

Issue Brief: Flexible Federal Funding Opportunities for State and Local Clean Transportation Investments

February 23, 2023

Executive Summary

When it comes to deciding how to spend funds from federal transportation programs, state policymakers — including department of transportation (DOT) officials and state lawmakers — have a remarkable amount of flexibility. A



historic influx of federal funding for transportation programs, primarily from the 2021 Bipartisan Infrastructure Law (BIL),¹ creates an opportunity for states to leverage new investments in low-carbon projects to help meet national, state, and local climate goals, as detailed in analysis by Georgetown Climate Center.² Funding from the BIL could play an important role in the U.S. response to climate change, especially if transportation investment decision makers prioritize low-carbon options. However, investment portfolios with a substantial amount of highway expansion would result in more carbon pollution over the long term than currently projected. Because states will be the primary recipients of the vast majority of transportation dollars from the BIL, state investment decisions are a major factor influencing the overall emissions outcomes of this spending.

Many states have adopted ambitious climate targets, committing to cut carbon pollution across all sectors of their economies. To help achieve these cuts in the transportation sector (the largest contributor to greenhouse gas pollution in the U.S.), state decision makers can — and already do,

to varying degrees — avail themselves of three strategic opportunities as they make choices about how to invest their share of BIL funds:

1. Take advantage of low-carbon project eligibility under Federal-Aid Highway programs,
2. Use authority to transfer funding between Federal-Aid Highway programs, and
3. “Flex” funding for transit projects from Federal-Aid Highway programs to the Federal Transit Administration.

To some extent, all states already use flexibility provisions to invest federal transportation funding according to their own policy goals, while also achieving national priorities inherent to the federal programs. However, additional flexibility to use this authority is still available for states looking to maximize the climate benefits of federal transportation dollars by increasing investments in transit, active transportation, vehicle electrification, and other low-carbon strategies.

Under the BIL, this flexibility is combined with new and expanded eligibility for a variety of low-carbon transportation project types. That means transportation agencies have a greater opportunity than ever before to decide how much federal funding for transportation will be directed toward low-carbon projects that also help to reduce pollution, like switching diesel buses to electric, and that make communities safer, like protected bike and pedestrian infrastructure. Of course, this flexibility cuts both ways: without clear policy direction from state leaders, transportation dollars may be just as easily spent on less climate-friendly projects.

