Appendix 1: Methodology

We began with a set of questions that together comprised our initial schema. These were partially sourced from academics, federal officials, and practitioners across several states and cities. We then solicited feedback on the initial schema from key interviewees, which informed the final schema that we executed through a detailed inventory of stated department of transportation (DOT) and state practices.

The final schema organizes questions into four categories: mitigation, resilience, greenhouse gas (GHG) emissions measurement, and public input. Taken together, these questions allowed us to categorize the transportation-related climate planning efforts states have undertaken. The final inventory is the culmination of a months-long data collection effort and can be found in Appendix 2.

We relied on publicly available materials to inventory states' climate planning efforts. Information was mainly sourced from state government websites, primarily relying on documents available on each state's DOT site. We also referenced lists maintained by the U.S. Department of Transportation (USDOT) and Environmental Protection Agency (EPA) for Carbon Reduction Strategies, Resilience Improvement Plans, Official State Greenhouse Gas Inventories, and Priority Climate Action Plans.

We collected data from late December 2023 through June 2024. Once we completed our inventory, we interviewed individuals in nearly every state to enrich and validate our data. Interviewees are anonymous. In some cases, data were modified based on answers during these interviews. Data were then updated in December 2024 to ensure plans and inventories published in the latter half of 2024 were included.

Note on data sources

Our analysis solely relies on publicly available materials. This is a methodological approach, and it reflects the critical importance of transparency—or in many cases, the lack of it. If a state DOT does not publish its plan or procedure, they are, by definition, not accountable to that plan or procedure.

There is an immediate need for transparency by state DOTs and state-level transportation decisionmakers. Given the importance of transparency, when state DOTs do make a process, plan, or otherwise public, we assume that any statements are made in good faith. That is, we inventory practices as they are publicly reported. In some cases, an interviewee offered information that contradicted a statement by a state DOT. In those instances, we deferred to the interviewee.

Given the nature of our research, and despite our good-faith approach to state DOT claims, it is possible that there are policies, plans, procedures, or resources that our research could not uncover. We invite state DOTs and stakeholders to share these.

Finding #1: Every state published a transportation mitigation plan in the past three years—a major improvement since the IIJA and IRA's passage

a. *Beyond plans required by the CPRG program or CRP, does the state have a climate mitigation plan?*

If the state DOT, executive, or legislature published a strategy or report about how they plan to reduce transportation emissions, we recorded "yes." If any state agency, executive, or legislature published a strategy or report about cross-sector climate mitigation, and that plan included transportation-specific analysis or recommendations, we recorded "yes."

If any state agency, executive, or legislature published a strategy or report about cross-sector climate mitigation without transportation-specific recommendations or analysis, we recorded "partial." Otherwise, we recorded "no."

Finally, we supplemented these plans with the state's federally required Carbon Reduction Strategy and Priority Climate Action Plan, where applicable. We referred to USDOT and EPA for definitive lists of these resources.

b. *If the state has a climate mitigation plan, does it prioritize electric vehicles, vehicle miles traveled (VMT) reduction, or both?*

We examined the state's climate mitigation plans—excluding Carbon Reduction Strategies and Priority Climate Action Plans—to assess which interventions were recommended to reduce transportation emissions. If the state had no such plan or only had a plan that we recorded as "partial," we recorded "not applicable."

If the plan mentioned electric vehicle adoption, we recorded "electric vehicles." If the plan mentioned VMT reduction explicitly (or VMT-reducing interventions such as active transportation, public transportation, or traffic demand management), we recorded "VMT reduction." If the plan mentioned both interventions, we recorded "both." If the plan mentioned neither intervention, we recorded "no."

c. *Beyond plans required by NEVI, does the state have an electrification plan?*

If any state agency, executive, or legislature published a strategy or report about the adoption of or infrastructure for electric or zero-emission vehicles, we recorded "yes." If any state agency, executive, or legislature published a strategy or report about cross-sector electrification or clean energy, and that plan included transportation-specific recommendations or analysis, we recorded "yes."

If any state agency, executive, or legislature published a strategy or report about cross-sector electrification or clean energy without transportation-specific recommendations or analysis, we recorded "partial." Otherwise, we recorded "no."

Finally, we recorded a link to the state's NEVI plan, referring to the Federal Highway Administration for a definitive list. We then cross-referenced that list with the state DOT website to ensure we captured the most recent update to the state's NEVI plan.

