equity when everyone has access to what they need to thrive — starting with our most vulnerable — no matter their race, socioeconomic status, identity, where they live, or how they travel. To create a brighter future for all Californians, Caltrans will implement concrete actions as outlined in our Race and Equity Action Plan, regularly update our Action Plan, and establish clear metrics for accountability in order to achieve our commitments.*

At Caltrans, we recognize our leadership role and unique responsibility in this state of more than 39 million people that supports the fifth-largest economy in the world. We strive to eliminate barriers and provide more equitable transportation for all travelers in California. This understanding is the foundation for intentional decision-making that addresses past harms and endeavors to prevent future harms from our actions.

We must work collaboratively with all of our stakeholders towards developing effective solutions, such as:

- Expanding public transportation to meet the needs of a diverse and aging population, including quality transit service in rural communities.
- Developing and investing in passenger rail and transit projects that support inclusive, high-road job development opportunities in the trades, and specifically the clean transportation sector to address the disproportionate effects of pollution on minority and under-served communities.
- Investing in safer multimodal and active transportation facilities on community highways, trails, and streets.
- Enhancing maintenance and operation investments on all highways and prioritizes under-served and rural communities, including tribal governments.
- And literally bridging the divides that highways have created.

Paramount to an equitable transportation network is achieving Structural Integrity—not just in a physical sense, but metaphorically, within all transportation departments' identities.

I would like to end with an inspirational quote from Nelson Mandela, "Vision without action is just a dream, action without vision just passes the time, and vision with action can change the world." We can and will change this world together.

Thank you very much for having me today. I look forward to your questions and hearing from my fellow witnesses.

**Senate Committee on Environment and Public Works**  
**Subcommittee on Transportation and Infrastructure**  
**Hearing Entitled, “Equity in Transportation Infrastructure: Connecting Communities,**  
**Removing Barriers, and Repairing Networks across America”**  
**May 11, 2021**  
**Questions for the Record for Director Omishakin**

**Senator Kelly:**

1. As you know, one of the legacies of transportation planning over the past 50 years is that underserved communities often lack access to quality public transportation, while often suffering the worst negative health effects from air pollution caused by our transportation infrastructure. Fortunately, recent planning efforts in some communities have sought to address both challenges simultaneously. For example, the City of Tucson, AZ is proposing a new 15-mile, bus rapid transit project – the first in the city – which will serve neighborhoods that have suffered historic underinvestment. This project will both provide greater transportation connections, while reducing vehicle emissions. I understand CalTrans has taken steps to support the development of similar projects throughout California, through your Sustainable Transportation Equity Project (STEP). What lessons have you learned from the STEP program about how to pair transportation equity projects with investments in sustainable infrastructure?
  - a. How could Congress replicate these efforts in the upcoming surface transportation reauthorization bill?

Director Toks Omishakin's Response:

The Sustainable Transportation Equity Project (STEP) program is administered by the California Air Resources Board (CARB), not by the California Department of Transportation (Caltrans). However, Caltrans' Low Carbon Transit Operations Program Manager reviewed projects for CARB's inaugural STEP pilot program. Thus, Caltrans and CARB coordinated on the response to the question below. For additional information on the STEP program, here is CARB's point of contact:

CARB Contact Information:

Annalisa Schilla

Chief, Community Action Branch

Phone: (916) 322-8514

Email: [annalisa.schilla@arb.ca.gov](mailto:annalisa.schilla@arb.ca.gov)

Website: <https://ww2.arb.ca.gov/our-work/programs/low-carbon-transportation-investments-and-air-quality-improvement-program-1>

**What lessons have you learned from the STEP program about how to pair transportation equity projects with investments in sustainable infrastructure?**

1. The STEP program engages priority communities in the planning, design, implementation and evaluation of projects that develop a holistic approach to transportation. STEP projects address residents' community transportation needs. This includes access to key destinations, availability of various modes of travel, transportation cost, and impacts and benefits of the project to the community. Impacts and benefits can include, for example, effects on displacement, air quality, jobs, and the economy. STEP projects can also fund workforce training and apprenticeships in priority communities. This includes workforce training related to zero-emission technology, such as training on installing and maintaining charging infrastructure and maintaining zero-emission vehicles. Applications for STEP funding for transportation equity projects aim to address structural gaps caused by systemic poverty and racism that have disenfranchised many communities from decisionmaking and resulted in disproportionate environmental burdens, as well as, health and economic disparities.
2. Balancing equity-related issues and sustainable transportation alternatives can vary by transportation project type. There is a need for programs to provide an equity index or resource guide to identify common linkages that the transportation equity projects aim to address.
3. Transportation equity projects can be cost prohibitive and the demand for STEP projects vastly exceeds the available funding. While the funding for STEP has provided assistance, including financial leverage for other grant programs, an annual appropriation specifically targeting equity should be strongly considered. Further, to document progress and provide

accountability, such a program should have regular reporting on outcomes and include measurable program targets.

4. Multi-jurisdictional agency coordination should also be standard for all transportation equity projects. State and local agencies that oversee housing, transportation, commerce, community centers, non-profits, and businesses should integrate equity analyses into the development and implementation phases for transportation equity projects. This could be limited to projects over a set threshold where this level of coordination is required (e.g., for projects over \$1 million).

5. Congressional Recommendations:

We recommend creating a targeted transportation equity grant program funded by a portion of the Congressionally-appropriated transportation funding. This could be a formula-based program to provide each state with necessary resources to address the transportation and housing deficiencies that are often linked. The program should target reducing emissions and improving accessibility for marginalized and underserved communities.

Senator CARDIN. Director, thank you very much for your testimony.

We will now hear from Director Davis.

**STATEMENT OF VERONICA DAVIS, DIRECTOR, TRANSPORTATION AND DRAINAGE OPERATIONS, CITY OF HOUSTON**

Ms. DAVIS. Good morning, Chair Cardin, Ranking Member Cramer, and members of the Subcommittee on Transportation and Infrastructure. On behalf of Mayor Sylvester Turner, Houston Public Works Director Carol Haddock, and the 2.3 million residents of Houston, I really want to thank you for the opportunity to testify today.

My name is Veronica O. Davis, and I am the Director of Transportation and Drainage Operations within the city of Houston's Public Works Department. I have oversight of over 16,000 lane miles, 3,500 storm miles of storm sewer, 3,600 miles of ditches, and 33 stormwater detention basins.

I am here in my official capacity for the city of Houston, but I also serve on the board of America Walks, and I am the Houston representative to the National Association of City Transportation Officials. I will cite both in my testimony today.

We are having this conversation because the end result of decades of inequitable decisionmaking are negative public health impacts, such as asthma, obesity, serious injury, and fatalities that disproportionately affect low income communities and communities with large populations of Black, Hispanic, and Indigenous people. For the purposes of this testimony, I will focus on serious injuries and fatalities.

As cited earlier, in *Dangerous by Design*, which examines pedestrian fatalities across the Nation, it recognizes where pedestrians are disproportionately being hit, and in this Committee that represents States that are at the top 20 most dangerous for pedestrians: No. 2, Alabama; 4, Mississippi; 7, Arizona; 8, South Carolina; 14, Oklahoma; 15, Arkansas; 16, California; 18, Maryland; and 19, Michigan. Texas is No. 10, and unfortunately, the Houston region ranks 18th most dangerous for pedestrians across the Nation.

What does this have to do with equity? When you look at the data, as cited earlier, it disproportionately affects Black Americans and American Indians. In addition, when holding constant for population, we are seeing that the rates are comparable in rural areas.

Equity is about everyone getting what they need. However, for my fellow transportation officials, we all know too well that the needs of our cities exceed the money, staff capacity, and time resources available to us.

If you examine any major city, the findings will be almost identical. At the root is race based segregation compounded with decisions by planners, my fellow engineers, and elected officials to put highways and wide roads through minority and low income communities.

Houston, like many other cities, has the same story. In 2017, Mayor Sylvester Turner created the Complete Communities Initiative to redirect current city and Federal resources to communities

that are under-resourced. The Complete Communities Initiative was established to be collaborative, impactful, and transformative.

The present day Federal surface transportation policy continues to incentivize construction of high speed, autocentric roads at the expense of other modes. As a member of NACTO, I have worked with my colleagues to develop a list of priorities, speaking to four today. The Reconnect Communities Act: Like many cities, Houston has numerous infrastructure barriers.

In addition to highways built in the 1960s and 1970s, Houston has 13 freight lines that merge near our downtown, two major freight rail yards on the north side of downtown, and more than 700 at grade crossings. All pose safety risks to people walking and biking and require retrofit, and we ask for consideration when looking at the Reconnect Communities Act.

Empowering cities to realize their vision: We with NACTO have been advocating for Congress for direct funding to cities to give us control over State administrated projects within our borders.

Create a pedestrian priority set aside within the Surface Transportation Block Grant: The set aside should be explicitly for sidewalks, curb ramps, crosswalks, Americans with Disabilities Act transition plans, and roadway/street narrowing.

Last, incorporating funding for resiliency: Socially vulnerable residents within Houston face greater challenges recovering from extreme events. Incorporating resiliency can increase our project costs as much as 30 percent.

As a keeper of the roadways in Houston, I have a responsibility to the public. Mayor Turner has called for a paradigm shift. This shift includes taking affirmative steps to right historical injustices by designing a multimodal transportation network that is inclusive of all people and needs. I recognize every decision today will impact the future generations.

Thank you for your time and attention to this important topic. I look forward to hearing from my fellow witnesses, and I look forward to answering any questions that you all may have.

Thank you.

[The prepared statement of Ms. Davis follows:]



**Date:** May 7, 2021  
**To:** U.S. Senate Subcommittee on Transportation and Infrastructure  
**From:** Veronica O. Davis, PE  
**Subject:** Testimony of Veronica O. Davis, PE of Transportation & Drainage Operations for the City of Houston, Texas

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Before the Senate Committee on Environment and Public Works, Subcommittee on Transportation and Infrastructure  
"Equity in Transportation Infrastructure: Connecting Communities, Removing Barriers, and Repairing Networks across  
America"  
May 11, 2021

Good morning, Chair Cardin, Ranking Member Cramer, and Members of the Subcommittee on Transportation and Infrastructure. On behalf of Mayor Sylvester Turner and the 2.3 million residents of the City of Houston, I want to thank you for the opportunity to testify today.

My name is Veronica O. Davis and I am the Director of Transportation & Drainage Operations within the City of Houston's Public Works Department. In this role, I have oversight of almost 16,000 lane-miles, which is more than the distance from Houston to Tokyo and back, 3,500 miles of storm sewer, and 3,600 miles of ditches including 33 stormwater detention basins. For a sense of scale, Houston has over double the lane-miles of Montgomery County, Maryland and we are approximately the same size of Frederick County, Maryland.<sup>1</sup> Transportation and drainage are linked in Houston, because our streets are a critical component of the stormwater conveyance system. Basically, our streets are intentionally designed to hold and move water to mitigate impacts of flooding to homes and businesses.

I am here in my official capacity for the City of Houston, however, I bring life experience and over 20 years of professional experience to the conversation today, including national and international recognition as an engineer who balances technical analysis with the human elements of transportation planning, design and operation. In 2012, I was recognized by President Obama and Secretary LaHood as a White House Champion of Change in Transportation Innovation. Currently, I serve on the board of America Walks and I am Houston's representative for the National Association of City Transportation Officials (NACTO). I will cite both organizations in my testimony today.

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<sup>1</sup> According to the 2019 Mileage Report by the Maryland Department of Transportation, Montgomery County has 7,198 lane miles. The City of Houston is 671 square miles compared to Frederick County, Maryland has about 667 square miles.

**memo.**

#### Why are we Talking about Equity Today?

If inequity in transportation was solely about funding, we would probably not be having the discussion today. It is one thing to have lack of investment in a community, but it is another to have communities that are overburdened with unsafe roadways. We are having this conversation because the end results of decades of inequitable decision-making are negative public health impacts such as asthma<sup>2</sup>, obesity, serious injuries, and fatalities<sup>3</sup> that disproportionately affect low-income and communities with large Black, Hispanic, and/or Indigenous populations. For the purposes of this testimony, I will focus on serious injuries and fatalities.

