ISSUES BRIEF: IIJA AND THE HIGHWAY FUNDING CONUNDRUM

Equity and emissions concerns related to new investments in the U.S. highway system

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Introduction

The pressing need to repair U.S. roadways was one of many motivations for the 2021 Infrastructure Investment and Jobs Act (IIJA). As many as 43 percent of U.S. public roads are in subpar condition, an infrastructure crisis that will require as much as $786 billion to address. At the same time, the greenhouse gas (GHG) emission reductions necessary to mitigate climate change will require a systemic transformation of our transportation infrastructure that prioritizes transit, Complete Streets, and electrification.

Furthermore, climate change impacts, like extreme heat and flooding, pose further damage to roadway infrastructure. Over 60,000 miles of U.S. roads and bridges in coastal areas are at risk from sea level rise. Inland, increases in precipitation are expected to lead to more flooding and mudslides, damaging transportation networks. The American Civil Society of Engineers (ACSE) forecasts that rising temperatures could cause as much as $19 billion in damages to pavement annually by 2040. Moreover, the various environmental justice impacts of the current transportation system present an opportunity to incorporate equity in infrastructure changes.

New investments from IIJA have the potential to address these intersecting needs. Whether funded projects tackle transportation system repair in a way that contributes to emission reduction goals, climate resiliency, and equity largely depends on how funds are dispersed, a decision that will be made primarily by state transportation agencies.

New Federal Investments in Highways

To address these needs, IIJA allocated a historic $643 billion of federal funding over five years to surface transportation projects spanning highway, public transit, and rail infrastructure. About two-thirds ($432 billion) of these funds are earmarked for the construction, repair, and modification of highways and bridges. The Federal Highway Administration (FHWA) will distribute the bulk of these funds as outlined in Figure 1. This substantial investment in surface transportation spending provides FHWA with the resources to address pressing roadway repair and maintenance needs. It also offers the potential to make good on public commitments to transform U.S. roads such that people and goods can move more sustainably. For formula programs in particular, the types of funded projects will be largely determined by state agencies.

Figure 1: New IIJA Funding for FHWA Programs

Program Name	**Funding (Billion $)**
National Highway Performance Program	148.0
Surface Transportation Block Grant Program	72.0
Bridge Programs	39.3
Highway Safety Improvement Program	15.6
Congestion Mitigation	13.2
Promoting Resilient Operations for Transformative, Efficient, and Cost-saving Transportation (PROTECT)	8.7
Electric Vehicle Charging Programs	7.5
National Highway Freight Program	7.2
Carbon Reduction Program	6.4
Other	6.2
Tribal Transportation Programs	4.3
Metropolitan Planning	2.3
Federal Lands Transportation Program (National Park Service)	1.7
Federal Lands Access Program	1.5
Bureau of Transportation Statistics	1.3
Appalachian Development Highway System	1.3
Railway-Highway Crossings Program	1.2
Reconnecting Communities	1.0
TOTAL	338.6

This table summarizes the amount of funding allocated to FHWA programs by the IIJA. Bridges includes the Bridge Formula Program and the Bridge Investment Program. Tribal Transportation includes the Tribal Transportation Program, Tribal Transportation Facility Bridges, Nationally Significant Federal Lands and Tribal Projects, and the Tribal High Priority Projects Program. Electric vehicle charging programs include the National Electric Vehicle Infrastructure Formula Program and Charging and Fueling Infrastructure Grants. Other includes all other FHWA programs noted in the White House IIJA Guidebook not otherwise specified above. Note, this figure does not include programs run through the DOT Office of the Secretary like RAISE and INFRA.

Source: Atlas Public Policy analysis using data from the Infrastructure Investment and Jobs Act and the White House IIJA Guidebook, 2023.

Roughly 65 percent of the funding the FHWA is receiving from IIJA will be distributed to states via the National Highway Performance Program and the Surface Transportation Block Grant Program. The National Highway Performance Program (NHPP) has been allotted a total of $148 billion for FY22-26 to maintain the roads and bridges comprising the National Highway System, a 27 percent increase in previous program apportions by the FAST Act.