Background

History of flexibility in surface transportation funding

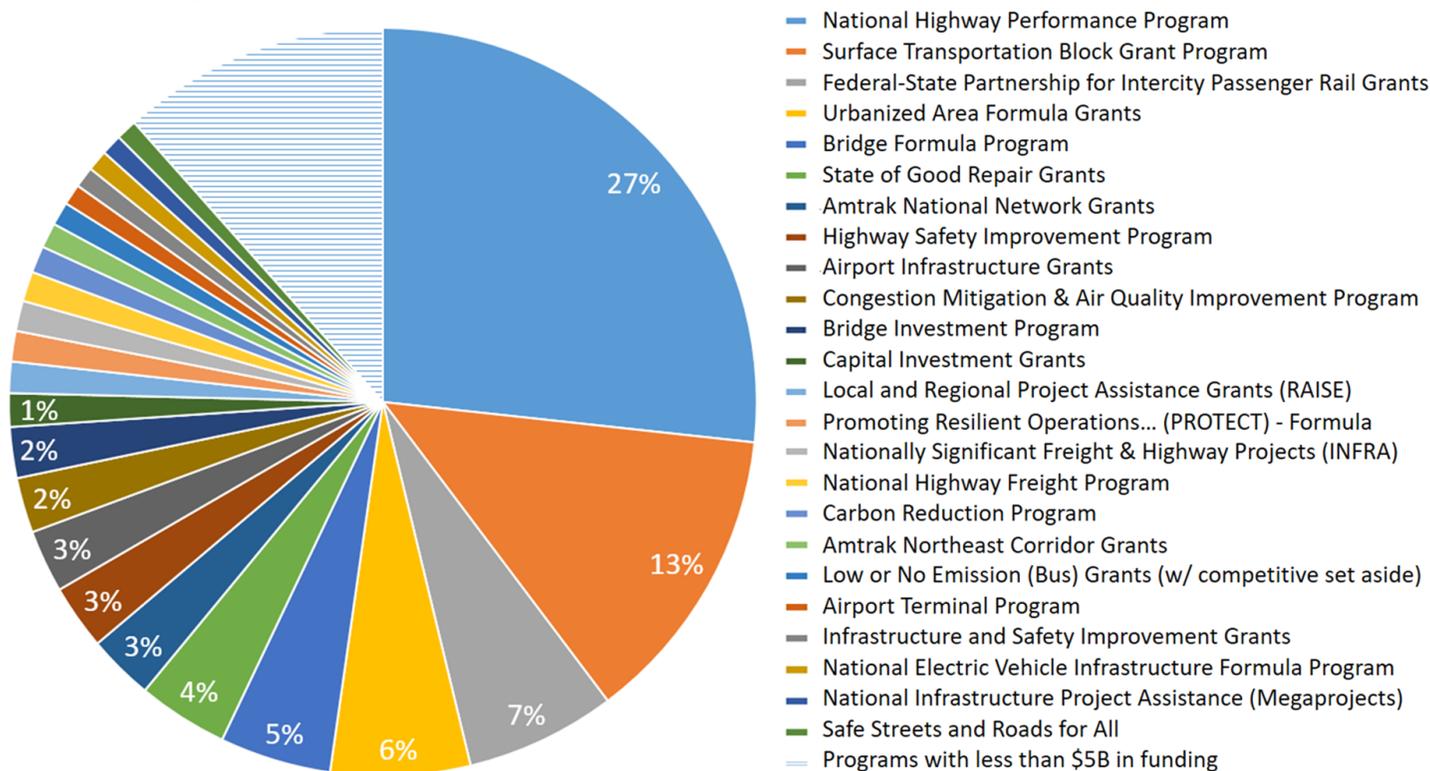
Although federal funding for highways was originally tied to specific national priorities — the construction and maintenance of the Interstate Highway System, for example — more recent reauthorizations have taken steps to balance national goals with the individual needs of states and local governments.³ Since the late 1970s, provisions have been added to federal funding laws that allow greater flexibility for states, including expanded project eligibility for general-purpose block grant programs and additional state authority to transfer funding between programs.⁴ With construction of the Interstate Highway System largely completed, Congress passed the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), a landmark transportation reauthorization bill intended to usher in a new era of investments in multimodal transportation.⁵ ISTEA gave state and local governments greater flexibility to decide which highway or non-highway transportation projects best met their needs while also creating new types of programs, including what became the Surface Transportation Block Grant Program (described below).

Flexibility is valuable to state and local governments for a variety of reasons, including that it enables them to advance their own policy goals, while also achieving national priorities inherent to the federal programs.⁶ For example, federal law requires states to set and meet performance targets for their transportation systems with respect to safety, pavement, and bridge condition.⁷ To the extent that these targets are not met, states may be restricted in terms of which types of investments they can make with their apportioned federal funds.⁸ As a result, for most states, meeting performance targets — and other federal policy priorities — is an important consideration influencing their desire and need to take advantage of flexibilities built into federal programs.⁹

Bipartisan Infrastructure Law

The BIL includes a historic amount of federal surface transportation funding over five years. In Federal Fiscal Year (FFY) 2022 alone, funding for the Federal-Aid Highway Program — an umbrella term for the highway programs administered by the FHWA — increased by roughly 30 percent (\$13.8 billion) over FFY 2021, for a total of \$59.1 billion.¹⁰ Funding for mass transit programs administered by the Federal Transit Administration saw an increase of more than 33 percent (\$3.4 billion), totaling \$13.3 billion.¹¹ Like prior surface transportation packages, the bulk of this funding is distributed via “formula funding” — so called because it is allocated based on statutorily defined formulas — to states and local metropolitan planning organizations (MPOs), who play central roles in transportation planning and investment decision making.

BIL Grant programs for U.S. DOT (5-year total: \$554 billion)



Source: U.S. Department of Transportation, *Bipartisan Infrastructure Law Grant Programs*, <https://www.transportation.gov/bipartisan-infrastructure-law/bipartisan-infrastructure-law-grant-programs>.

