

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 public-facing DOT and state practices. 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 state DOT practices. Information was mainly sourced from state government websites, mostly relying on the full suite of documents available on each state’s DOT site. Those included, but were not limited to, Long-Range Statewide Transportation Plans (LRTP), Statewide Transportation Improvement Programs (STIP), and Transportation Asset Management Plans (TAMP). We also included state-level investment strategies, dashboards, reports, visuals, and other published content. In some cases, we drew on information published by other agencies, the governor’s office, relevant stakeholder groups, and state statutes and administrative codes.

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.

Note on data sources

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

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 published state DOT materials. In those instances, we deferred to the interviewee. Questions where those changes were made are noted below.

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 DOT staff and other stakeholders to share those.

Finding #1—Long-range planning: States have clear goals, but measuring progress toward those goals is often imprecise and inaccessible

We first consulted the Federal Highway Administration’s (FHWA) compiled list of state LRTPs (last updated August 2023), then cross-checked state DOT websites to ensure no newer LRTP existed.

Resource Hub | State Long Range Transportation Plans and Statewide Transportation Improvement Programs: <https://www.planning.dot.gov/stateplans/>

a. Do LRTP goals go beyond federal requirements?

If the goals in the state’s LRTP went beyond federal requirements, we recorded “yes.” If their goals include only a subset of the national goal areas, we recorded “no.” In cases where the LRTP borrowed the state DOT’s strategic or organizational goals, we appended “uses strategic vision goals.”

Federal requirements: [23 U.S.C. § 150\(b\)](#) states “it is in the interest of the United States to focus the Federal-aid highway program on the following national goals:

- (1) Safety.—To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.
- (2) Infrastructure condition.—To maintain the highway infrastructure asset system in a state of good repair.
- (3) Congestion reduction.—To achieve a significant reduction in congestion on the National Highway System.
- (4) System reliability.—To improve the efficiency of the surface transportation system.
- (5) Freight movement and economic vitality.—To improve the National Highway Freight Network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.
- (6) Environmental sustainability.—To enhance the performance of the transportation system while protecting and enhancing the natural environment.
- (7) Reduced project delivery delays.—To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies’ work practices.”

[23 U.S.C. § 135\(d\)\(2\)\(A\)](#) states “In general.-The statewide transportation planning process shall provide for the establishment and use of a performance-based approach to transportation decisionmaking to support the national goals described in section 150(b) of this title and the general purposes described in section 5301 of title 49.”

b. Do LRTP goals have implementation strategies?

If there was any information included in the LRTP addressing how the state DOT would achieve progress toward each goal, we recorded “yes, each goal.” If no goal area included such information, we recorded “no.” There were no instances in which states included such information for some goals but not all.

For each state where we recorded “yes, each goal,” we appended a parenthetical to the answer. The parenthetical included the most granular implementation steps, in the state’s own words. These included: “objectives,” “opportunities,” “recommendations,” “strategies,” “strategic actions,” “actions,” “action items,” “implementation plan tasks,” “implementation strategies,” “implementation initiatives,” “implementation actions,” “implementation measures,” “implementation plan actions,” and “implementation steps.”

c. Do LRTP goals have associated performance measures?

If the LRTP listed one or more performance measures related to each stated goal area, and the LRTP included a target outcome for each performance measure listed, we recorded “yes, each goal has performance measures and targets.”

If the LRTP listed one or more performance measures related to a subset of their stated goal areas, and the LRTP included a target outcome for each performance measure listed, we recorded “yes, but only some goals have performance measures.”

If the LRTP listed one or more performance measures related to each stated goal area, but the LRTP included a target outcome for only a subset (or none) of all performance measures listed, we recorded “yes, but some measures do not have targets.”

If the LRTP listed one or more performance measures related to a subset of their stated goal areas, and the LRTP included a target outcome for only a subset (or none) of all performance measures listed, we recorded “yes, but only some goals have performance measures and some measures do not have targets.”

If there were no performance measures included, we recorded “no.” We did not distinguish between federally required performance measures (as defined in [23 U.S.C. § 150\(c\)](#)) and those established at the state level, whether by a state DOT, commission, or legislature.

d. If LRTP goals have performance measures, is data publicly reported?

If we did not find a public-facing resource reporting data on the state’s performance measures, we recorded “no.” We did not use Transportation Asset Management Plans or the LRTP “system performance report” element required by [23 CFR 450.216\(f\)\(2\)](#) in answering this question.

If we found a public-facing resource reporting data on the state’s performance measures, but no performance measures were listed in the state’s LRTP, we recorded “sort of, tracks performance without LRTP measures.”

If we found a public-facing resource reporting data on the state’s performance measures but it only reported a subset of those performance measures enumerated in the state’s LRTP, we recorded “yes, some performance measures.” (Note: Many states only publicly report data on federal performance measures [PMs]. If those federal PMs were included in the LRTP, we don’t distinguish them with other state measures in this answer.)