The Surface Transportation Block Grant Program' was allocated $72 billion, a 24 percent increase in funding, to provide flexible grant funding to best address state and local transportation needs. This allocation nearly doubled funding for the Transportation Alternatives (TA) Set-Aside to an annual total of $1.4 billion and expanded eligible project types under TA to include developing structures to help animals safely cross roads, deploying electric vehicle (EV) charging and vehicle-to-grid infrastructure, implementing advanced transportation technologies, and integrating features that enhance the resilience of surface transportation infrastructure. Given the range of potential uses for these funds, it is important to remember that state transportation agencies will ultimately decide what type of projects are supported.

The remaining funding will go towards efforts like bridge repair, highway safety, EV infrastructure deployment, air quality improvement, carbon emissions mitigation, climate resilience, and reconnecting communities. Some key programs include:

- The Congestion Mitigation & Air Quality Improvement Program ($13.2 billion) will help State and local governments develop transportation projects and programs to meet Clean Air Act requirements.
- The Carbon Reduction Program ($6.4 billion) will support the reduction of transportation emissions and will fund projects like public transportation, congestion management, and the construction of pedestrian infrastructure.
- The PROTECT Formula Program ($7.3 billion) will fund projects that make surface transportation more resilient to natural hazards.
- The National Electric Vehicle Infrastructure (NEVI) Program ($5 billion) will support the build out of public charging.
- The Reconnecting Communities Pilot Program ($1 billion) will address barriers to mobility, access, or economic development in communities harmed by past transportation infrastructure projects by removing, retrofitting, or modifying infrastructure like highways or rail lines.

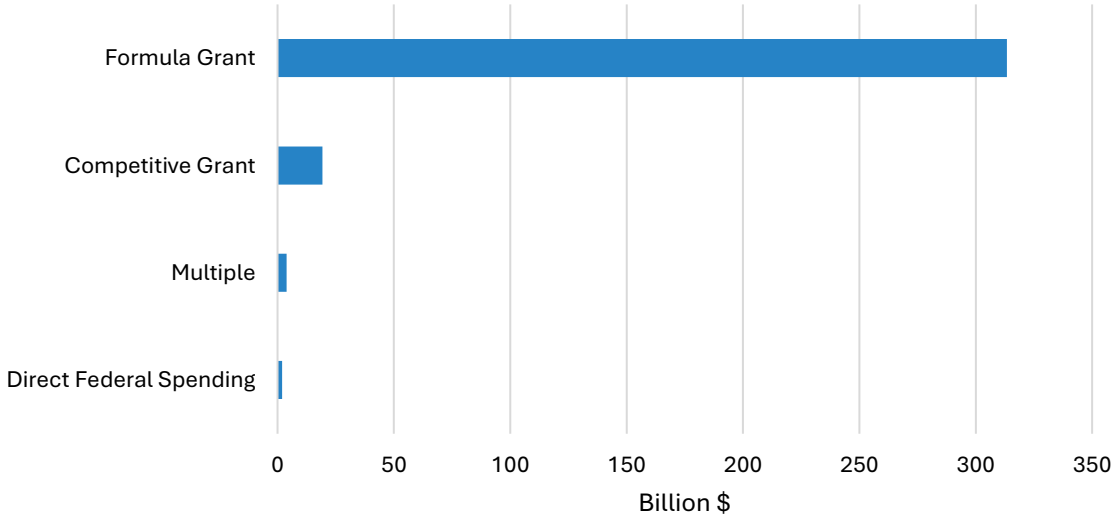
Key Tensions and the Role of States

As IIJA funding is distributed by FHWA across these programs, the extent to which program administrators prioritize repair and resilience projects has been of interest to a range of policy stakeholders. How much funded projects invest in reducing emissions will be a primary driver of IIJA's impact on climate change mitigation. Consequently, advocates of climate action have raised concerns that an increase in funding to FHWA will expand highways and potentially perpetuate car dependency, which in the absence of support for vehicle electrification, would stifle emission reduction goals.