Although Congress dedicated some of the BIL funding specifically for low-carbon transportation strategies like public transit and vehicle electrification, the largest programs in the new law allocate five years of formula funding to the states through broad highway programs, including \$148 billion for the National Highway Performance Program (NHPP) and \$72 billion for the Surface Transportation Block Grant Program (STBG).¹² The NHPP is intended to provide support for the condition, performance, and resiliency of the National Highway System and primarily funds construction, reconstruction, resurfacing, rehabilitation, and preservation of roads and bridges. However, the scope of eligible projects under the NHPP is broad enough to also include transit, bicycle, and pedestrian projects on or adjacent to the National Highway System.¹³ Meanwhile, the STBG is intended to provide “flexible funding to address State and local transportation needs”¹⁴ and already allows states and local governments to invest in a wide range of projects, including construction of transit capital projects,¹⁵ installation of electric vehicle charging infrastructure,¹⁶ active transportation and shared micromobility projects,¹⁷ travel demand management strategies,¹⁸ transportation planning and research,¹⁹ and more.

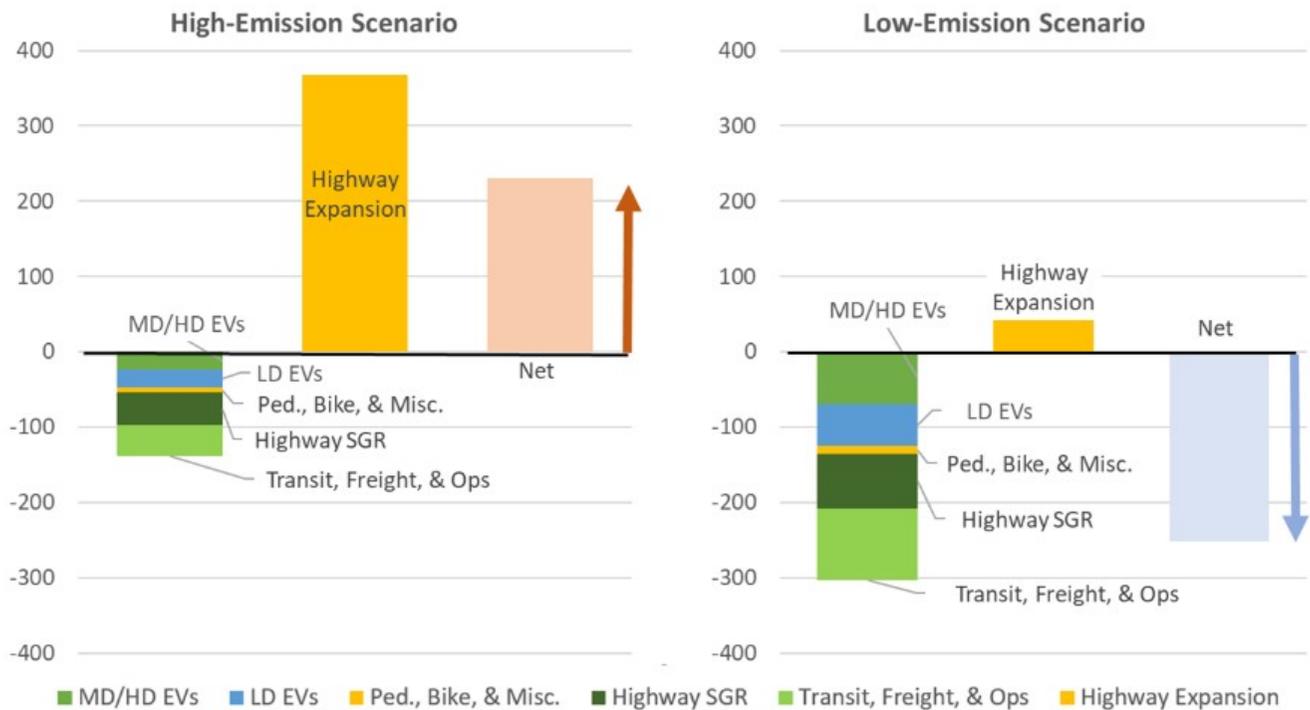
When it comes to deciding how to spend funds from these broad highway programs, state decision makers — generally DOT officials, state legislators, or both — have a remarkable amount of flexibility.

Emissions impacts of state investment decisions

As prior GCC analysis shows, the BIL has the potential to be an important part of the U.S. response to climate change. Alternatively, depending on the funding priorities at a national scale, it could instead lead to an increase in greenhouse gas (GHG) pollution above the projected baseline. The key determinant will be the decisions made by federal, state, and local governments about how to exercise the flexibility available to them as they spend the money allocated by the BIL.