If the state publicly reports data on all performance measures listed in their LRTP, we record “yes, every performance metric.”

Federal requirements: [23 U.S.C. § 150\(c\)](#) lists the following items that states must assess using FHWA-defined performance measures:

- “(I) the condition of pavements on the Interstate system;
- (II) the condition of pavements on the National Highway System (excluding the Interstate);
- (III) the condition of bridges on the National Highway System;
- (IV) the performance of the Interstate System; and
- (V) the performance of the National Highway System (excluding the Interstate System);
- (A) serious injuries and fatalities per vehicle mile traveled; and
- (B) the number of serious injuries and fatalities.
- (A) traffic congestion; and
- (B) on-road mobile source emissions.
- (6) National freight movement.—The Secretary shall establish measures for States to use to assess freight movement on the Interstate System.”

[23 CFR Part 490](#) defines the specific measures.

Finding #2—Project selection: States take advantage of vague regulations to make investments that are detached from long-range goals

a. Is the STIP or capital plan informed by the LRTP?

We recorded connections between long-range plans and investment decisions, noting specificity and substance of the linkage.

First, we checked whether a state generated a prioritized list of projects through their long-range planning process. If they did, we recorded “yes, projects selected in LRTP.” Otherwise, we moved on to the next option.

Second, we checked each state’s capital plan and STIP to see whether specific projects were linked to LRTP goals. If they were, we recorded “yes, individual projects in STIP or capital plan linked to LRTP goals or federal PMs.” Otherwise, we moved on to the next option.

Third, we looked in each state for a process or plan that used long-range goals to guide investment or programming. If we found such a process or plan, we recorded “yes, process or plan connecting investments to LRTP goals or federal PMs.” Otherwise, we moved on to the next option.

Finally, we checked whether the state’s STIP or capital plan references their long-range plan. If it does, we recorded “yes, STIP or capital plan references LRTP.” Otherwise, we recorded “no.”

During our validation efforts, multiple interviewees explained and demonstrated how the LRTPs and the STIP or capital plan may not be as closely tied as our original inventory believed. In those cases, we changed the “yes” answer to “sort of”—preserving a record of the document but deferring to the expert interviewee’s opinion.

b. Does the state DOT have a public project selection and prioritization process?

If a state DOT has a process for selecting and prioritizing projects that can be found on their website or in a document linked on their website, we recorded “yes.” We then appended the following qualifiers to clarify the scope of projects governed by the process:

All modes: The state’s process goes beyond roadways, prioritizing projects of at least one other mode.

Roadway projects: The state’s process only prioritizes roadway projects, but does so for roadways beyond the state highway system.

Highway projects: The state’s process only prioritizes projects on the state highway system.

Capacity projects: The state’s process only prioritizes projects that would expand capacity (e.g., highway widenings).

Major projects: Specific to Wisconsin, the process only prioritizes “major projects,” which are defined by their cost using delineations found in state code.

We did not include public processes for selecting and prioritizing projects under specific funding programs (e.g., eligibility and scoring criteria for competitive TAP funds awarded by the state DOT).

During our validation efforts, interviewees in some states said there was a publicly available process, but its role in selecting projects was either overstated or nonexistent. In those cases, we changed the “yes” answer to “sort of”—preserving a record of the document but deferring to the expert interviewee’s opinion. We retained the appended qualifier clarifying the scope of the project selection process.

c. Does the STIP say when projects were added?

If the year each project was first added to the STIP is included, we recorded “yes.” Otherwise, we recorded “no.”

d. Do asset management principles and asset condition drive project prioritization and programming?

If a state’s TAMP stated that the state DOT selects projects at least in part based on the principles and metrics included in the plan, we recorded “yes.” No states received a “no” answer.

Box 2. TAMPs: What they are and why they matter

a. What's the scope of assets in the TAMP?

If a state's TAMP reports the condition of assets on both their state highway network and the National Highway System (NHS), regardless of ownership, we recorded "NHS (state and local), state network." If a state's TAMP reports the condition of assets on both their state highway network and state-owned NHS, we recorded "NHS (state only), state network." If a state's TAMP reports the condition of all assets on the NHS regardless of ownership, but excludes state highway network assets, we recorded "NHS (state and local)." If a state's TAMP reports only the condition of state-owned assets on the NHS and excludes state highway network assets, we recorded "NHS (state only)."

Finding #3—Local collaboration: States rarely plan or invest in ways that meet the needs of regional and municipal partners

a. Does the state have a process for incorporating regional/MPO plans into the statewide LRTP?

MPO long-range plans are required to be fiscally constrained and include a list of projects to meet their goals. If the statewide LRTP was used to produce a prioritized, long-range list of projects and projects were sourced from the long-range planning efforts of MPOs, we recorded "yes, incorporates MPO LRP." If it did not, we moved to the next response.