Equity and social justice advocates have also flagged concerns associated with new highway construction. Historically, highway expansions have disproportionally impacted disadvantaged communities and communities of color. For example, when the Federal Aid Highway Act of 1956 ignited the development of the Interstate Highway System, many associated projects cut through Black communities, displacing residents, bifurcating neighborhoods, and leaving lasting economic and air quality impacts. A portion of IIJA funding seeks to address these racial and socioeconomic inequities through the Reconnecting Communities Pilot Program—a new program designed to restore connectivity to communities that have been harmed by transportation infrastructure in the past. However, concerns remain that expansion projects funded by other FHWA programs could follow historical patterns and further displace disadvantaged communities.

Ultimately, how these funds are used will be primarily determined by state transportation agencies that receive formula grant program allocations. In an effort to influence state decision-making, the Biden Administration published a memo in December 2021 advising states to follow the U.S. Department of Transportation's "Fix it First" strategy. This approach would have encouraged, although not prohibited, that priority funding go to repair and maintenance of existing infrastructure, as well as transit and EV-friendly projects, over projects that expanded highway capacity. The guidance was walked back earlier this year after backlash from some states and industry groups.

Figure 2: Most FHWA Funds Will Be Allocated by State Transportation Agencies



This chart illustrates how the FHWA funding is being distributed. Formula Grant funds are distributed to state transportation agencies, who in turn determine what types of projects are supported. In contrast to formula grant programs, project activities that receive support via competitive grant programs are selected based on evaluation criteria by FHWA. Multiple includes programs being implemented via more than one type of funding, and could include a mix of competitive grants, categorical grants, and cooperative agreements.

Source: Atlas Public Policy analysis using data from the Infrastructure Investment and Jobs Act and the White House IIJA Guidebook, 2023.

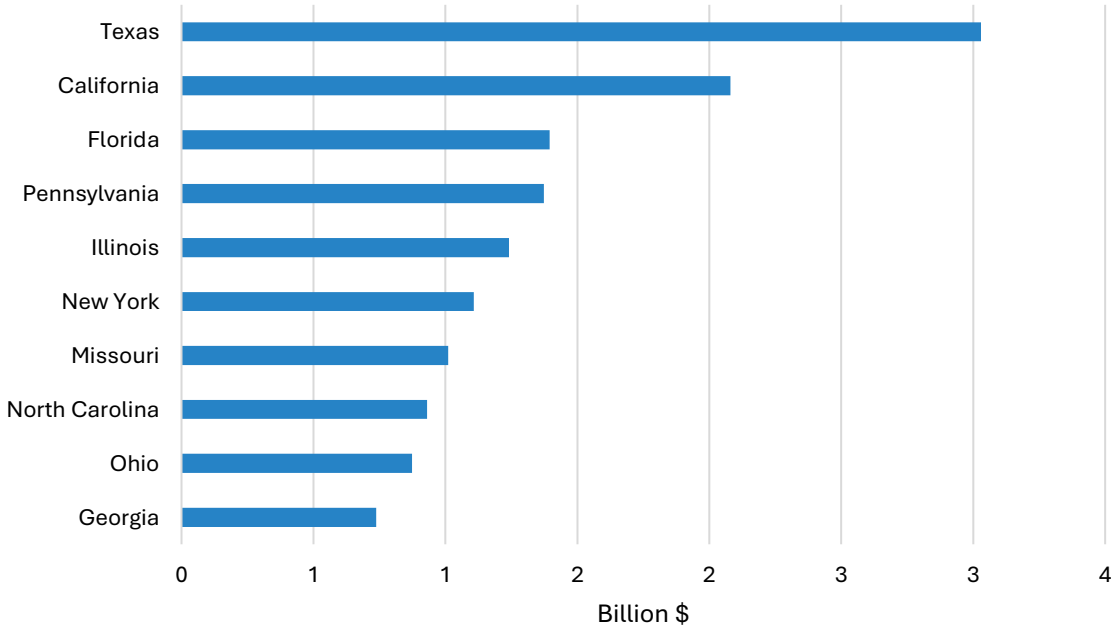
Spotlighting the National Highway Performance Program (NHPP)