GCC’s analysis found that investing a substantial portion of federal highway dollars into roadway capacity expansion projects — i.e., expanding or adding new travel lanes — could more than cancel out the emissions benefits of the BIL’s dedicated funding for low-carbon strategies over time. Although capacity expansion projects may provide short-term congestion relief, the vehicle miles traveled on those roads tend to increase over time, driving up pollution and worsening, rather than alleviating, traffic congestion.²⁰ On the other hand, if states prioritize repairs to existing roads,²¹ limit their spending on capacity expansion projects,²² and direct more dollars toward emissions-reducing projects,²³ BIL implementation could substantially cut transportation emissions.

Investments in highway expansion vs. other strategies is main driver of emissions outcomes



Note: Charts show cumulative MMT of CO₂ emissions, relative to the GHG baseline, 2022 to 2040.

Source: Georgetown Climate Center, *Issue Brief: Estimating the Greenhouse Gas Impact of Federal Infrastructure Investments in the IIJA* (Dec. 16, 2021), <https://www.georgetownclimate.org/articles/federal-infrastructure-investment-analysis.html>.

Statutory Authority for Flexible Transportation Funding

As noted above, over time, Congress has expanded the range of transportation project types eligible for funding under Federal-Aid Highway programs. This trend continues under the BIL, which introduces new eligibility and sources of dedicated funding for low-carbon strategies. For example:

- The BIL expands the scope of project types eligible for funding under the **STBG program**, adding eligibility for installation of electric vehicle charging infrastructure and vehicle-to-grid technology, as well as construction of bus rapid transit corridors and dedicated bus lanes.²⁴
- The BIL also establishes two new programs with dedicated formula funding for state DOTs to invest in low-carbon projects: the **Carbon Reduction Program (CRP)**²⁵ and the **National Electric Vehicle Infrastructure Formula Program (NEVI Formula)**.²⁶

Because they are dedicated to particular purposes, programs like the CRP and NEVI Formula establish a baseline amount of funding for low-carbon investments. Additionally, states can take steps to increase the amount of Federal-Aid Highway dollars from other programs that are invested in projects that reduce GHG emissions. In particular, federal law provides states with authority to

transfer — or “flex” — formula funding apportioned under certain Federal-Aid Highway programs.²⁷ This flexibility is especially valuable for states looking to invest in low-carbon strategies because it applies to both the largest Federal-Aid Highway programs — the NHPP and STBG — as well as five smaller programs (see table).²⁸

BIL Formula-Funded Programs with Flexible Funding	Five-Year Funding Amount
National Highway Performance Program	\$148,000,000,000
Surface Transportation Block Grant Program	\$72,000,000,000
Highway Safety Improvement Program	\$15,557,499,996
Congestion Mitigation & Air Quality Improvement Program	\$13,200,000,000
Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT) - Formula	\$7,299,999,998
National Highway Freight Program	\$7,150,000,000
Carbon Reduction Program	\$6,419,999,998

Source: U.S. Department of Transportation, Bipartisan Infrastructure Law Grant Programs, <https://www.transportation.gov/bipartisan-infrastructure-law/bipartisan-infrastructure-law-grant-programs>.

State decision makers who wish to make more funding available for low-carbon strategies may make use of two primary methods to flex funding from these highway programs: (1) transfers between highway programs and (2) transfers from highway programs to the Federal Transit Administration (FTA).

1. Transfers between highway programs

In general, under section 126 of the highways title of the U.S. Code, a state may transfer up to 50 percent per fiscal year of any Federal-Aid Highway Program apportionment under section 104(b) to any other program funded under that same section.²⁹ In other words, states may transfer up to half of the individual apportionments between any of the following programs:

- National Highway Performance Program
- Surface Transportation Block Grant Program
- Highway Safety Improvement Program
- Congestion Mitigation and Air Quality Improvement Program
- PROTECT Formula Program
- National Highway Freight Program
- Carbon Reduction Program³⁰

Transferred funds may be used for the purposes of the program to which they are flexed. Therefore, there is a tendency to transfer funding from the largest program (NHPP) to more flexible programs, such as STBG, where they can be spent on a broader range of eligible project types.³¹

2. Transfers from highway programs to FTA

In addition to transfers between highway programs, a state may request that FHWA transfer any state-apportioned Federal-Aid Highway funds for which transit projects or transportation planning are eligible uses, along with relevant administrative responsibilities, to FTA.³² Funds transferred this way may then be used for eligible projects as if flowing from FTA to the state, transit operators, and/or local governments under chapter 53 of Title 49, although some Title 23 requirements, including a required non-federal cost share, continue to apply after the transfer.³³ Flexing highway dollars to FTA is not subject to the 50 percent limit that applies to highway-to-highway transfers.