We recorded "yes, aligns goals or assumptions" if the statewide LRTP did one of the following:

1. Visually demonstrated alignment between the goals of the state's MPO and the state's own LRTP
2. Stated that the statewide long-range goal involved "incorporation" or "integration" of MPO long-range plans or their goals, findings, recommendations, and assumptions

If the LRTP did neither of these, we moved on to the next response.

If the statewide LRTP specifically mentioned meetings held with MPOs during the plan's development or said that representatives from MPOs were members of a committee helping guide the development of the statewide LRTP, we recorded "yes, meetings and/or committee." If it did not, we moved on to the next response.

If the statewide LRTP mentioned collaboration with MPOs but did not provide specifics, we recorded "sort of, mentions collaboration." This includes a statewide LRTP that states they reviewed MPO plans for opportunities for alignment, but did not state or demonstrate that alignment. If the statewide LRTP did neither, we recorded "no."

b. What percent of the state DOT's FY23 budget was suballocated to sub-state entities?

Here, we define "suballocation" as the total funding in a state DOT's budget that is given to sub-state entities to be used at their discretion. This includes MPOs, counties, municipalities, villages, townships, and other entities where states differ. Importantly, this does not include funding that is programmed by a state but spent by a locality; funds awarded through

discretionary programs; or funds that a locality only spends through a joint partnership agreement or other arrangement in which the state retains a level of control.

We analyzed each state's appropriations bills and executive budgets to answer this question. For each state, we discerned which programs, functions, line items, and other budgetary items met our definition of suballocation. We divided that total suballocated amount by the state DOT's combined operating and capital budget. When we found evidence that transportation dollars flowed to cities or regions outside of the state DOT's budget, our math reflects those additional funds.

Our analysis was limited to FY23. Where states use biennial budgeting and/or appropriations, we disaggregated when possible, and used the biennium including FY23 when disaggregation was impossible. Additionally, we limited our calculations to appropriated amounts when possible, excluding actual revenues and spending.

Finding #4—Public involvement: States can do more to educate nongovernmental stakeholders and enhance their participation in transportation planning and investment

a. Is there a portal for programmed projects?

If the state DOT maintains a page visualizing or listing all programmed projects (i.e., projects for which the state may not yet have undertaken single-project planning or pre-development but has allocated funds) in the state, we recorded “yes.”

If the page only visualizes or lists what the state DOT describes as “major” projects, we recorded “yes, major projects.” If the page only visualizes or lists projects that are currently being developed (whether in pre-development, single-project planning, or construction), we record “yes, active projects.” Otherwise, we recorded “no.”

b. Is there a portal for state funding programs for locals?

If the state DOT maintains a page that lists state-run programs through which localities can receive funding, we recorded “yes.” If a page discussed “local public agency” agreements, aggregated only federal grant opportunities, hosted information about a specific state DOT office responsible for such funding, or included general information about funding for localities without enumerating specific programs, we recorded “sort of.” Otherwise, we recorded “no.”

c. Is there a portal for public involvement?

If the state DOT website includes a page where some set of public comment opportunities, project-specific surveys, and upcoming meetings are publicized, we recorded “yes.” If such a site includes only upcoming meetings hosted by the state DOT, we recorded “yes, upcoming meetings.” Otherwise, we recorded “no.”

d. Is there something visualizing the state's project selection and planning processes?

We thoroughly examined each state's LRTP, TAMP, STIP, and state-maintained capital program, where available. We also scanned every state DOT website. If the state DOT published a

flowchart that connected their planning, programming, and project selection, explaining the relationship between various processes, we recorded “yes, planning and programming.”

If the visual explained only a subset of relevant processes (e.g., the development of the state’s capital program or the STIP or LRTP process), we recorded “sort of incomplete.” If the most robust visual was so lacking as to say some variation of “planning informs project selection, which feeds into project prioritization,” we recorded “sort of, incomplete.” If it merely displayed the suite of plans maintained by the state DOT without illustrating their relationship, we recorded “sort of, incomplete.”

e. Is there a granular geospatial dataset of pavement and bridge condition?

We looked for dashboards, visualizations, or geospatial datasets that let users see the condition of specific assets, as opposed to conditions aggregated at the state level or by region and road classification. If the state published such a resource for both pavement and bridge assets, we recorded “yes.” If the state published such a resource for only pavement or only bridge assets, we appended “pavement only” or “bridges only,” respectively. Otherwise, we recorded “no.”

Finding #5—Independent bodies: Most states establish independent commissions to support their DOT operations, but their governance structures and legal authority vary widely

a. Does the legislature use an independent body to advise its spending?