Every other year, the National Complete Streets Coalition<sup>4</sup> releases a report titled, *Dangerous by Design* which examines pedestrian fatalities across the nation. Some of the members on this subcommittee represent states that are in the top 20 most dangerous for pedestrians in the 2021 report: 2-Alabama, 4-Mississippi, 7-Arizona, 8-South Carolina, 14-Oklahoma, 15-Arkansas, 16-California, 18-Maryland, and 19-Michigan. Texas is number 10 and unfortunately, for the top 20 most dangerous metropolitan areas, the Houston-The Woodlands-Sugar Land region ranked the 18<sup>th</sup> most dangerous. What does this have to do with equity? Across the US, Black/African America and American Indian/Alaskan Native pedestrians die while walking at higher rates compared to other racial and ethnic groups. Although the income of the pedestrians who die is unknown, crashes that lead to deaths and serious injuries are most likely to occur in low-income communities. Additionally, when looking at urban versus rural areas across the country, people are struck at the same rate when controlling for population.<sup>5</sup>

Like many communities, the City of Houston has mapped a high injury network, which is an analysis of crashes that lead to death and serious injuries. We have found that 6% of our streets account for over 60% of the traffic deaths and serious injuries, and 52% of the high injury streets are in communities that are mostly low-income and minority populations with no vehicle households.

#### Defining Equity

In the transportation industry the discussion of equity is around distinguishing equality and equity, equality being everyone gets the same and equity is everyone gets what they need. Discussing these views in concept are generally challenging as they are built on the assumption that resources (people, time, money) are infinite. However, for my fellow transportation officials, we know all too well that the needs of our cities exceed the money, staff capacity, and time resources available to us.

Prior to joining the City of Houston, I co-owned a company which allowed me to work with communities, that were working to put more parameters around equity specific to transportation. One project I worked on was developing the Vision Zero equity framework for Montgomery County, Maryland. Based on the reality of limited resources, we

<sup>2</sup> Asthma and Allergy Foundation of America (2020). Asthma Disparities in America: A Roadmap to Reducing Burden on Racial and Ethnic Minorities <https://www.aafa.org/media/2743/asthma-disparities-in-america-burden-on-racial-ethnic-minorities.pdf>

<sup>3</sup> National Complete Street Coalition (2021) *Dangerous by Design* <https://smartgrowthamerica.org/dangerous-by-design/>

<sup>4</sup> America Walks is a partner organization to the National Complete Street Coalition.

<sup>5</sup> National Complete Street Coalition (2021) *Dangerous by Design*. <https://smartgrowthamerica.org/dangerous-by-design/>

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redefined equity as a prioritization criteria versus every community getting what they need. Few, if any cities, have the resources to provide every community what they need for mobility. However, as Montgomery County programs its actions related to Vision Zero, the resources will be prioritized in communities that have experienced historic under-investment as well as areas with high populations of Hispanic, Black, and/or low income neighborhoods because the data shows that is where most crash-related deaths and fatalities are occurring.<sup>6</sup> In this case prioritizing equity is not only the right thing to do, it targets resources to the areas with the greatest need and greatest opportunity for life-saving improvement.

#### **What is the Root Cause of Inequities?**

As we examine the disproportionate impacts of our roadway system, the logical question is how did the US get to this point? If you examine any major city the findings will be almost identical. At root is race-based segregation compounded with decisions by planners, engineers, and elected officials to put highways and wide roads through minority<sup>7</sup> and low-income communities. Richard Rothstein's book *The Color of Law* documents, across the country, the tactics to segregate communities.

The creation of our National Highway System resulted in the large-scale displacement of homes and businesses in minority and low-income neighborhoods. My personal story is that my grandparents and their community were displaced for the construction of I-10 through East Baton Rouge. My great grandmother's house was the only one left on the block. As a child I remember thinking it was odd that my great grandmother's house was under a highway. Beyond my personal anecdote, there is documentation through photos and historians, of the residual effects.

#### **Complete Communities – How the City of Houston is Addressing Equity**

Houston, like many other cities, has the same story. In 2017, Mayor Sylvester Turner created the Complete Communities Initiative, which seeks to redirect current city and federal resources to communities that are under-resourced. The Complete Communities initiative was established to be collaborative, impactful, and transformative. The ten communities represent what has been discussed throughout this testimony, Black, Hispanic, and/or low-income communities. Many of the communities overlap with Federally Designated Opportunity Zones.

As my team prioritizes the distribution of public works funding moving forward, we are prioritizing funding in Complete Communities to make it safer for people to walk, bike, use a wheelchair or cane, be pushed in a stroller, or drive. This includes projects to reduce the number of lanes for vehicles to reallocate space for wider sidewalks, high comfort bike lanes, drainage, and other streetscape improvements.

#### **What about Rural Areas?**

As mentioned earlier, the data from rural areas is comparable to the urban areas when controlling for the population distribution. The Houston-Galveston Area Council, which is our regional metropolitan planning organization, has a

<sup>6</sup> Montgomery County Department of Transportation (2019) Vision Zero Equity Framework Final Report <https://www.montgomerycountymd.gov/visionzero/Resources/Files/Equity%20Task%20Force%20Framework%20FINAL.pdf>  
Veronica O. Davis was a member of the consultant team.

<sup>7</sup> Minority in this case includes people who are classified as White today, but there were specific restrictive covenants to keep them out of White communities as defined in the 1960s. Examples include people of Italian, Irish, and Jewish heritages.



Livable Communities program that works with local communities to reimagine auto-focused infrastructure, policies, and programs to be more multi-modal friendly<sup>8</sup>. Relatively rural communities in the Houston-Galveston region, including the cities of Waller (pop. 3,124) and Hempstead (pop. 5,885) have undertaken Livable Centers studies to enhance bike/ped accommodations and transit. Many rural communities have older populations that do not drive or are disabled. They too, need multimodal transportation investments. Transportation equity is not an issue solely for urban areas.

#### What can be done at the Federal Level?

The present-day federal surface transportation policy continues to incentivize the construction of high-speed, auto-centric roads at the expense of other modes of transportation, and these projects can move forward with little local input. The US is still spending \$50 billion per year building the same types of infrastructure that displaced and divided communities of color.

As a member of the National Association of City Transportation Officials (NACTO)<sup>9</sup>, I have worked with my colleagues to develop a list of priorities for the upcoming transportation bill. Today, I will talk to four:

- **Reconnect Communities Act:** Like many cities, Houston has numerous infrastructural barriers. In addition to interstates built in the 1960s and 1970s, Houston has 13 freight rail lines that merge near downtown, 2 major freight rail yards on the north side of downtown and more than 700 at-grade crossings. All pose safety risks for people walking and biking and require retrofits. This legislation could be an important step to truly plan the projects within the context of the community's needs rather than solely traditional quantitative performance measures such as travel time.
- **Empower Cities to Realize their Vision:** NACTO has advocated for Congress to direct federal funding to cities and give them control over state-administered projects within their borders. This is to prevent the siphoning of federal funds away from city equity, resilience, or safety projects towards highway construction or expansion.<sup>10</sup>
- **Create a Pedestrian Priority set-aside within the Surface Transportation Block Grant Program:** Every single trip, regardless of traveler and destination starts as a walk trip, but historically our investments have ignored this basic fact. This set-aside should explicitly be for sidewalks, curb ramps, crosswalks, American with Disabilities Act transition plans, and roadway/street narrowing such as road diets that add missing sidewalks or improve crossing for pedestrian safety. Currently in Houston, the installation and maintenance of sidewalks is the responsibility of the property owner. At this time, we do not have the resources to take over that function, especially with having to do special designs in areas where we have open ditches.
- **Incorporate funding for resiliency:** Incorporating the 100-year level of service drainage into a project can increase our project costs as much as 30%. However, a critical part of investing in infrastructure that supports Houston communities is designing facilities that improve both access and resilience. Green stormwater infrastructure, impervious surfaces and detention are elements that must be added to Houston streetscapes. This resilience is particularly important for infrastructure within existing underserved communities. Socially vulnerable residents face greater challenges recovering from extreme events. Those recovery costs fall to Federal, state, and local governments. Houston's goal is to proactively avoid those recovery costs with more

<sup>8</sup> Houston-Galveston Area Council Livable Centers Planning Studies <https://www.h-gac.com/livable-centers/planning-studies>

<sup>9</sup> National Association of City Transportation Officials (2021) Cities Priorities for the 2021 Surface Transportation Bill [https://nacto.org/wp-content/uploads/2021/03/NACTO\\_2021-Priorities-for-American-Transportation.pdf](https://nacto.org/wp-content/uploads/2021/03/NACTO_2021-Priorities-for-American-Transportation.pdf)

<sup>10</sup> National Association of City Transportation Officials (2021) Making Federal Funding Work for Cities <https://nacto.org/wp-content/uploads/2021/03/Making-Federal-Funding-Work-for-Cities.pdf>

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resilient infrastructure. As the new transportation bill is complemented, there needs to be considerations of increased funding for resiliency.

**Conclusion**

As a keeper of the roadways in Houston, I have a responsibility to the public. Mayor Turner has called for a paradigm shift. This paradigm shift includes taking affirmative steps to right historical injustices by designing a multi-modal transportation network that is inclusive of all people and needs. I recognize every decision today will impact future generations.

Thank you for your time and attention to this important topic. I look forward to answering any questions you may have.

**memo.**



**Date:** June 8, 2021  
**To:** U.S. Senate Subcommittee on Transportation and Infrastructure  
**From:** Veronica O. Davis, PE  
 Director, Transportation & Drainage Operations  
**Subject:** Response to Questions for the Record

Please find below my responses to the questions for the record. I am available if there are additional questions or clarifications.

**Senator Cardin:**

***In addressing equity in transportation, how important is it to provide local communities with more control over some resources that the federal government typically provides to states?***

As cities continue to grow, there is a greater emphasis on addressing congestion by improving infrastructure for using sidewalks, biking, and riding public transit as well as addressing safety. In some states, there may be misaligned philosophies between the state and the local transportation agencies. For example, in Texas the funding structure can limit the limit the scope of the projects that The Texas Department of Transportation (TxDOT) and local governments can implement. TxDOT is a recipient of federal funds from the Federal Highway Administration, and the eligible use of those funds is determined by federal law and code. In addition to the federal funding TxDOT receives state funding from a variety of resources. State of Texas statutes and code dictate the eligible uses of this state transportation funding, as well as any additional restrictions on federal funding the state chooses to impose. When doing the categories, Texas commingles the state and federal money such that the most restrictive rules apply to all funding in the bucket. Therefore, even if the federal rules allow for the expenditure of funds on a wider variety of projects or activities, more restrictive state rules could prohibit that expenditure.

***How can we provide better opportunities for local input regarding the use of funds that go through formula programs to states and how should that local input or local control be structured?***

When there are funding formulas to determine allocations to the state, the formula should carry to local jurisdictions to prevent state DOTs from shifting resources from cities. For those federal funds, the local design standards should take precedent over others.

**memo.**

**Senator Kelly:**

*I'd like to ask you about the challenges of updating existing infrastructure to accommodate underserved communities. For example, in Arizona, the City of Tolleson which is a former farming community located in the south-central Phoenix area, is directly adjacent to the I-10 interstate, but does not have a freeway exit. This omission has left this community, which is about 80 percent Latino suffering from significant traffic congestion relative to nearby communities. The City of Tolleson and the regional metropolitan planning organization (MPO) are working on a plan to add the city's first interstate onramp, but as compared to projects which propose to build new infrastructure, this project is posing challenges from both a planning and cost perspective. What steps has the City of Houston taken to connect underserved communities to existing transportation infrastructure, like adding new highway on-ramps? What can you share about how you overcame the cost and planning challenges associated with these projects?*

I am not aware of any examples within the City of Houston where a highway ramp was used to connect a community. One of largest challenges with connectivity is the over 700 at-grade rail crossings. Where we can we are trying to move forward with grade separation projects, establishment of Quiet Zone, and improving safety for people crossing by walking or biking.