Unlike highway-to-highway transfers, flexing funds to FTA does not change the types of eligible projects; funds transferred from FHWA to FTA may only be used for purposes eligible under both the original program and the program to which they are transferred.³⁴ Although this means that state DOTs and MPOs have the ability to directly fund transit projects under these programs without transferring funds to FTA, this flexibility may allow states to direct more dollars and project implementation responsibilities to recipients with appropriate capacity, expertise, and project pipelines.

The following highway programs have specific eligibilities for transit or transportation planning, which means that project funding may be flexed to FTA:

- National Highway Performance Program
- Surface Transportation Block Grant Program
- Transportation Alternatives
- Congestion Mitigation and Air Quality Grant Program
- Carbon Reduction Program³⁵

Additional funding can be flexed to these highway programs from other highway programs without transit eligibility (see “Transfers between highway programs” above).

Opportunities for states to align transportation spending with climate priorities

There are many opportunities for states to play more of a leadership role in reducing carbon emissions from the transportation sector. To assist states, the National Cooperative Highway Research Program (NCHRP) — administered by the Transportation Research Board (TRB) of the National Academies of Sciences, Engineering, and Medicine — hosts an online guide for state DOTs that presents tools, methods, and data sources that can be used to assess and plan for investments in low-carbon projects.³⁶

Additionally, for the purposes of this Issue Brief, the passage of BIL provides states with new and expanded sources of funding for transportation projects that reduce GHG emissions, plus the option to flex highway dollars to fund transit and other low-carbon strategies. These are important tools that states can use to tailor investments of highway dollars to support progress toward achieving their own climate goals and priorities.

1. Take advantage of low-carbon project eligibility under Federal-Aid Highway programs

States can take advantage of the inherent flexibility within each of the formula-funded Federal-Aid Highway programs to direct investments toward low-carbon projects that support their climate action needs. As noted above, even though the NHPP is a “highway” program, projects eligible for funding through NHPP include transit, bicycle, and pedestrian investments, as long as they are on or adjacent to the National Highway System.³⁷ In addition, the scope of project types explicitly eligible for funding through the STBG was expanded under BIL. Additionally, there are now several new programs dedicated to low-carbon transportation funding, like the CRP and NEVI Formula, both created by BIL. States can and should account for this flexibility when planning for transportation investments.

2. Use authority to transfer funding between Federal-Aid Highway programs

Transferring funding between Federal-Aid Highway programs can allow states to direct additional funding towards programs with the greatest opportunity or demand for low-carbon transportation investments. States routinely use this authority to better match federal funding to their individual needs, and the same opportunity exists to align investments with achieving climate goals.

In a recent NCHRP report, transportation researchers found that every state and the District of Columbia took advantage of the Federal-Aid Highway Program transferability provisions to some degree between FFY 2013 and FFY 2020.³⁸ However, there is room to do more if states decide to use this flexibility to increase the share of funding available for a broad range of climate-friendly projects. On average, over the period that researchers examined, states transferred 10 percent of

NHPP funds to other highway programs — one-fifth of the maximum amount that could have been legally flexed.³⁹ As the largest Federal-Aid Highway program with some of the most restrictive eligibility for low-carbon projects, the NHPP is one major source of funding that states may consider flexing to other programs with broader low-carbon eligibility, including the STBG and CRP.

It is worth noting that this flexibility works both ways; states may just as easily choose to flex dollars to enable investments in less climate-friendly projects. States should be conscious of the opportunity costs when transferring funding between programs. Flexing dollars out of the CRP to fund carbon emissions-increasing projects, for example, would be counterproductive for states seeking to align transportation spending with climate goals.