Finding #2: Nearly two-thirds of states are formally planning for climate resilience in transportation, but that still leaves 19 states with no resilience plans of any kind

a. *Does the state have a climate resilience or adaptation strategy?*

If the state DOT, executive, or legislature published a strategy or report about climate adaptation or resilience, we recorded "yes." If the state DOT performed and published a vulnerability analysis of their transportation network, we recorded "yes." If any state agency, executive, or legislature published a strategy or report about a cross-sector approach to climate adaptation or resilience, and that plan had transportation-specific analysis or recommendations, we recorded "yes."

We referred to the Federal Highway Administration for a definitive list of Resilience Improvement Plans, and cross-referenced by searching the state DOT's website. Because the state is not required to prepare a Resilience Improvement Plan, if it had published one, we recorded "yes."

If any state agency, executive, or legislature published a strategy or report about a cross-sector approach to climate adaptation or resilience, but the plan did not have transportation-specific recommendations or analysis, we recorded "partial." Otherwise, we recorded "no."

b. *If the state has a climate resilience or adaptation strategy, does it primarily affect planning priorities, project selection, or both?*

We examined the state's climate adaptation or resilience plans, including Resilience Improvement Plans, to assess their asserted effect on the state's transportation system. If the state had no such plan or had a plan we recorded as "partial," we recorded "not applicable."

If the plan mentioned incorporating resilience or adaptation principles into other state plans, recommended conducting some vulnerability analysis or related planning, or otherwise stated that it would affect higher-level planning concerns of the state DOT or other relevant agency or office, we recorded "planning priorities." If the plan mentioned using resilience or adaptation criteria to select projects, incorporated resilient or adaptive measures in project selection and development, included a list of climate-vulnerable assets as targets for improvements or repair, or otherwise stated that the plan itself would affect which locations, assets, and designs were selected for future transportation projects, we recorded "project selection." If the plan stated it would affect both planning priorities and project selection, we recorded "both." Otherwise, we recorded "no."

Finding #3: In the past, states that conducted both resilience and mitigation planning were far more likely to also measure GHG emissions

a. *Does the state have its own GHG inventory?*

We consulted the EPA's list of Official State Greenhouse Gas Inventories, then cross-referenced with relevant state agency websites to ensure no additional inventories existed. If the state published a full GHG inventory, we recorded "yes." If the state published data on only aggregate CO2 emissions, we recorded "partial." Otherwise, we recorded "no."

b. *If the state has its own GHG inventory, how does it report emissions from transportation?*

We examined the collected state GHG inventories to assess whether and how they disaggregated transportation emissions. If the state had no GHG inventory, we recorded "not applicable."

If transportation emissions were categorized by vehicle type (e.g., onroad light-duty gas vehicles, onroad medium/heavy-duty diesel vehicles, non-highway, etc.), we recorded "by modality." If transportation emissions were categorized by fuel type (e.g., gasoline, diesel, aviation fuels, alternative fuels, etc.), we recorded "by fuel type." If transportation emissions were not disaggregated, we recorded "in aggregate."

Finding #4: Very few states make it easy for the public to offer climate-related input

a. *Can the public report climate-related concerns or vulnerable infrastructure?*

If the state DOT website has a form that allows the public to submit concerns and allows users to specifically submit "environmental" concerns or report an asset (e.g., roadway, culvert, bridge) as vulnerable to environmental impacts, we recorded "yes." If the state DOT has such a form that allows users to report issues of drainage or flooding, we recorded "partial." Otherwise, we recorded "no."

b. *Beyond plans required by the CPRG program or CRP, which of the state's climate resilience or mitigation plans included public input?*

We scanned all strategies and reports in the state beyond those federally required (i.e., excluding Carbon Reduction Strategies and Priority Climate Action Plans) to see whether public input was used in their development. We assessed all collected plans, even those that did not contain transportation-specific recommendations or analysis.

Public comment opportunities, public engagement meetings, public outreach, and public workshops were among the qualifying public input methods. If the plan relied on public input, we included recorded some subset of the following list: "Mitigation (cross-sector)"; "Mitigation (transportation-specific)"; "Resilience (cross-sector)"; "Resilience (transportation-specific)"; "Resilience (Resilience Improvement Plan)." If no plan relied on public input, we recorded "none." If the state had no such plan, we recorded "not applicable."