*The City of Phoenix is experiencing impacts of rising global temperatures and a growing urban heat island due to the retention of heat within the built environment. Many neighborhoods, especially those in historically underserved areas, have less tree and shade coverage, making them hotter and less resilient to the impacts of climate change. The City is implementing a Cool Corridors and a Cool Pavement Program to lower street surface temperatures which can positively impact the safety and comfort of using alternative transportation modes and active transportation options. I understand that the City of Houston has executed a comprehensive resilience strategy to mitigate the City's extreme heat waves. How has the City of Houston been successful in implementing its resilience plan to reduce urban heat? Can you offer any insight to help Phoenix and other cities improve their heat reduction strategies?*

The City of Houston is in the second year of implementing our Resilient Houston Plan. The resiliency plan comes on the heels of Hurricane Harvey which had a devastating impact on the region. We are piloting new initiatives such as green sidewalks, increasing the tree canopy, and other green infrastructure. In addition, we are looking at opportunities to reduce the amount of pavement such as reducing the width of the roadway and number of vehicle lanes to incorporate landscaping, trees, and drainage.

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Senator CARDIN. Thank you, Director, for your testimony. We really appreciate it.

We will now go to Director Panos.

**STATEMENT OF BILL PANOS, DIRECTOR,  
NORTH DAKOTA DEPARTMENT OF TRANSPORTATION**

Mr. PANOS. Chairman Cardin, Ranking Member Cramer, and members of the Subcommittee, I am Bill Panos, CEO of the North Dakota Department of Transportation.

At the outset, I want to express our department's appreciation for Senator Cramer's work on transportation issues.

Let me also note that the transportation departments of Idaho, Montana, South Dakota, and Wyoming have authorized me to advise that they support my written testimony.

Mr. Chairman, you are among the cosponsors of Senate 1202, Chairman Carper's Reconnecting Communities Act. That legislation underscores that sometimes, a transportation investment does not turn out as well as was hoped when it was conceived and built. More specifically, a number of disadvantaged communities in large urban areas have found themselves divided by limited access highways.

So, today, we discuss what should be done going forward to address situations of disadvantaged communities that want better connections or to be reconnected.

I will begin with a rural setting. Upgrading a narrow, two lane road that connects to a tribal nation can make a difference. A modern, two lane road with standard width lanes and shoulders and a third lane at appropriate points for turns or passing is much safer. It also shortens the trip to a job, a school, or a health care provider. Making the same kind of improvement to another two lane road can help a farmer move crops to a grain elevator more efficiently, which is important, as farm operating margins are so thin.

Rural roads are also used by buses, which are another tool to improve connections for disadvantaged individuals and families.

In short, improved connections are needed by rural communities, including disadvantaged ones. State DOTs like mine help address these issues with highway and transit formula funding. Strong formula funding will enable the State to continue to address these situations and help people.

Legislation should also make clear, if clarification is needed, that formula funds can be used for projects to address the divided urban community situations that are front and center at today's hearing, so eligibility and strong formula funding will enhance the ability of States to address these urban connectivity issues quickly.

Regional issues should also be considered. If an interstate system highway through a city is proposed to be effectively severed, will there be consideration of whether that leads to backups on the city's beltway or bypass highway? Will that mean increased air pollution elsewhere?

Consideration of those factors could lead to win-win solutions. For example, a decision could be made to cap rather than remove an interstate system segment that would enable walkable and driv-

able community connections above the highway without a break in the interstate system.

Before closing, I will comment on funding. I have already mentioned that strong formula funding and flexible program eligibilities enable a State to connect or reconnect disadvantaged communities in rural and urban areas. But formula funds do more than that: They help improve roads, bridges, bike paths, sidewalks. They pay for safety investments. They could also be transferred to transit projects. Formula funds are delivered as projects quickly.

Discretionary programs, however, can't be deployed until after program rules are established and applications sought, applications prepared and filed, applications reviewed by USDOT, and a decision made on awards, and a grant contract finalized.

As formula funds are so beneficial, it is not surprising that State DOTs have broadly advocated that 90 percent or more of highway program funds be distributed by formula. Ninety percent itself is down from an estimated 92 percent of FAST Act Highway Funds being distributed by formula, so it is noteworthy that Senate 1202 would provide \$15 billion over a 5 year frame non-formula program to fund reconnection projects.

Fifteen billion dollars in discretionary funds is so large that, to maintain a highway program distribution with 90 percent formula funds, one would have to pair these discretionary funds with an additional \$135 billion in formula funds. So, the overall funding approach should not de-emphasize formula funding.

Last, but importantly, I have described in my written testimony we support a range of actions that can help advance equity for the disadvantaged and disadvantaged communities.

That concludes my statement. I will be pleased to respond to questions at the appropriate time.

Thank you.

[The prepared statement of Mr. Panos follows:]

Statement of  
William T. Panos, Director, North Dakota Department of Transportation  
before the  
Subcommittee on Transportation and Infrastructure  
Committee on Environment and Public Works, United States Senate  
regarding  
Equity in Transportation Infrastructure:  
Connecting Communities, Removing Barriers, and Repairing Networks Across America  
May 11, 2021

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Chairman Cardin, Ranking Member Cramer, and Members of the Subcommittee:

I am Bill Panos, Director and Chief Executive Officer of the North Dakota Department of Transportation. At the outset, I want to express the appreciation of our department for Senator Cramer's work on transportation issues for North Dakota. Thank you, Senator.

Today, I will offer some comments, from my perspective as the CEO of the transportation department of a low population, large land area state, on issues before the subcommittee today.

However, my experience is national in nature. I became Director of NDDOT in 2019 after many years in other private and public sector organizations, including leadership positions with an aerospace company that was a major government contractor, the Commonwealth of Massachusetts, the State of Washington, the State of Wyoming, where I was the CEO of the DOT and of another agency, and local government, including a port authority in California.

Let me also note that the transportation departments of Idaho, Montana, South Dakota and Wyoming have authorized me to advise that they support my written testimony.

**Skillful Transportation Investment Can Help Reconnect – or Connect -- Communities in the Context of Our National Transportation System**

Mr. Chairman, you are among the co-sponsors of S. 1202, Chairman Carper's "Reconnecting Communities Act."

That legislation and related explanatory material underscore that sometimes a transportation investment does not turn out as well as was hoped when it was conceived and built. More specifically, a number of disadvantaged communities in large urban areas have found themselves divided by limited access highways that were built long ago.

That these situations did not arise recently is not surprising. Since the era of Interstate System construction, there have been major improvements in transportation planning for Federally-assisted transportation projects, particularly beginning with ISTEA in 1991. So, today, we face the issue of what should be done going forward to address situations that arose long ago.

In doing that, a key question is how to plan transportation and related investment to serve

disadvantaged communities that want to be reconnected -- or connected -- in the context of our national transportation system.

Let's consider the rural setting. In rural America, usually the interest of a disadvantaged community, sometimes a community that has been under stress for a long time, is to be better connected beyond the community. It can be very beneficial to upgrade an aging and narrow two-lane road that connects to a tribal nation, or that connects to and also goes into a tribal nation. A modern two-lane road with wide shoulders and a third lane at appropriate points for turns or passing is safer. It also can shorten the trip to a job, a school, or a health care provider. Investments to maintain or improve a road in rural North Dakota can help a struggling farmer move the harvest to a grain elevator more efficiently -- and each dollar saved is important, as farm operating margins can be very thin.

Rural roads in rural states are also used by buses, which are another tool in the effort to improve connections. Rural communities, including disadvantaged ones, often have a higher percentage of elderly and disabled individuals. They and other disadvantaged individuals do not always have a family car -- or they have one car when they really need three for multiple family members to travel to and from different jobs that are not close to each other. So, providing new or improved bus service can help disadvantaged and hard-pressed individuals and families.

The highway and bus investments that I described help make very important connections for disadvantaged and economically challenged families. Departments like the North Dakota DOT plan and implement important investments like these regularly.

These investments, we are confident, make sense as part of our national transportation system. They improve transportation service to help connect and provide real benefit to people and business, including in disadvantaged communities. These are not splashy big projects and we undertake them in large part with our State's Federal highway formula funding or, as to bus investments, with Federal rural transit formula dollars.

In short, improved connections are needed by rural communities, including disadvantaged ones. States help address these issues with formula funding. Strong formula funding will enable states to continue to address these situations.

The urban situations that are front and center at today's hearing also should have the opportunity to be addressed through formula funds. And I will add that, to the extent some of those expenditures might not be thought of as transportation investments, some of them could be considered a form of time delayed mitigation costs.

So, as in the rural setting, it would help these urban communities reconnect if the needed expenditures are clearly eligible uses of formula funds. That and strong formula funding will enhance the ability of states to address these urban connectivity needs.

Regional issues should also be considered in order to optimize investment. Certain investments relative to reconnecting a community should be preceded by giving consideration to the potential impact on other communities or on the transportation system as a whole.

If an Interstate System highway through a city is proposed to be effectively severed, will there be consideration of whether that leads to backups on that city's beltway or bypass highways? Will that mean increased air pollution somewhere else? Those factors do not seem to be highlighted in S. 1202, though there is a reference to "other" planning activities in the portion of the bill on planning grants.

Consideration of the potential impact on other communities or on the larger transportation system from severing an Interstate System link, even for a short distance, could lead to win-win solutions that keep the link intact. For example, a decision could be made to "cap" or partially cap an Interstate System segment, or to replace that segment with a segment in a tunnel, rather than remove the Interstate System segment. These approaches would enable walkable and drivable routes above the highway, helping reconnect the community. The Interstate System highway would not be interrupted, and potential impacts of a break in the Interstate System on other communities would be averted.

So, in addition to increased formula funding and program eligibility for the needed connectivity investments, consideration of regional issues before choosing a course of action would help ensure a skillfully tailored solution to connecting or reconnecting a disadvantaged community.

#### **Formula Funding is Highly Beneficial**

Before closing, I will offer a few thoughts on funding, which is an important component of virtually every effort to solve transportation problems. I have made clear our view that investments improving a highway or enhancing bus service, to better connect rural communities, including disadvantaged ones, are important. We are currently making those investments with formula funds. So, strong formula funding and flexible program eligibilities enable a state to address those circumstances and help people.

Similarly, actions to adjust a segment of an urban Interstate System highway, to cap it or to make other transportation or mitigation-type investments to help reconnect a community divided by transportation infrastructure, should be eligible uses of funds under the highway formula programs. I have also noted that action on such projects should be preceded by consideration of the impact on other communities and interstate transportation. But, to help address the reconnection issue, upcoming legislation can include any technical amendment that may be needed to ensure the eligibility of reconnection investments under formula programs, as well as provide strong formula funding.

More generally, Federal highway formula dollars are critical to the success of the transportation program in serving the public. They are deployed widely in all of the states. They are used to improve roads, bridges, bike paths and sidewalks. They pay for vital safety investments, including guard rails and rumble strips. They help meet appropriate mitigation costs. They can also be transferred to transit projects.

Formula funds are delivered as projects quickly. They are based on plans that are in place and continuously improved through a planning process featuring extensive public outreach.

Discretionary programs, on the other hand, are not ready to deploy until after program rules are established, applications sought, applications prepared and filed, applications reviewed by USDOT, and a decision made on awards.

As formula funds are so beneficial, it is not surprising that state DOTs have broadly advocated that 90% or more of highway program funds be distributed by formula. And that approach, with at least 90% of Federal highway funds being distributed by formula, was followed in the reauthorization bill that the Environment and Public Works Committee reported in 2019 by 21-0. Formula funds, simply, are very beneficial.

So, it is noteworthy that, under S. 1202, \$15 billion would be authorized to be appropriated from the Highway Trust Fund over the next five years for a non-formula program to fund these reconnection projects. These dollars would be over and above a state's formula dollars and appear to be destined, at least in large part, to densely populated areas.

That (\$15 billion) is a truly huge sum. With the addition of \$15 billion in discretionary funds to a reauthorization bill that has a highway program distribution of 90% formula and 10% other, one would have to add an additional \$135 billion in highway formula funds to maintain a program distribution with 90% formula funds. And without an increase of formula funds of that magnitude, a \$15 billion increase in discretionary fund would place downward pressure on the share of highway program dollars dedicated to vitally important formula funding.

So, without trying to be highly specific on funding levels for multiple components of the highway program, I want to continue to emphasize the importance of strong growth in formula funding and maintaining its strong role in the overall distribution of highway funding.

Lastly, but importantly, we support a range of actions that can help advance equity for the disadvantaged and disadvantaged communities, including but not limited to, extensive community outreach and consultation in conjunction with projects in and near a disadvantaged community, workforce development and recruitment, DBE procurement and contracting, and accommodations and access for the differently abled.

**Conclusion**

That concludes my statement, Mr. Chairman, and I thank the Committee for the opportunity to appear today. I'll be pleased to respond to questions at the appropriate time.