3. Consider flexing Federal-Aid Highway dollars to FTA-administered transit projects

States planning to use funding flexibilities to invest Federal-Aid Highway Program dollars into public transit can consider transferring those funds to FTA. Although state DOTs typically have the authority to oversee these transit projects themselves, flexing funding may help to simplify and expedite project delivery and encourage greater integration within local mobility networks.⁴⁰ In particular, states can consider funding certain transit strategies, including bus electrification, that are especially cost-effective methods for reducing transportation GHG emissions.

Over the period covered by the NCHRP report, less than four percent of all available Federal-Aid Highway funding was transferred to transit projects under the FTA.⁴¹ Only eight states — New Jersey, California, Maryland, Oregon, Vermont, New York, Arizona, Washington, and Nevada — flexed more than four percent of their total highway funding to FTA.⁴²

Conclusion

With the enactment of the BIL, states have access to more federal transportation funding than ever before, and significant flexibility to deploy that new transportation spending in ways that are aligned with state and federal climate policy goals.⁴³ Many states have also adopted, either by statute or executive action, ambitious targets for greenhouse gas emission reductions that will require significant cuts to carbon pollution across all sectors.⁴⁴ State Departments of Transportation have an opportunity to play leadership roles in helping to achieve these targets by investing in projects that reduce carbon emissions from transportation, the largest source of GHG pollution for most states. By taking broad advantage of the flexibility of federal funding programs, including by flexing funding into programs with broader eligibility for low-carbon strategies, such as CRP and STBG, or passing project dollars along to transit agencies through FTA, states have an opportunity to leverage federal transportation dollars to accelerate progress toward their climate goals.

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Endnotes:

1. *Infrastructure Investment and Jobs Act*, Pub. L. No. 117-58, 135 Stat. 429 (2021), **View Source.** |
2. *Georgetown Climate Center, Issue Brief: Estimating the Greenhouse Gas Impact of Federal Infrastructure Investments in the IIJA* (Dec. 16, 2021), **View Source.** |
3. *National Academies of Sciences, Engineering, and Medicine, Federal Funding Flexibility: Use of Federal-Aid Highway Fund Transfers by State DOTs*, 9 (2022), **View Source.** |
4. *See National Academies of Sciences, Engineering, and Medicine, Federal Funding Flexibility: Use of Federal-Aid Highway Fund Transfers by State DOTs*, 9–18 (2022), **View Source.** |
5. *Ellen Schweppe, "Legacy of A Landmark: ISTEA After 10 Years," Public Roads Magazine*, Vol. 65 No. 3, Nov.–Dec. 2001, **View Source.** |
6. *National Academies of Sciences, Engineering, and Medicine, Federal Funding Flexibility: Use of Federal-Aid Highway Fund Transfers by State DOTs* 27 (2022), **View Source.** |
7. *See Federal Highway Administration, What is TPM?*, **View Source.** |
8. *See, e.g., 23 C.F.R. § 490.317 (2023) (establishing penalties for non-compliance with minimum standards for pavement condition on the National Highway System, requiring non-compliant states to obligate additional funding for the purpose of pavement condition management).*
9. *National Academies of Sciences, Engineering, and Medicine, Federal Funding Flexibility: Use of Federal-Aid Highway Fund Transfers by State DOTs* 27 (2022), **View Source.** |
10. *Jeff Davis, "Biden Signs Bipartisan Infrastructure Bill Into Law," Eno Center for Transportation* (Nov. 19, 2021), **View Source.** |
11. *Jeff Davis, "Biden Signs Bipartisan Infrastructure Bill Into Law," Eno Center for Transportation* (Nov. 19, 2021), **View Source.** |
12. *U.S. Department of Transportation, Bipartisan Infrastructure Law Grant Programs*, **View Source.** |
13. *See 23 U.S.C. § 119(b),(d); see also 23 U.S.C. § 217(b).*
14. *23 U.S.C. § 133(a).*
15. *23 U.S.C. § 133(b)(1)(C).*
16. *23 U.S.C. § 133(b)(15).*
17. *23 U.S.C. § 133(b)(7).*
18. *23 U.S.C. § 133(b)(13).*
19. *23 U.S.C. § 133(b)(11).*

