

Toolkit for Advanced Transportation Policies

Improving Environmental, Economic, and Social Outcomes for States and Local Governments Through Transportation



Quick Take

The **Toolkit for Advanced Transportation Policies** explores the broad range of tools available to policymakers, especially at the state and city level, who are looking to improve their transportation sector. By highlighting options, key considerations, and examples of successfully implemented policies, this paper provides an introduction of policy options so that policymakers and stakeholders can consider the potential process to evaluate which policies or programs may be appropriate for a specific jurisdiction.

This paper first provides a detailed overview of the various overlapping goals for advanced transportation policies and then includes a summary of state and local governments' legal authority to undertake these next generation policies. The bulk of the paper consists of the "Transportation Toolkit" of more than 30 policies and programs that can serve as a reference resource for policymakers. While certainly not a comprehensive list of possible transportation policies, it focuses on those with widespread and increasing adoption, as well as some promising emerging strategies, that have the potential to capture health and environmental benefits. The Toolkit is divided into three general categories: emissions focused programs, electrification programs, and broader transportation programs.

Emissions-Focused Programs: A primary objective of many policymakers in improving the transportation sector is to reduce greenhouse gas or local pollution emissions. While greenhouse gas emissions contribute to climate change, local pollutants are the primary cause of smog, soot, and many air quality pollution health hazards. There are a range of policies that can directly help reduce emissions and that can often result in numerous co-benefits. Decisionmakers can implement different policies for state or local government fleets that minimize emissions. States can also adopt California's emission standards under Section 177 of the Clean Air Act. Additionally, policymakers can design market-based policies imposing a price on greenhouse gases and create an incentive to adopt technologies or practices that lower those emissions.

Electrification Programs: There are many ways to improve the environmental performance of vehicles by switching from traditional gasoline or diesel-powered engines to alternate

Goals of Advanced Transportation Policies

Transportation policies can achieve numerous interlocking environmental, economic, and social goals. These goals might include:

Local Emissions Reductions: Transportation policies can greatly reduce local criteria air pollutant levels that exacerbate asthma, heart disease, and other health risks, risks that are often disproportionately born by low-income communities and communities of color.

Greenhouse Gas Emissions Reductions: In 2016, the transportation sector overtook the electric sector to become the largest source of domestic carbon dioxide emissions. To reach long-term greenhouse gas goals, reducing emissions from the transportation sector is critical.

Economic Development, Advanced City Design, and Congestion Reduction: Because the transportation sector is a significant contributor to, and foundation for, economic activity, many broader economic and community initiatives have a large transportation component. Many states and local governments have policies in place to improve quality of life in cities by improving environmental conditions and developing community spaces that are clean, efficient, economically prosperous, productive, and conducive to high quality resident life.

Advanced Vehicle Technology Transformation: Transportation policies can also help to advance technological development and transformation that will be necessary for building a modern, clean, and efficient transportation sector. Already, the market for new transportation technologies is growing, as evidenced by the significant advancements in efficient new buses, EVs, and many other technologies explored in this paper. This technological transformation can underlie economic development and transformation as well.

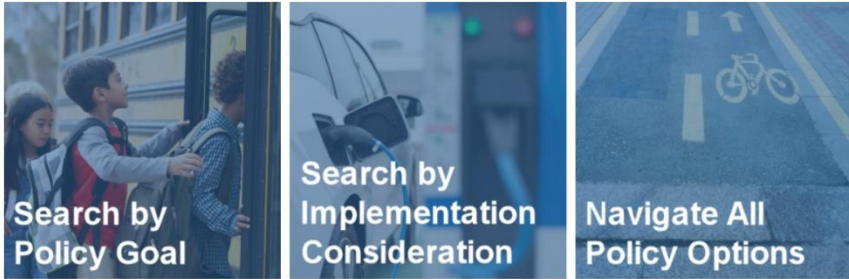
Grid Stability and Renewable Integration: Reforming the transportation sector also has the potential to help support and even improve the electric grid. Electrification, if done strategically and in coordination with the electric system, has the potential to strengthen the grid and help to incorporate key clean resources such as renewable wind and solar generation.

forms of energy. Electricity as a transportation fuel rises to the top in most analyses as one of the most effective ways to power clean vehicles. This is for many reasons: electric vehicles (EVs) use energy more efficiently than internal combustion vehicles, the infrastructure to deliver the fuel—electricity lines—is mostly already in place, there are no tailpipe emissions, which greatly improves local air quality, and, importantly, as the electricity grid becomes cleaner and more renewable-dependent, so too will electric-powered vehicles. With an increasingly clean electric grid, these savings will only increase. In addition, technological advances and market trends point toward a rapid increase in EVs. For these reasons, this section focuses on policies that support the electrification of light- and heavy-duty vehicles (though it is worth noting that some of these mechanisms, such as the financial incentives, often apply to other types of alternative fuel vehicles as well). Many of these policies can work together and work with other policies mentioned throughout this paper, such as zoning requirements and education programs, to increase policy effectiveness. A combination of policies and supporting incentives to purchase and own EVs will help accelerate early market development and adoption.

Broader Programmatic Measures: Because transportation is inextricably intertwined with the economic activity of states and local governments, there are many broader programmatic measures that may not be solely transportation focused but can have significant impacts on the sector. For instance, many policies related to urban planning, such as development standards or economic development, have significant transportation components. In addition, marketing and educational efforts, while critical to the success of many initiatives discussed throughout this paper, are often not limited to one initiative but can span multiple programs and goals.

The report contains tools to help a state or city explore potential options. Each policy is rated based on how much it could help a policymaker achieve each of the five policy goals explored in more depth in this paper by highlighting how much, on a relative basis, a policy could potentially contribute to each goal. The report also synthesizes key administrative requirements from a city and state perspective, such as overall regulatory administrative requirements, regulatory funding considerations, timeframe, and issues related to legal authority such as whether a regulator can use existing authority to develop a program and where a policy may require state legislative action. Additionally, the report is accompanied by an online **Interactive Policy Explorer** that allows a user to dive into specific policies, sorted by implementation considerations, policy goals, and policy type.

Online Interactive Toolkit: Policy Explorer



Search by Policy Goal Search by Implementation Consideration Navigate All Policy Options

MJB&A's Policy Explorer contains the report's details on policies, key considerations, and case studies in an easy to navigate format. It can be found at <https://www.mjbradley.com/content/transportation-policy-toolkit>

For MJB&A's full report, "Toolkit for Advanced Transportation Policies: Improving Environmental, Economic, and Social Outcomes for States and Local Governments Through Transportation," go to https://www.mjbradley.com/sites/default/files/mjba_transportation_toolkit.pdf.

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