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**Senate Committee on Environment and Public Works**  
**Subcommittee on Transportation and Infrastructure**  
**Hearing Entitled, “Equity in Transportation Infrastructure: Connecting Communities,**  
**Removing Barriers, and Repairing Networks across America”**  
**May 11, 2021**  
**Questions for the Record for Director Panos**

**Senator Kelly:**

1. As you know, the Biden Administration has proposed to deploy more than half a million charging stations across the country. I support efforts to electrify our transportation sector, including – where appropriate – with support from the federal government. However, I am concerned that if not properly targeted, programs could leave rural and tribal communities behind. Like Arizona, North Dakota is home to many rural communities. What are the unique challenges that rural states and communities face amid the push to electrify our transportation sector?
  - a. What steps could Congress take to ensure that rural and tribal communities aren’t left behind as we consider making significant investments in EV charging infrastructure?

**Reply by Director Panos:**

Thank you for the thoughtful question.

I agree that rural and tribal communities should not be left behind as the nation makes significant investments in EV charging infrastructure. Avoiding falling behind is not just a question of some type of parity in investment in these charging facilities. As EV use grows, if rural and tribal areas cannot support them with charging, people and businesses using EVs, representing an ever-increasing share of the economy, may tend to not visit or do business in those rural or tribal areas.

To help address this, several concepts could be added to the EV charging program that would be authorized by section 1401 of the legislation just voted out of the Environment and Public Works Committee by a vote of 20-0, to the extent those concepts are not already in the provision.

First, USDOT could be directed to undertake specific outreach to tribal and rural communities, such as by webinars that could also include state participation, to ensure awareness of the opportunity to apply for EV charging funds under the bill, as well as advice on how to apply and utilize the funds. Ideally, this outreach and technical assistance directive would be undertaken with funds from the Secretary’s or FHWA’s general administrative budget. If it were undertaken with funds authorized by section 1401, it would reduce funds available for EV charging equipment and deployment.

Second, the basic approach of the program is for funds to be provided to states (tribes are also eligible) which would, in turn, provide grants to support EV charging to private parties. To help ensure that the funds are used effectively, it appears that the bill contemplates that private

applicants would indicate how much they are seeking in funding. Presumably, applicants from more densely populated areas, likely with stronger prospects for patronage, could seek less, and increase their chances of a successful application. Rural and tribal applicants may, at least initially, expect light patronage. Thus, grants in those areas and communities may have to be larger to be successful in attracting applicants. Bill language regarding helping to ensure adequate investment in rural and tribal areas could help reinforce a successful mix of grants.

Lastly, in administering the alternative fuel corridor program under 23 USC 151, USDOT/FHWA has maintained a now outdated practice that, to be a designated corridor, for EV charging with signage (literally, a kind of signal to drivers to help overcome “range anxiety”), charging stations should be in place at least every 50 miles. With new model electric vehicles having ranges of 200-300 or even more miles, this practice is too rigid. In very rural areas of states like Arizona or North Dakota, where towns of any size can be more than 50 miles apart, this outdated practice discourages the development of EV charging. For example, a corridor is not designated for EVs because stations are 75 miles apart, so it is not used by EVs, so further investment in EV charging equipment in the corridor is deferred if made at all, etc. The legislation should unambiguously allow states and tribes to designate corridors for EVs, for the purposes of the section 151 Federal program, at least in rural areas, even if charging stations are more than 50 miles apart. USDOT can have consultation rights but no veto authority over such designation. With designation, there should be increased EV use in the corridor, leading to increased private sector investment in charging equipment.

These concepts can be included in legislation in some way in order to advance deployment of EV charging in tribal and rural communities.

Senator CARDIN. Director, thank you very much for your testimony.

We will now go to Dr. Polzin.

**STATEMENT OF STEVEN POLZIN, PH.D.,  
SENIOR CONSULTANT, SELF-EMPLOYED**

Mr. POLZIN. Thank you. I very much appreciate the opportunity to share my thoughts on this important topic with you today.

Equity in transportation has been an issue for decades, and it is certainly getting increasing attention now. The COVID situation, for example, has increased the sensitivity to disadvantaged communities and groups.

In my written testimony, I use the comparison of the fantasy of teleportation as a point of contrast to actual modes, where there is no such thing as perfect equity. The incidents and consequences of modes differ across geography and market segments.

Historically, we have looked at equity with respect to a number of characteristics. Certainly, access to modes and accessibility via those modes.

We have looked at the incidents of consequences of those modes based on the services and facilities, and we have looked at the equity issues as it relates to the collection and distribution of funds. Common topics that arise in those discussions are things like, are heavy trucks paying their fair share of roadway costs, are rural or urban areas getting the appropriate attention in the formulas, et cetera.

More recently, equity sensitivities have been broadened from that. We are looking for examples of things like whether or not ride hailing and e-scooter services are being distributed equitably. We now have the capability to look at things like access to health care and fresh foods as influenced by our transportation system.

We have discovered, certainly from the academic perspective, that defining and measuring equity is extremely difficult. Some people think equity means that the government should spend the same amount on transit as roadways, while others think that equity means folks that contribute user fees should have those user fees spent on projects that benefit them. Some people think it is inequitable to burden the future generations with debt for spending on operations for services today versus leaving those folks with an asset that pays dividends in the future.

Beyond defining equity, we are seeking to understand the extent to which efforts to improve equity can be leveraged in terms of improving overall societal inequities, and that is not a trivial challenge at all in terms of understanding the merits and value of investing in this type of solution to improve equity.

Equity is not easily accomplished and is challenging.

Another key point that I pointed out in my written testimony is that geography is a critical factor as it related to equity, and it is important to recognize that urban areas with roadway systems typically have a hub and spoke type of configuration, and the geometry of that means that the transportation network is more dense and typically higher capacity as you approach the core, or the hub, of that urban area.

Accordingly, there are more impacts as well as more accessibility for those areas in general because of the presence of those facilities, so populations that tend to congregate in the urban, inner urban areas are disproportionately impacted by the consequence of those systems, but also have the benefit of greater accessibility, both on the roadway side and on the public transportation side.

When we think about, and when I think about transportation equity, both as a researcher and a practitioner, a number of issues are important to consider as we deliberate how to address improving transportation equity.

First of all, I think it is critical to realize that the transportation community, the full community, from planning to decisionmaking, have become much more sensitive to these issues.

In fact, our tactics and strategies are much more robust than was the case at the beginning of the interstate era. Even simple things like our outreach and planning processes are more engaging than historically was the case. Simple things like virtual communications that we have excelled at during COVID, people are realizing that this is a nice venue to have more inclusiveness in our planning processes, for example.

But it goes beyond that. We have done more with engineering and planning. We are using our facilities more creatively; we are mitigating the size of the footprints; we are ensuring better connectivity for people, and even for wildlife across facilities. We are using excess parcels to make contribution to the community, et cetera.

It is also important, and it has come up in some of the comments earlier, that the interstate system was really intended as a national system to provide connectivity. It was created with the intention of addressing everything from military preparedness, economic competitiveness, mitigation in catastrophes, et cetera, and its constituents and stakeholders reflect that full breadth of intended uses.

So anything that is done that influences that system going forward really needs to have a stakeholder set that reflects that full breadth of audience in those decisionmaking things. While it certainly impacts local communities, the benefits go well beyond that.

It is important to realize that urban communities weren't the only ones negatively impacted by the freeway. There are dozens of small towns and communities across the country that were bypassed by freeways that had dramatic impacts on their economy because of that, so when we think about mitigating consequences, we need to recognize that those consequences didn't just occur in urban communities.

When we think about economics and spending on transportation, it is important to realize that oftentimes in discussions, we talk about the multiplier benefits that we are going to see from transportation investment.

Historically, the economists have calculated those benefits based on the enhanced mobility that those investments provide. We need to be careful as we expand the purpose of those investments to make sure that we are, in fact, getting benefits from those investments that merit their expenditure going forward. We need to be

careful that the higher costs don't mitigate the return on that investment.

We should also be careful in presuming how social and commercial interactions will occur, should we fix or change some of the urban infrastructure conditions. Today's social networks and commercial networks are very different from those that existed in the 1950s. A lot of the socialization and economic activity aren't place based. They are based on social connections and interactions, media connections, they are formed around jobs and schools and workplaces, much more so than social places or local residential places. So we need to be careful about presuming that we are going to return things to a 1960 concept of what a neighborhood and interactions in the community are.

Senator CARDIN. Dr. Polzin, I ask if you could summarize your statement.

Mr. POLZIN. I can.

Looking ahead, I think it is important that all the local, State, and regional perspectives are brought to bear when we make these decisions. The stakeholders for these investments oftentimes, particularly for interstate-centric investments, go well beyond the local area, so it is important that these folks all have a place at the table as we make those decisions.

A number of communities have and are in the process of exploring some of these issues as we speak, and they have developed pretty big capabilities to do that. We can go back and look at things like the Big Dig in Boston, for example.

Communities have found ways to mitigate consequences and work around these things through existing processes, and I think there are opportunities, with adequate resources, to continue to do that in the future, leveraging the capabilities and the processes that have been developed at the local and State levels.

Thank you.

[The prepared statement of Mr. Polzin follows:]

### In Search of Transportation Equity

Testimony to the Subcommittee on Transportation and Infrastructure of the Senate Committee on Environment and Public Works, hearing on "Equity in Transportation Infrastructure: Connecting Communities, Removing Barriers, and Repairing Networks across America."

May 11, 2021

**Steven E. Polzin, PhD.**

I appreciate the opportunity to share my thoughts on this important topic with you.

Transportation has long had multiple goals and the list of goals has grown as more has been learned about transportation and its influences on the built and human environment. Currently, equity has risen to occupy a top spot in discussions of transportation. When we wear our social responsibility hats, we want transportation to be equitable both in the mobility it provides and in the incidence of the externalities it produces.

I know how to have perfect transportation equality.

Perfect transportation equality is a teleportation device attached to everyone's wrist that they can use for free and instant travel to any place, at any time, with zero travel time. Everyone would have one at no cost and it is attached so even the most absentminded among us would not misplace it. It could not be sold, lost, gambled, pawned, repossessed, or otherwise disappear.

No noise or emissions, no crashes, nor land consumed for parking or terminals or travel ways. No big factories or scrap yards, no properties or neighborhoods disrupted by its infrastructure. Garages can be used for lawnmowers, bicycles and work benches and driveways for basketball or hopscotch. No check-in lines, overpriced airport food or lost luggage. Persons who cannot physically, mentally, or legally operate a vehicle or tolerate the stress of vehicle travel can teleport. The ability to travel would not differ across persons regardless of sociodemographic characteristics, geographic location, financial resources, physical or mental capabilities or other traits. And neither the travel itself nor supportive facilities would impact other individuals. That offers perfect transportation equality.

But we do not have teleportation.

Every other mode introduces inequities. Each incurs various time costs, money costs, and impacts on the travelers and on the persons affected by the presence of the supportive facilities such as roads and the vehicles using them. They offer different degrees of comfort, safety, security, emissions, fuel consumption, noise, personal exertion, social interaction, and other traits. No real mode is ubiquitously available.



Both the transportation planning communities, decision-makers and the traveling and taxpaying public have regularly paid attention to elements of the equity issue. These concerns range from equity in access to modes and access to destinations via the modes, equity in the collection and distribution of transportation funds, and equity in the incidence of the consequences of the deployment of transportation facilities and services. Are heavy trucks paying their fair share of roadway costs? Are rural or urban areas getting their fair share of revenues? Are transit riders and pedestrians getting their fair share of investment? Are disadvantaged or local businesses getting a fair share of contracts? To what extent are the various externalities such as noise, pollution, and construction disruption fairly distributed or mitigated? Nobody just discovered transportation equity as a policy issue.

Academics have been obsessed with studying equity particularly for private company transportation network companies and shared mobility services such as e-scooters. Interestingly, access to publicly provided services such as airports, freeway entrances, and bus stations have gotten less attention. More recently, the disparate impact of COVID-19 on employment opportunities and travel choices of persons with economic or mobility disadvantages has increased sensitivity to the role that transportation plays in influencing economic and quality of life success.