The National Highway Performance formula program is the largest pool of highway funding allocated by the IIJA. Originally funded by Moving Ahead for Progress in the 21st Century Act (MAP-21) in 2012, and extended by the FAST Act in 2015, NHPP was designed to fund the maintenance of the National Highway System (NHS), including the construction of new projects. IIJA expanded upon these program goals to include activities to increase the climate resilience of the NHS, specifically with regards to damages from sea level rise, extreme heat and storms, flooding, and wildfires.

At $148 billion, the program accounts for a little under half of all the FHWA's IIJA funding. According to the Data to Decision's BIL Tracker, roughly a fifth of these funds have been distributed to about six thousand projects across the United States as of April 2023. As is shown in Figure 3, half of this funding so far has gone to ten states, with Texas, California, and Florida receiving the most funding at $3 billion, $2.1 billion, and $1.4 billion

respectively. Projects range in size, from $100,000 to over $100 million. While many of the projects will support repair and maintenance work like resurfacing or reconstructing existing roadways and bridges, plenty of the funding supports activities like widening roads, adding highway lanes, and constructing new highways.

Figure 3: Texas, California, and Florida have Received the most NHPP Funding as of March 2023



This chart illustrates the amount of funding awarded to projects by the National Highway Protection Program thus far. The ten states represented have received the most funding from this program as of March 31, 2023.

Source: Atlas Public Policy analysis using data from Data to Decision's Bipartisan Infrastructure Law (BIL) Maps Dashboard, Announced and Select Awarded BIL Funding Locations, 2023.

For example, in Houston, National Highway Performance Program is contributing funds, alongside other IIJA programs, to the North Houston Highway Improvement Project (NHHIP), a $10 billion expansion of I-45. The project would add up to six lanes to the interstate's downtown corridor and is expected to require the demolition of nearly 1,000 homes, nearly half of which are low-income units, as well as five places of worship and two schools. The potential climate and community displacement impacts linked to this project have ignited opposition to the projects from local residents. Advocacy groups like

Transportation for America have cautioned that absent program changes, highway expansion projects like NHHIP will continue to happen.

On the other side of the state, NHPP funds are also contributing to Reimagine I-10, a $750 million project that involves widening the downtown El Paso segment of the interstate. Opponents of the project have raised concerns that expanding car traffic through the region will exacerbate air quality issues in neighborhoods like San Xavier, a low-income community that has long been boxed in by highway infrastructure.

In Florida, NHPP funds are supporting the $2.6 billion expansion of Interstate 75 that would add 41 miles of highway express lanes in Tampa. Local government officials suggested these added lanes could be reserved for high occupancy vehicles and mass transit during times of high traffic, addressing some of the carbon emission concerns associated with highway expansion, but it is currently unclear if those ideas will come to fruition.

Spotlighting the Reconnecting Communities Pilot Program

While NHPP funding is contributing to repair, maintenance, and expansion projects, a portion of FHWA IIJA funds is addressing the socioeconomic impacts of past highway construction projects via the Reconnecting Communities Pilot (RCP) discretionary grant program. The program provides funding for both Planning Grants and Capital Construction Grants for projects that aim to reconnect communities that were historically divided or isolated by transportation infrastructure barriers. Planning Grants fund public engagement, the study of reconnecting solutions for a given community, and other planning expenses. Capital Construction Grant awards are designated to deploy the projects. Eligibility is open to state, municipal, tribal, and other local governments, as well as nonprofits and planning organizations with priority consideration given to entities serving disadvantaged communities. Applicants are invited to apply to both sources of grant funding.