20. See, e.g., Susan Handy, "Increasing Highway Capacity Unlikely to Relieve Traffic Congestion," UC Davis, National Center for Sustainable Transportation (2015), **View Source.** |
21. See, e.g., Governor Gretchen Whitmer, *Rebuilding Michigan's Roads and Bridges* (Oct. 24, 2022), **View Source.** |
22. See, e.g., Daniel C. Vock, "Two States Cancel Highway Expansions After Years of Planning," *Route Fifty* (June 3, 2022), **View Source.** |
23. See, e.g., Colorado Department of Transportation, *Fact Sheet: Colorado's New Greenhouse Gas Standard for Transportation Planning*, **View Source.** |
24. Federal Highway Administration, *Bipartisan Infrastructure Law Fact Sheet: Surface Transportation Block Grant Program (STBG)*, **View Source.** |
25. Federal Highway Administration, *Bipartisan Infrastructure Law Fact Sheet: Carbon Reduction Program (CRP)*, **View Source.** |
26. Federal Highway Administration, *Bipartisan Infrastructure Law Fact Sheet: National Electric Vehicle Infrastructure Program*, **View Source.** |
27. See 23 U.S.C. §§ 104, 126.
28. The NHPP and STBG combined account for more than 70 percent of the highway formula funding in IIJA. Jeff Davis, "Biden Signs Bipartisan Infrastructure Bill Into Law," *Eno Center for Transportation* (Nov. 19, 2021), **View Source.** |
29. 23 U.S.C. § 126(a).
30. 23 U.S.C. § 104(b). This flexibility is generally limited to statewide funding and excludes certain funds required to be set aside and obligated within specific areas of the state (e.g., urban and rural set-asides under STBG). 23 U.S.C. § 126(b).
31. National Academies of Sciences, Engineering, and Medicine, *Federal Funding Flexibility: Use of Federal-Aid Highway Fund Transfers by State DOTs*, 19 (2022), **View Source.** |
32. 23 U.S.C. § 104(f)(1). Transfers in the opposite direction are also allowed for FTA funds available for highway projects or transportation planning under chapter 53 of Title 49. 23 U.S.C. 104(f)(2).
33. Federal Highway Administration, *Order 4551.1: Fund Transfers to Other Agencies and Among Title 23 Programs* (Aug. 12, 2013), **View Source.** |
34. Federal Transit Administration, *Flexible Funding for Transit and Highway Improvements*, **View Source.** |
35. U.S. Department of Transportation, *Transportation Planning Capacity Building Program, Flexible Funding for Transit Access*, **View Source.** |
36. *Reducing Greenhouse Gas Emissions: A Guide for State DOTs* (2022), **View Source.** |
37. See 23 U.S.C. § 119(b),(d); see also 23 U.S.C. § 217(b).
38. National Academies of Sciences, Engineering, and Medicine, *Federal Funding Flexibility: Use of Federal-Aid Highway Fund Transfers by State DOTs*, 1 (2022), **View Source.** |

39. *National Academies of Sciences, Engineering, and Medicine, Federal Funding Flexibility: Use of Federal-Aid Highway Fund Transfers by State DOTs, 20, Table 4-1 (2022), **View Source.** |*
40. *U.S. Department of Transportation, Transportation Planning Capacity Building Program, Flexible Funding for Transit Access, **View Source.** |*
41. *National Academies of Sciences, Engineering, and Medicine, Federal Funding Flexibility: Use of Federal-Aid Highway Fund Transfers by State DOTs, 34, Table 5-1 (2022), **View Source.** |*
42. *"Want to Use Highway Dollars for Transit? These Places Already Do," TransitCenter (Nov. 29, 2022), **View Source.** |*
43. *See Fact Sheet: President Biden Sets 2030 Greenhouse Gas Pollution Reduction Target Aimed at Creating Good-Paying Union Jobs and Securing U.S. Leadership on Clean Energy Technologies, **View Source** (The Biden Administration has committed to a new target for the United States to achieve a 50-52 percent reduction from 2005 levels in economy-wide net greenhouse gas pollution in 2030). Examples of states with ambitious greenhouse gas reduction targets include: New York (goal to reduce GHG emissions 40 percent below 1990 levels by 2030 and at least 85 percent below 1990 levels by 2050.S. 6599), New Jersey (reduce emissions 50 percent below 2006 levels by 2030, EO 274) and Rhode Island (reduce GHG emissions 10 percent by 2020, 45 percent by 2035, and 80 percent by 2040, all compared to 1990 levels, R.I. Gen. Laws § 42-6.2-2). |*
44. *Center for Climate and Energy Solutions, U.S. State Greenhouse Gas Emissions Targets, **View Source.** |*