The interest in equity raises a host of planning and analysis issues as well as a host of policy issues as the profession tackles defining and quantifying concepts such as equality and equity in the context of transportation. This is not easy. Researchers and policy analysts have spent years trying to define accessibility and mobility. Defining equity is far harder. For example, some think equity means that government should spend the same amount on transit as roadways while others think that equity occurs when funds raised through user fees are returned to the benefit of those from whom the funds were collected. Some people think it is prudent to incur debt to build assets such as roads and rail lines that will provide benefits for years to come while they believe that it is inequitable to future generations to burden them with debt for spending on operations of rail and transit services that only subsidize today's travelers.

Beyond defining equity, one would expect policy makers to want to discern the relevance of improving transportation equity as a factor in mitigating broader societal inequities. One might want to understand the benefits of more equitable transportation as reaching greater transportation equity will incur a multitude of costs. Efforts to minimize transportation inequities, for example providing high service levels even in weak markets, might not be the most effective strategy to attain broader equity aspirations. While equity has an implicit connotation of being virtuous or perhaps to some, a moral obligation, as is the case with many things, transportation equity is not so easily accomplished and not without significant tradeoffs. In the absence of teletransportation, transportation cannot be equitable to everyone across the multiple dimensions by which one might measure equity. What increases equity for one group often increases inequity from the perspective of other groups.

### **Geography and Equity**

Real modes are dramatically influenced by geography and its influence on the network of transportation facilities. Geography influences access to travel options, accessibility via those options, and the incidence of the externalities of the modes (such as noise, emissions, and community disruption). By virtue of the time and cost elements of traversing geography, travel between different locations cannot all be equal. Decisions people make such as where to live and where to work, shop, worship, recreate, etc., fundamentally impact the time and cost and other attributes of accessing a travel means and using that means to reach a desired destination.

People living in small rural communities do not have access to international airports and are often tens of miles from the interstate system. People living in suburban and rural areas do not have bus routes with ten-minute frequencies. People living in mountain valleys do not have highly interconnected roadway systems. People in one small town or neighborhood have good transit service by virtue of being on a route between major destinations. People in an otherwise identical community are not so fortunate as they do not lie on the path between major destinations. It is not equitable. Geography and topography influence accessibility.

Within urban areas the roadway system is typically some derivative of a hub and spoke system. As one approaches the hub, typically the downtown, the network gets denser, and the facilities tend to get larger to accommodate the higher travel levels historically associated with proximity to the central business district. When the interstate system was conceived, it was the urban areas that advocated for links penetrating to the urban core so that they could gain the benefits of being connected to the interstate system. Most urban core residents are within a mile or two of an entrance to the interstate system – a level of accessibility that many small non-metropolitan communities would pine for. By being closer to the center of activity these locations are within easy access of a far larger share of destinations than are suburban or exurban areas.



But as their geography has given them great access to the interstate or highway system it has also subjected them to the externalities of transportation infrastructure. The noise, emissions, and disruption, including occasional disruptions to the local roadway system, are influenced by the geography of location.

Hub and Spoke roadway System Typical of American Cities

All externalities of transportation cannot be mitigated and there is no way to distribute the externalities equally across all people. Thus, just as access to various modes is impacted by geography so is the incidence of some of the externalities. This has implications for planning and decision making going forward and requires tradeoffs.

#### Thoughts on Addressing Transportation Inequity

1. Over the past decades the planning and engineering communities in conjunction with decision makers have shown greater sensitivity to mitigation of the externalities of transportation infrastructure. Inclusive planning and community engagement practices, careful alignment decisions and community sensitive designs, sound walls, innovative designs to minimize facility footprints, judicious use of elevated, depressed and underground roadway sections, creative reuse of surplus parcels of roadway rights-of-way, use of landscaping, and other tactics have helped. The anticipated evolution to electric vehicles will help in mitigating emissions and noise impacts. These trends are well underway and being accommodated in existing planning processes and programs.

2. Roadways are interconnected and function as networks and are part of a transportation system. The value of a roadway segment is associated with its role in the system. The Interstate system was explicitly created with the intention of furthering interstate commerce and travel. It supports everything from military preparedness, economic competitiveness, emergency evacuations, commuting, and occasionally short urban trips as well. The beneficiaries of the Interstate system and, hence, appropriate stakeholders in decisions that impact it, include not just the communities impacted by its presence but the broader public that depends on it. What is best for an individual community might not be what is best for the broader community, the region, the state, or the nation. Tradeoffs are required and all the stakeholders should be part of the decision-making process.
3. Urban communities were not the only communities impacted by major transportation facilities. Many rural towns and communities that were bypassed by the interstate were dramatically impacted as travelers shifted their lodging, retail and restaurant business to interstate interchanges or metro areas. The retail and service options for these community and the jobs associated with them could no longer survive. Can or should this community disruption be mitigated, and if so, how?
4. Facility alignment decisions have historically been driven by the need to connect major travel origins and destinations subject to the geography, topography, and cost considerations. In some instances, alignment decisions were envisioned as an opportunity for redevelopment. The impacted communities often had different demographic characteristics than those that occupy that same geography today. Cautions should be exercised in implying the motives and intentions or sensitivities of those that made prior plans and decisions.
5. Historically economists' expectations of infrastructure investments producing economic returns were premised on their ability to enhance economic activity, expand the workforce and customer base accessible to businesses, enable the efficient transportation of inputs to and outputs of manufacturing, and provide safe and convenient transportation of personal and commercial vehicles. The magnitude of these benefit multipliers are undermined if higher costs to mitigate impacts detract from the resources available to make systems work more efficiently and more safely. While mitigating impacts is meritorious, there are tradeoffs and opportunity costs associated with undisciplined pursuit of mitigating impacts inherent in transportation infrastructure.
6. To the extent that efforts to mitigate the impacts of roadways on communities results in those roadways being removed or their capacity diminished, it is likely to result in that diverted traffic having impacts on other geographies. To the extent that traffic shifts to more circuitous routes or arterial or local roadway facilities it risks causing greater congestion, greater safety risks, and increased direct exposure to emissions and noise. Additional investments may be required to accommodate traffic shifted to other facilities and/or mitigate its impacts. It may not be perceived as equitable to the new communities burdened by greater traffic.
7. Cautions should be used in presuming how social and commercial interactions in communities might change because of changes in local circulation opportunities. More social and economic interactions are now based on digital and virtual relationships. The scale of viable retail establishments and service establishments is now larger and of a less neighborhood centric

scale. Improving local circulation is meritorious but unlikely to restore communities to the nostalgic visions of their characteristics in the 1960s.

8. Cautions should be used in understanding stakeholder interests in transportation decisions. It is common for the benefits of better transportation to be widely spread over time and space (a new facility saves tens of thousands of travelers and businesses several minutes of travel time and provides safer travel every day for years) while the negative externalities are concentrated in time (construction disruption) and in space (noise, emissions, community circulation, etc.) resulting in different levels of motivation for stakeholders to participate in decision making. It is important for decision makers to reflect the totality of impacts and not be overly influenced by the loudest voices at the podium.
9. Impacts on communities associated with transportation facilities extends well beyond urban communities. Rural areas suffer when bridges are posted with weight limits or closed or when rail grade crossings are closed or blocked. Other communities suffer when inadequate investment leaves roadway conditions impacting traffic safety and commerce. Increased rail traffic, especially higher speed passenger trains disrupt communities with noise, road closings and crossing safety risks. A comprehensive planning and evaluation approach is best at assessing the various impacts and associated inequities and evaluating the merits of mitigation.

Addressing transportation impacts and equity are widely ingrained in transportation planning and decision-making processes. The sensitivity to equity across the broader society has only heightened that attention. Defining, measuring, and integrating measures of equity into decision making will be challenging as the topic is extremely complex and multifaceted. Tradeoffs and opportunity costs need to be considered. Local, regional, and state forums are addressing these challenges and federal support in areas such as provision of data and documentation and education on best practices is helpful. It is critical that the decision-making forums embrace the full spectrum of stakeholders and that the foundational purposes of the interstate system - interstate commerce, be understood and constituents for such be party to decision-making that involves these facilities.

In my opinion, we are well served to let the research, planning and decision-making forums for transportation planning and programming integrate this greater sensitivity to equity into their decision frameworks.

Senator CARDIN. Thank you, Dr. Polzin.

All of you have raised issues that I know we want to get into a discussion during the questioning by members of the Senate.

I am going to yield my time to Senator Padilla, whose director is here from California.

Senator Padilla.

Senator PADILLA. Thank you, Senator Cardin, and good morning, everybody.

Before I get to my question, I wanted to acknowledge an important topic that this Committee has discussed and continued to deliberate.

We know that renewing our infrastructure fosters economic growth. It connects communities and improves quality of life for all Americans, but all too often, in the past, policymakers have ignored the needs of the people most directly impacted by these projects and have failed to serve vulnerable communities.

Even worse, infrastructure has, at times, contributed to the destruction of communities, especially low income neighborhoods and communities of color. Ensuring equitable investment in all communities is an essential aspect of building back better and addressing our Nation's infrastructure needs.

In California, leaders like Director Omishakin are at the forefront of this effort by recognizing that communities of color and underserved communities have experienced fewer benefits and a greater share of the negative impacts associated with our transportation systems, as well as by issuing a race and equity action plan and making tangible commitments, including creating a work force, at all levels, that is representative of the communities that it serves, meaningfully engaging communities most impacted by structural racism in the creation and implementation of the programs and projects that impact their daily lives, increasing pathways to opportunities for minority owned and disadvantaged business enterprises, and combating the climate crisis and the disproportionate impact on frontline and vulnerable communities.

I look forward to working with my colleagues to amplify these commitments at the Federal level to create a more equitable transportation system for all Americans. Again, in prior hearings, we have talked about the physical impacts of too many infrastructure projects, particularly transportation projects on communities.

Today, I want to focus on business opportunity. As we work to pass a bold package to invest in our Nation's infrastructure, we must ensure that such funding also helps businesses, especially small, minority owned, and women owned business that have been hardest hit by the COVID-19 pandemic to rebuild and to thrive. Current regulations require that agencies receiving Federal transportation funding use a portion of such funds to support disadvantaged business enterprises.

Unfortunately, current regulations can unintentionally create incentives to keep small businesses small, rather than helping them mature into medium sized businesses or prime contractors. In response to these concerns, agencies like L.A. Metro have established innovative local programs to support small businesses with the tools to get certified and to grow. These tools include creating a me-

dium business size standard and provide a pathway for small businesses to bid on and win contracts as prime contractors.

As Congress seeks to overhaul our Nation's infrastructure, I believe that we can scale up these innovative policies to help firms that participate in disadvantaged business enterprise programs grow and prosper. That is why I am working on legislation to incorporate these tools into the requirements for Federal transportation programs and to provide startup capital that will help communities most impacted by the COVID-19 pandemic.

I understand that Caltrans supports efforts to raise the cap on the size of transportation sector businesses eligible for disadvantaged business enterprise program. Mr. Omishakin, can you discuss how reforms like raising the cap and scaling up innovative local programs are critical to addressing the effects of past and present discrimination and helping disadvantaged business enterprises grow?

Mr. OMISHAKIN. Thank you, Senator Padilla. Thanks a lot for your statement and your question there, and thank you for your tenured leadership for our State, and now as our U.S. Senator, as well. Thank you very much.

Small businesses, we know are the life engine, the lifeblood, of the economy of this country. When we talk about recovering from the impacts of the pandemic, there is no doubt that a part of where we need to pay the most attention to is the small businesses that exist in all of our States across the country. Today, the cap on the DBE Program, the National DBE Program, Disadvantaged Business Enterprise Program, is roughly \$26 million. I think it is \$26.29 million.

We believe, and I think in reference to your question, Senator, we believe that if that ceiling is increased, if you increase that ceiling from \$26 million, roughly, to possibly \$39 million, which is not an arbitrary number, it is the number that the Small Business Administration uses, the SBA, if you brought that ceiling up from \$26 million to \$39 million to allow businesses to stay in longer in the DBA Program, we believe those businesses will become more competitive and have a longer opportunity to stay within the program and continue to do good work and flourish.

Today, in California, I will tell you that our program is roughly—our entire small business program is \$1.1 billion annually. Our plan is to try to grow that in this next year to roughly \$1.2 billion, so at least another \$100 million coming into small business in our department here at Caltrans.

We think this is an important step, and thank you for your leadership again, Senator, as you push for something like this.

Senator PADILLA. Thank you very much.

Senator CARDIN. Senator Cramer.