The FHWA evaluates applications based on a range of criteria including projects' integration of equity, environmental justice, community engagement, and mobility. The RCP notice of funding opportunity places heavy emphasis on inclusion, awarding points to proposals that are informed by geospatial tools such as EPA's EJSCREEN, improve mobility for people with disabilities, engage hard-to-access community members, and integrate community restoration and anti-displacement strategies. To ensure potential applicants are best equipped to apply, FHWA provides technical assistance for prospective RCP grantees though the Reconnecting Communities Institute.

Earlier this year, FHWA awarded the first round of RCP grants: a total of $185 million for six Capital Construction Grants and 39 Planning Grants. Of these awards, 17 support projects

that promote active transportation, 12 support public transportation, and five support climate resilience. 19 project descriptions did not address public transportation, climate resilience, or active transportation. The largest award was for over $55 million while the smallest was just over $67,000.

Planning Projects

Birmingham Transportation Capital Investment Plan

The City of Birmingham was awarded an $800,000 FY22 RCP planning grant to advance data-driven transportation planning recommendations. The city's transportation planning was historically influenced by a segregationist agenda, according to FHWA, dividing residents along racial lines and creating barriers to mobility and access. Birmingham will employ a representative community advisory group to oversee the planning study and reverse the negative impact of past planning decisions.

Monterey Road Highway to Grand Boulevard Design Study

The City of San Jose, CA received a $2 million RCP planning grant to assess conceptual designs for a converting the 100-foot wide Monterey Road into a walkable boulevard including bike lanes, greenery, and dedicated transit lanes. The redesign of Monterey road is expected to reduce traffic collisions and fatalities, improving safety. This project will engage the Monterey Road community, which includes many historically disadvantaged neighborhoods with the aim of improving safety, accessibility, and transit connectivity for all.

Deployment Projects

NYS Route 33 Project

The largest FY22 RCP award was a $55.6 million Capital Construction Grant for the New York State Department of Transportation. The project will build a deck of greenspace to overlay three quarter miles of the 100-foot wide, below-grade Kensington Expressway. This will reconnect the community of Hamlin Park which was bisected through a wave of residential demolitions and the destruction of the existing Humboldt Parkway in the 1960s. When complete, the NYS Route 33 project will have reconnected several severed east-west road connections, improved crossings, and added much green space. The project is expected to better integrate the predominantly Black Buffalo East Side population with the rest of the city, improving access to community amenities and attracting new businesses.

Shoreline Drive Gateway

The Department of Transportation awarded a $30 million capital grant to the City of Long Beach, CA to build new pedestrian amenities, including a bicycle path and a

5.5-acre expansion of Cesar Chavez Park and the Marina Green over the current West Shoreline Drive. The construction of Shoreline drive involved the demolition of several city blocks, removing homes and businesses from the former Magnolia and West Beach neighborhoods. Pedestrians wishing to cross Shoreline drive must face a wide 50mph freeway with no crosswalk. The project will redirect traffic from residential streets to major roads, improving safety, residential air quality, and walkability for Long Beach residents.

Though it only represents a small fraction of IIJA infrastructure funding, the Reconnecting Communities program stands as a strong example of how the federal government can mobilize resources to transform the transportation system in a way that emphasizes environmental justice, community engagement, and sustainability.

Looking Ahead

IIJA presents a significant opportunity to repair and upgrade the resiliency of the U.S. transportation system. The distribution of IIJA funds is well underway; to date, roughly a fifth of the FHWA's funding has been awarded for projects. There is immense potential for these programs to improve the resilience and equity impacts of the U.S. transportation system. However, concerns persist regarding projects like the aforementioned highway expansions, and their potential to displace communities and increase carbon emissions. How these funds are employed and the extent to which they align with broader goals to improve the sustainability, equity, and climate resilience of the U.S. transportation system will be determined as funds continue to be awarded through fiscal year 2026.

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