Senator CRAMER. Thank you, Mr. Chairman, again.

Director Panos, thanks again for being here and representing the rural perspective on a topic that is usually associated, obviously, with larger, urban areas.

Your testimony highlighted rural disadvantaged communities are often simply looking to get connected in the first place, as opposed to the many urban examples that are looking to reconnect. I am

going to ask you first of all to explain briefly that distinction, why it is important in rural areas like North Dakota.

But at the same time, I am going to ask you to comment specifically on the Reconnecting Communities Act as is being discussed today as a potential solution to some of these inequities. Based on the parameters within the bill that I know you have read, and from your time in North Dakota and Wyoming, can you think of any examples of projects that would have qualified for the construction grants as designed in this bill?

Mr. PANOS. Chairman Cardin, Senator Cramer, thank you so much for the question, and by the way, for this opportunity.

In States like North Dakota, the connection to school and health care or a job is unlikely to be traversed by a short bus ride or walking. What many in metro areas would call long distances are frequently involved in day to day travel here in rural States.

Improved and safer roads can mean a connection to a job or other essentials in a more reasonable, or at least a less unreasonable timeframe. Improved roads help farmers get our crops to the elevator, the grain elevators, more efficiently and safely.

To answer the second part of your question, based on my reading of the Reconnecting Communities Act, I can't recall any projects in either Wyoming or North Dakota that would qualify for it in its current form, although applicability may be unlikely. A close review of the specific facts, I think, will be appropriate at a time when the grant program is put together.

I would say that it is basically, as currently written, and some of our concerns are not geared to address rural circumstances, but more urban circumstances. I think we pointed out both in our written testimony and oral testimony ways that we can improve it so that we can take full advantage across the country in all States for this important, important work.

So I think it is a really significant point to say that, and to not lose this point that poor planning decisions have led to adverse circumstances for specific communities, and that includes our rural communities and rural States. For us, it is about reconnecting these communities, and in some cases, connecting them so that they can participate in a normal, daily life in a normal, daily economy. It is particularly true when we talk about the length between transportation and our agricultural economy, our energy economy, and our tourism economy here in North Dakota.

I hope that answers the question.

Senator CRAMER. Yes, it is very helpful. I might have droned on a little bit, both you, Director Panos and Omishakin, since you both have experience in very different States, but similar experiences.

One of you, and maybe it was you, Bill, who testified to what the formula would look like if we applied the \$15 billion to the formula. So, if Congress distributed the \$15 billion via the existing formula programs, it would equate to about \$95 million for North Dakota and \$1.4 billion for California over 5 years. That is if we were going to just do it for the formula.

So, for planning a budgetary certainty, would you prefer, and I would ask Director Omishakin first and then Director Panos, would you prefer guaranteed an increased funding, or would you rather

gamble with the application process for a DOT grant? No spin there, sir. No.

[Laughter.]

Mr. OMISHAKIN. Senator Cramer, it sounds like you used the word gamble. So, for us, the tradition for State DOTs has long been the use of the formula program. It is a part of our history to understand, just like you said, Senator, in this particular case, we would get roughly \$1.4 billion, \$1.5 billion. But we don't mind taking advantage of a competitive grant program.

We have been successful in the past in programs like the TIGER Program or INFRA Program, the various programs that have come out of USDOT; the State of California has been very competitive in those programs to be able to still bring money into the State, so we will be prepared either way, whether it be a formula type of program, where we would be guaranteed over a billion dollars, or a grant program. We believe, in California, we will be competitive either way. Thank you for that, Senator Cramer.

Senator CRAMER. As my time has run out, maybe Bill, why don't I restate the question a little different. How has North Dakota fared under the INFRA Grant Program that was part of the FAST Act?

Mr. PANOS. We have never received an INFRA Grant. We are one of the very few States that has not, and so I think that we definitely prefer badly needed formula funding in rural States across the country due to our population size and our participation in this amazing interstate highway system that we have in our country, and so we think that States can deliberate more quickly than a discretionary grant program, and it can be moved for a variety of needs throughout the country that relate to the topic of today's hearing, which is an important topic.

Senator CRAMER. Thank you.

Thank you, Mr. Chairman.

Senator CARDIN. Senator Duckworth.

Senator DUCKWORTH. Thank you, Mr. Chairman. I agree with much that has been said this morning about the historic underinvestment in communities of color and low income areas across the United States, both urban and rural. Step one is recognizing transportation inequity. Step two is investing in infrastructure that helps bring communities together, rather than keeping them apart.

So it is important that we are engaging on that first step today, and I thank the Chairman for calling this hearing. I hope the Committee's surface transportation bill does reflect today's discussions.

Director Omishakin, I want to discuss another area of historic underinvestment: Accessibility for individuals with disabilities. As you know, much of our transportation infrastructure built before the enactment of the Americans with Disabilities Act of 1990 is still in operation and still inaccessible to individuals with physical, sensory, intellectual, and developmental disabilities. Do you agree with me that overcoming accessibility inequities requires targeted investment and commitment by transportation officials to address these challenges, sooner rather than later?

Director Omishakin.

Mr. OMISHAKIN. Senator Duckworth, thank you for the question, and thank you for your leadership and championing issues like this

since you have been in office. As you mentioned, we are celebrating just over 30 years of the passing of the ADA. One of the main implementers of the ADA has been both city and State departments of transportation.

There is no doubt that, in California, we are committed to this, and we believe that targeted investment should continue. Our Governor, Governor Newsom, has set his umbrella for his leadership for the State as a California for all, meaning all people, regardless of ethnicity, regardless of ability, regardless of income.

So, across different spectrums in the work that we do in the State government in California, we absolutely believe that this continues to need to be a focus. ADA needs to be a focus, and targeted investment is a big part of how we will continue to see the difference and change that we want to see.

Senator DUCKWORTH. Thank you.

Does anybody on the panel disagree with me that addressing infrastructure accessibility should be a priority?

OK. Thank you.

Next week, I plan to introduce my All Stations Accessibility Program Act to help target accessibility opportunities across legacy transit and commuter rail systems.

I will give you an example. In Chicago, our El and our CTA is very proud that they plan on being completely wheelchair accessible in 20 years, and when they told me this, and they were very proud, and I applaud their efforts.

What I said to them was so, a half-century, 50 years, a half-century after the ADA is when persons with disabilities will finally have full access, and that simply is not enough, which is why I wrote the All Stations Accessibility Program Act. In areas across the Nation, significant transportation accessibility challenges remain. This is unacceptable, and we must do more to address this problem.

Director Omishakin, departments of transportation often view project planning, financing, and implementation in modal silos that can't inhibit delivery and limit connectivity across a system. Would you agree with me that Congress should be looking at ways to remove outdated, modal barriers in order to expedite project delivery and to save taxpayer dollars?

Mr. OMISHAKIN. Thank you, Senator Duckworth. I believe so. I think, truly, the way that we are going to create a robust transportation system and enhance where we are today is to absolutely connect all the modes as much as we possibly can. The current leadership at the USDOT, I believe, has made statements around this.

Secretary Buttigieg, I believe, has made comments around being a One DOT, essentially meaning that all the different branches, whether it be FTA, FHW, FRA, all need to be thinking about how to work together to achieve the goals for a great transportation system.

We are definitely doing that in California, as I lead this department. This is something that we talk about every single day, is how we can become more multimodal and more connected, and I think the same thing applies for the rest of us in the Nation, as well.

Senator DUCKWORTH. Thank you. I am glad to hear you say that.

Next week, I am re-introducing my bipartisan TIFIA for Airports Act with Senator Cornyn, so it is bipartisan, to extend the underused TIFIA loan program to major airport projects, like those at O'Hare, LAX, Dallas/Fort Worth.

Thank you all for being on the panel today.

I yield back; I am out of time.

Thank you, Chairman.

Senator CARDIN. Thank you, Senator Duckworth.

Senator LUMMIS.

Senator LUMMIS. Thank you, Mr. Chairman and Ranking Member, and I want to say hello to Bill Panos, one of our witnesses, who is with the great State of North Dakota now, and formerly the great State of Wyoming, so. Wonderful to have you on this panel.

Bill, I have a question for you. Could you talk just a little more about why formula funding is so important to rural States like ours?

Mr. PANOS. Senator Lummis, and Chairman Cardin; Senator Lummis, it is great to see you in this format, and thank you for the question.

Formula funding is important to all States, and certainly important to rural States like North Dakota and Wyoming for a number of different reasons. It can be used in more communities for more kinds of investment. It can be—including projects that improve or add capacity.

Plus, you can be confident that you have formula funds. We can plan longer periods of time in our States with the USDOT for those investments and with our private sector community, as well.

Our experience in North Dakota, as indicated in my previous response, is that you can never truly count on obtaining funds from a competitive grant program, but you certainly can from the formula program, which I think it was designed in its inception.

I would also suggest that we can use formula funds for a variety of different programs. I know that the Chairman mentioned in his opening comments the TAP Program, which we have taken advantage of—thank you, Chairman—we have taken advantage of throughout our State, and many rural States have, to improve our cities and walkability and connected systems and multimodal approaches to transportation in rural States.

So, formula funds are helpful for a variety of different things, including multimodal, including bike and pedestrian safety, including increasing capacity, connecting communities, reconnecting communities. We use formula in cooperation with our tribal nations when we can and have expanded our use of that, for ADA Programs, et cetera. So I think that the formula offers choice and flexibility that we would not have with a discretionary focused program.

Senator LUMMIS. Thank you. What kinds of equity issues are different for rural States versus urban areas, especially like our States of North Dakota and Wyoming, which incidentally, are the two States that lead the Nation in terms of per capita contributions to the highway fund?

Mr. PANOS. Chairman Cardin, Senator Lummis, our States are oftentimes looking to connect our communities, and connect them in a way which is sustainable and resilient. Although we don't have the kind of flooding that you see on coastlines or near oceans, like

Houston and maybe in my native State of California, we do have flooding, and we have lots of flooding in North Dakota, and it is significant.

I think that connecting these communities in a resilient way, so that they can access their community in flood season, that they can access their communities during severe storms, that kind of thing, is really very critical. A lot of it is just basic, connective roads and bridges in these communities and basic transportation.

That is significantly different than the urban connections that a lot of the focus has been in the hearing today, not to say that either are more important or less important. It is all very important; it is just different.

Of course, this Committee has been great at understanding the differences among the 50 States. Along with my colleagues in California, and colleagues around the country, we have been, I think, really focused on the differences across the country.

Senator LUMMIS. Thank you so much, and again, it is so great to see you.

My next question is for Mr. Polzin.

Dr. Polzin, it is my understanding that the current formula programs have the guardrails in place already to solve the sorts of equity issues that are being discussed here today. Do you feel that the current formula programs can fully capture these issues in the planning phases?

Mr. POLZIN. I think they can, and I think they have, and they have increasingly over time. I think there has been a recognition of some of these issues. As folks have pointed out, in looking at examples across the country from Houston to Baltimore to New York, et cetera, communities are addressing and dealing with these issues already.

I personally think that the best decisions are made when the decisionmakers are faced with the full spectrum of choices and the full spectrum of discretionary opportunities. Then they involve all of the stakeholders and make the best decisions, to the extent that we can strain or parameterize those decisions, just as we alluded to the fact that we have tended to do that at the Federal level with modal silos.

I think that results in some sub-optimal decisionmaking, so yes, I am very comfortable with giving those resources to the folks that are in the best positions to discern the best decisions for their communities and for the stakeholders in those projects at the local, regional, and State levels.

Senator LUMMIS. Thank you very much.

Thanks, witnesses.

Thank you, Mr. Chairman. I yield back.

Senator CARDIN. Thank you, Senator Lummis.

We now go to the Chairman of the full Committee, Senator Carper, who is with us.

Senator CARPER. Thanks, Mr. Chairman, and my thanks to you and to our Ranking Member on our Subcommittee for holding, we always say this is an important hearing. Well, this is an important hearing, and it is one that both our Chair and I, and I think a number of others on this Committee, are especially interested in and mindful of.

I want to thank Senator Cardin, Senator Padilla, and others who joined us, Chris Van Hollen on legislation that is being discussed here to some extent today. Thanks for having this hearing, Mr. Chairman and Ranking Member.

Before I turn my first question to Mr. Omishakin and Ms. Davis, let me take a moment to explain why this discussion is of particular interest to me and some of the folks in my home State.

As you know, colleagues, the development of our national highway system was meant to bring communities together and to connect neighborhoods to opportunity, and also to connect them to prosperity.

Sadly, we know that too often, it hasn't turned out that way for a number of Americans. Communities of color and our rural communities, disadvantaged communities were oftentimes harmed by this infrastructure development. Pockets of the country were left behind, cut off from transportation access. Highways were built in ways that divided communities instead of bringing them together.

The legislation that Senator Cardin, Senator Padilla, Senator Van Hollen, and I and others recently introduced is called the Reconnecting Communities Act. Our legislation seeks to correct some of the injustices that I have just mentioned.

Our bill would connect and revitalize areas that have been harmed by the development of our national highway system, and I look forward—we look forward—to working with our colleagues on this legislation so that we might right some of the wrongs of our past and unite our communities for a brighter future together.

With that, Mr. Chairman, Ranking Member, I would like to turn to some questions. Maybe by the end of the hearing, I can pronounce Mr. Omishakin without hesitating, and my last question will be asking him to tell us about where his name comes from. We have a lot of interesting names, but that is near the top of the list.

Mr. Omishakin, here we go. We heard—this is also for I think, for Ms. Davis. We heard a lot about the challenges faced by both the urban and rural areas. The challenges for both environments are undeniable, and we have done a lot of work to provide set asides for rural areas in our current transportation programs, and that includes set asides and special rules for rural areas in the INFRA Grant Program, the Surface Transportation Block Grant Program, the Bill Grant Program used to be called TIGER, and the TIFIA Program.

Here is my question. Why do you think that we have made special rules and set asides to meet the needs of rural areas, but have not taken the same approach for addressing the critical and unique needs of urban areas, and do you agree it would be appropriate to do so?

That is a question for both of you. Thank you.

Ms. Davis, Mr. Omishakin.

Mr. OMISHAKIN. Let me give a quick shot, Senator, but first, thank you for your leadership on the Committee. I have had a chance to see you at AASHTO, the annual meeting, a few times.

Senator CARPER. Oh, yes. How are you doing? Nice to see you.

Mr. OMISHAKIN. Very well, and I really appreciate it. By the way, the name is Nigerian, and you do an excellent job pronouncing it, actually.

Senator CARPER. Thank you. I practiced all last night, as well, just in case.

[Laughter.]

Mr. OMISHAKIN. To your question, I believe we should, as a Nation, and I think we are doing that more and more, trying to get closer to the issues that we have in common, and not spend a lot of our energy talking about the things that make us so different, and the same applies for transportation.

Director Panos from North Dakota just talked about, very eloquently, the challenges that rural States face as it relates to climate change issues, as well, the fact that they see flooding, and they sometimes may see a fire. Those are issues that plague a large urban State like California, urban in a sense of many urban areas.

There are a lot of rural areas in California, as well. I think we can make targeted investments that help both urban States and urban cities, and rural States and rural cities, as well. I think those things that unify us, that connect us, is where a majority of our attention should be paid moving forward.

I don't know if Ms. Davis got a chance, she may have had to run. I don't see her on anymore, but Senator, hopefully that answers your question just a little bit. I think targeted investment in both.

Senator CARPER. All right. Thank you, sir. Good to see you.

I think it looks like—it says we have lost Ms. Davis. I hope we can find her again.

My time has expired. Thanks, Mr. Chairman.

Senator CARDIN. Thank you, Senator Carper.

I want to explore the issue of local input a little bit more. I think there is general consensus here that in the equity issues, we have challenges of communities that have been divided or isolated as a result of transportation programs. We have consensus that the formula funding program is critically important and that it gives predictable flow of Federal support for transportation programs in our States, that we want to get as much local input as we possibly can.

So, let me just start with one of the examples that I mentioned in my opening statement, which was the Gwynns Falls Greenway in Baltimore. Mr. Olmsted, who originally designed Baltimore, connected all communities through greenspace, but over time, obviously, that got built over by housing and by roads, and communities got isolated.

When I was a member of the House of Representatives, I sought to get Federal support to reconnect the communities along the Gwynns Falls, that are mostly minority communities and isolated communities through a pedestrian bike path, but it was a hard time to do it through the formula funding.

At that time, we had congressional earmarks, and I was able to use an earmark in order to get the communities connected. It was hailed as one of the major equity issues in our community of reconnecting communities.

As a result of that experience, I worked with then our former colleague, Senator Cochran, to develop the Transportation Alternative Programs, that have been mentioned here, to give local communities more input on how moneys can be spent in order to deal with equity issues in the community. I think most now recognize that

as a valuable program. I have heard several of the witnesses talk about the TAP Program, and I appreciate that.

But one of the challenges is that these programs are very much controlled by the States, even though they are for the local communities. The question is, how much more can we give control to local communities in order to deal with the equity issues, such as programs like the TAP Program?

I am sorry Ms. Davis is no longer on the call, because she could give us a perspective from Houston and Nashville where she had responsibility.

I would appreciate any of our panelists who are willing to tell us how we can improve local input in regard to funds that go through the State formulas to deal with equity issues.

Mr. POLZIN. Let me comment briefly on that, if I may.

It is important when you think of addressing local priorities and local issues that you really look at the full spectrum of resources that might be available to address those, and those can include local and regional resources, as well as State and potentially Federal resources.

There is certainly a constituency that says Federal funding is so modest that it needs to be focused on things that are of critical interest at the national level, and that State and/or local resources should be targeted toward more local priorities and initiatives that might vary fairly dramatically across the country.

Now, having said that, and recognizing the importance of Federal dollars, even at the local level, there are other opportunities, for example, through some of the discretionary programs to leverage Federal resources to accomplish those things, like INFRA and TIGER type programs as well. There are certainly opportunities through reauthorizations that identify the critical priorities that will help guide the overall programs as well, so there are a number of opportunities to do those.

Oftentimes, people naturally look for somebody else to pay for their priorities, but we need to, again, at the local level, look at the full spectrum of opportunities, including local resources. And you might note that more than half of States have increased their funding for transportation over the past few years. Numerous areas have been successful with referendums, and they are at the discretion to direct those resources to local priorities.

Senator CARDIN. Mr. Panos, let me direct this to you. You have been very effective in saying the States, the formula programs, are very important. They determine priorities.

How can we get greater local input in regard, particularly to the TAP Program, so that local communities—and you mentioned this during your testimony—have more input as to how the transportation decisions are made in your State?

Mr. PANOS. Chairman Cardin, thank you for the question.

I think that even through the formula, the emphasis on expanding local engagement would be helpful, not only in larger States, but smaller States like North Dakota. That is to say, we have great programs now through our incredible partners as the USDOT, through our STIP Planning Program, which is our State Transportation Improvement Plan, through a variety of other plans on deploying the formula funds. We have got a good start.

The interesting part of the question is that there is a huge difference between local government, let's say in a larger State than in a smaller State. Here, some of our largest cities are 60,000 people. That is it, and they go down from there. So, those we are engaged with on a regular basis.

In fact, we have three MPOs in North Dakota, which is not common in northern Plain States, but very common in some of our larger States. The rest of the communities are so small as to require full engagement by the State DOT with them.

We have another classification of local government called townships here in North Dakota, which are extremely small, and under 100 people in some cases.

In fact, our legislature this year had passed some regulations and funding to allow the State DOT to work better with them. This also, I would mention, includes our tribal nations. We have great partnerships and agreements with our tribal nations throughout our State. These oftentimes underserved communities need more help from the State.

So I think we are positioned, State DOTs are positioned, in rural States to engage even more through the formula funding with our local communities in moving these programs forward. I hope that helps a little bit with the answer to your question.

Senator CARDIN. Thank you. Thank you very much.

We will go now to Senator Kelly.

Senator KELLY. Thank you, Mr. Chairman.

I would like to address this first question to Mr. Panos, and I would like to discuss the condition of roads on tribal lands.

Like North Dakota, Arizona is home to large swaths of tribal lands that contain thousands of miles of roads administered by the Bureau of Indian Affairs, and also administered by tribal governments.

Nearly two-thirds of these roads are unpaved dirt or gravel roads, and frankly, many of them are unsafe. School buses transporting kids need constant repairs at a much higher rate than school buses that travel on paved roads. The CDC estimates that Native Americans using these roads suffer crashes and pedestrian collisions up to three times higher than non-Natives.

Mr. Panos, how would you describe the road system on tribal lands and their impact on the daily lives of Native Americans?

Mr. PANOS. Mr. Chairman, Senator Kelly, thank you. Thank you so much for your question. As you know, like Arizona, the Northern Plains States have numerous areas of tribal nations in all of the five States that my written testimony was coordinated with, Montana, North Dakota, South Dakota, Wyoming, and Idaho, have significant areas, like many of the States in the West, where there are tribal nations.

We, as I described earlier, work extensively with them and are seeking even more coordinated support for them with BIA, with authorities given to us by the State, with authorities given to us by the USDOT, through the formula, with authorities given to us through BIA, to work with them more and more.

On many of these tribal nation areas, the little things matter. If we can bring gravel in to help re-gravel a road, or we can improve with a stop sign or other kinds of things, they make a world of dif-

ference to these areas and improve safety significantly, so a little bit of money goes a long way.

Again, I would focus back on the formula. Creating more authorities within the formula to allow us to do these kinds of things that are necessary with local government, with tribal nations, I think would help and provide that kind of support across our country.

So, I hope that answers your question, and that is been my experience here in North Dakota and Wyoming, and I am sure it is the experience in Arizona, as well.

I must say one more thing. The DOTs are doing a great job at reaching out and engaging the BIA, engaging tribal nations, every single day on public transit, on roads, on bridges, on resiliency, those kinds of things, but more can be done.

Senator KELLY. As I have spent time on the Navajo Nation, a number of times, when I visited, this issue has come up. It comes up frequently, and it affects not only the condition, there are other effects here. As an example I would give, it affects the ability for Native schools to get teachers when you have to travel a long distance on a dirt road. It is not a practical thing or a desirable thing for teachers that are commuting to tribal schools.

So, Mr. Panos, would you agree that funding high priority travel projects has benefits for non-Natives, as well?

Mr. PANOS. Senator Kelly, Chairman Cardin, yes. I am glad you brought up the example of schools. For about 5 years, I was the school construction executive for the State of Washington and built about 500 schools a year for about 5 years there, K-12 schools, throughout the State, including all the tribal nation schools. Based on that experience, I would say yes to your question.

Senator KELLY. Thank you.

I yield back.

Senator CARDIN. Thank you, Senator Kelly.

Senator Whitehouse. We understand Senator Whitehouse had to get off the video line.

Senator Cramer, anything further?

Senator CRAMER. I don't think so, Mr. Chairman, other than thank you for this, and thanks to all of the witnesses. They have really been excellent, and I appreciate it. I think it is very helpful.

Senator CARDIN. Well, I concur with Senator Cramer's comments about our witnesses. I think this hearing has been extremely helpful. I am certain that there is going to be some follow up information that you all can help us with as we start to craft the legislation.

I know that Chairman Carper and Ranking Member Capito are in open and active negotiations, where Senator Cramer and I are engaged in that also. I think your testimony today has really helped us in regard to this.

I understand that Senator Sullivan may be en route. With respect to him, I will hold the hearing open for a few minutes, if you all could be a little bit patient.

Perhaps I will ask one additional question at this point, and we will see whether Senator Sullivan arrives.

In regard to the safety issues, we talked a little bit about that, but we do know that the numbers of pedestrian and bicycle accidents have increased pretty dramatically. We know that there is

more vulnerability in an already vulnerable community to these types of safety issues.

Is there anything specific that we can do in a reauthorization bill to help deal with pedestrian and bike safety that doesn't infringe upon the basic structure of the program or formula funding that would be helpful as you deal with these issues?

Mr. Omishakin, I will start with you this time.

Mr. OMISHAKIN. Thank you, Chairman, for that question. Hopefully you can still hear me well.

Senator CARDIN. We can.

Mr. OMISHAKIN. OK, good. So, this issue, in particular, is probably one of the most important that is plaguing our sector today. I can't state more clearly how important this issue is. As a Nation, today, we are losing nearly 37,000 people using our transportation system.

In California, we represent 10 percent of those fatality numbers, roughly 3,600 people, 3,700 people die on the transportation system every single year. That is 10 a day in our State, 10 a day. Nearly 3 of those 10, nearly 3 of them, are people who were walking and biking and trying to get access to transit.

We believe that additional funding for safety, not just NHTSA, NHTSA is an important part of this because of the behavioral part of it, but also at DOT and at Federal Highways. Additional investment there will be big.

From a policy standpoint, one of the things that we have been talking about more and more is a safe systems approach to addressing the safety challenges that we face on our transportation system.

So not just thinking about one particular part of the challenge, but thinking about every single segment of the transportation system and how it fits in together to try to address the issues that are coming up.

So, additional funding, no doubt, making some adjustments from a policy standpoint to be more supportive of safety, and keeping this issue absolutely on the front burner.

I believe very much in everything that we just discussed on equity, and if you look at the equity implications of this as well, the people in minority communities are taking a heavier hit here, as well. So, this is a very important issue, and I really appreciate you, Senator, Chairman, for raising this question about what we can do more in the safety space.

Senator CARDIN. Thank you for that reply.

As we look at the reauthorization bill, we might be asking for specific guidance as to how we can, if we direct funds, how is the most flexible way to allow you to deal with the local challenges that you have, but still focus on the reality that you need to reduce the vulnerability of pedestrians and bicyclists for injury. It is a huge problem in my State of Maryland.

I think in every State, we have seen escalating numbers of pedestrian and bicycle accidents, so thank you for that input. We will be back to you as to how, perhaps, we can be helpful in the reauthorization bill.

Senator Sullivan.

Senator SULLIVAN. Thank you, Mr. Chairman.

One issue, and I am just going to put this up there for all the witnesses, is the issue when there is a discussion on racial disparity in infrastructure, one thing that happens too often in my State is that you have certain groups, outside groups, some of the more extreme environmental groups, that want to shut down economic opportunity in places like Alaska. No roads, no resource development, no opportunity to access Federal lands. That is kind of a common theme.

But the groups that that impacts, at least in Alaska, are oftentimes the indigenous communities. So, there is a big push, for example, right now, the Biden administration, a big push to delay any resource development projects in my State. That really impacts the indigenous populations.

That element of racial disparity on infrastructure, in my view, at least in my State, often gets overlooked. I have been raising this with the Administration, and saying if we are going to address some of these transportation and infrastructure challenges from an equity standpoint, don't forget the people whose economic livelihoods get shut down when certain outside groups, from my State's perspective, come in and say, no, we don't want any roads in Alaska. We don't want any access to resources. We don't want any oil and gas development.

The people that are often hurt are the people that the whole point of racial equity is supposedly meant to serve, so I would like a comment from our witnesses on that, because I think sometimes these issues can be viewed in an urban-rural perspective.

But in my State, they are often very much issues that some of the more extreme environmental groups try to impose on Alaskans have the biggest and most negative impact on the indigenous populations, and has a real negative impact there.

I would welcome a comment or suggestion from any of the witnesses on that issue, because it doesn't come up enough, and at least in my State, it seems to be forgotten.

Mr. POLZIN. I will be glad to make a brief comment with respect to that.

The issue, historically, mobility has been perceived as a contributor to quality of life and economic opportunity. It is access to jobs, worship, health care, et cetera. A lot of our investment in transportation has been to stimulate that, to improve the economic opportunity and quality of life.

To the extent that initiatives, whatever they are, be it environmental motives, energy motives, or mitigating externalities of transportation, to the extent that they offset some of the mobility opportunities, they will have other consequences, including consequences on the economy and quality of life of folks. So I think it is very important in that context that the full set of issues and factors are really at the table.

Addressing the safety issue before, there is another classic example of that. If we don't provide adequate transportation capacity in our premium systems, and that demand spills over onto local streets, it increases the chances of safety risk quite dramatically. So we need to recognize those tradeoffs and deal with them and address those in our decisionmaking, because mobility does provide economic opportunity.

Thank you.

Senator SULLIVAN. Great. Thank you.

Anyone else what to comment on that?

I will just give you another example. Again, Alaska is quite unique, but we have over 200 communities, 200 that are not connected by roads. Yet, when you try to build a road anywhere in my State, you will get 20 lower 48 environmental groups to stop the building of a road. It is really frustrating for us in Alaska.

Any other thoughts on these issues of access in communities of color? I mean, these are the indigenous people of my State, which is a great group of Americans who often get left out in some of these discussions.

Mr. OMISHAKIN. Senator, I will briefly say—Toks Omishakin from California—in our State, we have the largest tribal nation population in the country. There are more than, I think it is 109 federally recognized tribal governments in California. That is nearly a million people with that background in our State.

I think what we try to focus on, and what we are going to try to focus on moving forward when we talk about equity is truly listening to those communities, those nations, those governments, to see what their needs are.

It is true that sometimes building a road will have, just like we have talked about very well this morning already, that sometimes building a road can have significant negative impacts on a community that we sometimes overlook. But if a community truly needs a road, and they need that access for their livelihood and for their upward mobility moving forward, I think it is our responsibility as a DOT, as a State department of transportation, or a city department of transportation, to engage them and listen to them and figure out how to create that better access for them, if that is truly what's needed.

We need to be careful, nonetheless, and use the environmental process that we have, NEPA, use those existing processes to make sure that if we are building it, it is not going to mean increased challenges from a climate standpoint, from an environmental standpoint, from a public health standpoint.

We have to keep those things on the front burner, as well, but no doubt, we have to listen to communities and let that guide our decisionmaking as we make transportation investments moving forward.

Senator SULLIVAN. Great, thank you.

Thank you very much, Mr. Chairman.

Senator CARDIN. Thank you, Senator Sullivan.

Let me again join with Senator Cramer in thanking our witnesses. I think this has been a very helpful hearing to the mission of our Subcommittee and full Committee, and with that, the Subcommittee will stand adjourned.

Again, thanks to our witnesses.

[Whereupon, at 11:45 a.m., the hearing was adjourned.]

[Additional material submitted for the record follows:]



## Alternative Fuels & Chemicals Coalition

*Advocating for Public Policies to Promote the Development & Production of  
Alternative Fuels, Renewable Chemicals, Biobased Products, and Sustainable  
Aviation Fuels*

**May 25, 2021**

The Honorable Benjamin L. Cardin  
Chairman  
Subcommittee on Transportation  
and Infrastructure  
United States Senate  
Washington, DC 20510

The Honorable Kevin Cramer  
Ranking Member  
Subcommittee on Transportation  
and Infrastructure  
United States Senate  
Washington, DC 20510

The Honorable Thomas Carper  
Chairman  
Senate Committee Environment &  
Public Works  
United States Senate  
Washington, DC 20510

The Honorable Shelley Moore Capito  
Ranking Member  
Senate Committee Environment &  
Public Works  
United States Senate  
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Dear Chairman Cardin, Chairman Carper, Ranking Member Moore, Ranking  
Member Cramer, and Members of the Subcommittee:

The Alternative Fuels and Chemicals Coalition (AFCC) appreciates the  
opportunity to submit a statement for the record to the United States Senate  
Committee on Environment & Public Works and the Subcommittee on  
Transportation and Infrastructure hearing held on May 11, 2021, called,  
"Equity in Transportation Infrastructure: Connecting Communities, Removing  
Barriers, and Repairing Networks across America."

### **Introduction**

AFCC is a collaborative government affairs effort organized by the Kilpatrick  
Townsend & Stockton law firm and American Diversified Energy. AFCC was  
created to address policy and advocacy gaps at the federal and state levels  
in the renewable chemical, bioplastics/biomaterial, cell-cultured food  
ingredients, single cell protein for food and feed, enzymes, alternative fuels,  
biobased product and sustainable aviation fuel (SAF) sectors. AFCC member  
companies work on development and innovation and the supply,  
manufacture, and distribution of feedstocks, renewable chemicals, food,  
feed, fiber, bioplastics and biomaterials, and biofuels impacting the biobased  
economy.

A Collaborative Government Affairs Effort  
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AFCC and its member companies applaud the Senate Subcommittee on Transportation and Infrastructure in addressing equity in transportation and infrastructure and proposing the removal of barriers and repair of networks across America.

### **Obstacles to Infrastructure Innovation**

There is a major obstacle that stands in the way of being able to use innovations in the construction and repair of infrastructure: state construction and repair specifications, which must be followed precisely, adhere to traditional construction, and repair methods, and preclude the use of innovations. Use of an innovation requires a waiver, which often allow only for the use of a single innovation, or only allow for its use in a single project. For this reason, state construction and repair specifications pose a significant impediment to using innovations.

In most states, contracts are awarded to the lowest bidder without taking into account the cost and time savings that may be represented by an innovation that may significantly extend the useful life of infrastructure, provide better performance, or use a high content of recyclable material. Furthermore, several states have restrictions on the amount of recyclable material that can be used in a given formulation for repairing roads and highways or limit its use solely to bedding material.

**Because of this, localities, states, and the nation are deprived of the benefits of technologies and construction methods that enable high performance, are cost effective, improve infrastructure sustainability and longevity, reduce the use of energy, make use of recycled materials and balanced mix designs, and reduce greenhouse gas (GHG) emissions.**

The Department of Transportation's (DOT's) Center for Advancing Innovations has developed excellent programs to promote the development of innovations and encourage states to adopt these innovations. But DOT does not require that states make the necessary modifications in their construction and repair specifications to be able to consider and use innovations on an ongoing basis as a requirement for receiving federal funding.

AFCC proposes that the Committee on Environment & Public Works include language in the Surface Transportation Reauthorization Act of 2021 that requires DOT to stipulate that all federally funded transportation and infrastructure projects must allow contractors to propose the use of innovations, for states to review their potential for saving time and money

and offering improved performance over the construction and repair methods set forth in their specifications, and to take these cost and time savings and improvements in performance, infrastructure sustainability and longevity, and reductions in GHG emissions into consideration when awarding contracts.

AFCC also proposes that DOT's Federal Highway Administration should remove the barriers for states using balanced mix design principles and allow for the use of balanced mix design principles and performance-based designs in roadway projects that ultimately enable high performance pavements and improve infrastructure sustainability by allowing for the increased use of recycled content.

AFCC also proposes that the Committee on Environment & Public Works include language in the Surface Transportation Reauthorization Act of 2021 to ensure that federal highway funds will still be available for the use of innovations and new innovative designs, and will not be revoked, for states or localities using innovative technologies and balanced mix designs in their construction and repair projects.

AFCC and its member companies urge the Committee to create a pilot program to encourage the Federal Highway Administration to investigate effective ways to incentivize states to implement innovative technologies and balanced mix designs that reduce GHG emissions of pavements.

According to current DOT specifications, only a small amount (around 20%) of recycled content can be reused as "Reclaimed Asphalt Pavement" (RAP). The rest gets stockpiled or downcycled into other lower value applications. This is especially an issue in high population density urban areas with large pavement systems in which large stockpiles of pavement millings are constantly accumulating.

Low utility of millings in new pavements means that a high amount of GHG-intensive virgin (new) construction material is used in large volumes for new roads and reconstruction. This process of utilizing new raw materials contributes higher emissions and is not a climate smart practice.

The hesitation to adopt innovative climate smart practices such as increasing the use of RAP in the U.S., at the federal, state, and local levels, continues to add high energy costs, waste, and pollution. The current specifications actively restrict the use of RAP and incentives to implement climate smart practices are limited.

Innovative technologies based on renewable resources and recycling already exist today. These technologies can be implemented to mitigate climate change. The National Association of Paving and Asphalt (NAPA) in a 2019 report showed significant ways in which RAP is reducing environmental impact: In projects where RAP was used, there was an overall emissions reduction of 2.4 million metric tons of CO<sub>2</sub>e, which is equivalent to the annual emissions of 520,000 passenger vehicles.

If the U.S. increased its average RAP use from 20%, which is a typical specification limit, to 40%, it could deliver 2 MM Metric tons of GHG reduction per year, which equates to removing 400,000 vehicles from the roads, \$3 billion in cost savings, and 18MM metric tons of landfill reduction.

Improving the Nation's aging infrastructure with innovative technologies will provide job security, reduce energy, and mitigate climate change.

Thank you for the opportunity to provide statement for the record.  
Sincerely,

A handwritten signature in blue ink, appearing to read 'Rina Singh', with a stylized flourish at the end.

**Rina Singh, PhD.**  
**Executive Vice President, Policy**  
**Alternative Fuels & Chemicals Coalition**