If the legislature has an office, bureau, division, agency, or commission that is responsible for providing nonpartisan analysis of budget proposals and appropriations bills to members of the legislature, we recorded “yes.” If such an entity exists but it is not described as “objective,” “nonpartisan,” or “independent,” we recorded “sort of, independence unclear.” Otherwise, we recorded “no.”

b. Does the state have an independent body reviewing its overall approach to transportation funding?

First, we searched for an entity established by the state to evaluate its revenue generation mechanisms or method for transportation investment. If there was an active entity, we recorded, “yes, reviewing funding mechanisms.” If there was not, we moved to the next response.

We looked for a board or commission that was tasked with, at minimum, approving a state’s capital program, work program, or list of selected projects. We also looked for such an entity responsible for holding public meetings on those topics. If we found either, we recorded “yes, project selection or programming.” Otherwise, we recorded “no.”

Note: If we could not determine whether an entity was independent, we recorded “sort of” rather than “yes,” and maintained the appropriate appended qualifier (e.g., “project selection or programming”).

c. Is there an independent body that helps inform or judge strategies?

If we found that a board or commission was tasked with, at minimum, approving the state’s LRTP, we recorded “yes.” If such a board or commission exists, but its relationship to the state’s long-range planning is either ambiguous or explicitly nonexistent, we recorded “sort of, general board or commission.”

In the absence of either of the above answers, we recorded “yes, LRTP-specific” if the state had convened an external group to support the development of their LRTP. Otherwise, we recorded “no.”

Box 3. The legislative puzzle piece

a. Are appropriations done annually or biennially?

We referred to the report [The Budget Cycle and Line-Item Veto](#) (Urban Institute-Brookings Tax Policy Center), then cross-referenced with any documents explaining state budget and appropriations processes. We recorded how often states craft budget and appropriate funds: either “annually” or “biennially.”

Questions not analyzed in the brief

In addition to the prior questions, we assessed other information that helped us add nuance and offered additional context to the practices of state DOTs and legislatures.

a. What modal plans does the LRTP include in its development?

We searched the LRTP document and its accompanying website, where available, for references to other modal plans created by the state DOT and relied upon during the development of its long-range plan. Table 1 explains which kinds of plans qualify. Some unique planning efforts were included based on their relevance; many excluded plans were left out because they are either not modal (e.g., a DOT’s strategic plan) or were considered in other questions.

Table 1. Plans included and excluded

Included	Excluded
Freight	Strategic Highway Safety Plan; Highway Safety Improvement Program (HSIP)
Bicycle; Pedestrian; Bicycle and Pedestrian Update; Recreational Trails	Transportation Asset Management Plan
Aviation	Climate Action Plan; Climate Resilience Plan; Carbon Reduction/Mitigation Plan; Resiliency Improvement Plans
Transit; Intercity/Regional Bus Network	Corridor Plans
Rail	MPO Plans: Long-Range; Modal; Functional; Transportation Improvement Program
Maritime; Seaports and Waterways; Marine and Riverine	

ITS Architecture	
Highway	

b. Do states have a dashboard/publication where they update pavement or bridge conditions more frequently than a TAMP?

If the state maintains a resource where they publish asset performance data more often than the four-year TAMP, we record “yes.” If they do so in a visualization, webpage, or dashboard, we appended “in dashboard.” If they do so in a report or other document, we appended “in report.”

c. Which state legislature committees have jurisdiction over appropriations?

First, we found each bill making appropriations for FY24 related to transportation and state DOTs. We recorded each committee that considered each bill. We then cross-referenced those committees with any documents explaining state budget and appropriations processes.

d. Record key dates in the state's budget process below:

Deadline for agencies to submit budget requests to the governor: We relied on any documents explaining state budget and appropriations processes, recording when state agencies are required to submit budget requests to their executive, with as much specificity as was available. We cross-referenced with relevant state codes, where available.

Deadline for the governor to present a budget to the state legislature: We relied on any documents explaining state budget and appropriations processes, recording when each governor submits the state’s budget to the legislature, with as much specificity as was available. We cross-referenced with relevant state codes, where available.

Deadline for the governor to sign an appropriations bill (before pocket veto or automatic enactment): For each state, we referred to [Governor Deadlines & Effective Dates](#) (LegiScan), then cross-referenced with any documents explaining state budget and appropriations processes. We recorded the number of days each governor has before the bill is automatically vetoed or enacted, differentiating between bills passed during, in the final days of, or after the legislature’s session, where necessary.

e. How did legislators appropriate funds for executive agencies in FY24?

Once we found each bill appropriating state DOT funds, we examined the appropriations language and level of specificity in assigning funds to specific purposes. If funds were given as a lump sum (or a few lump sums with broad discretion), we recorded “single pot.” If funds were divided across modes, we recorded “by modality,” adding “by function” if funds were distributed with more specificity within each mode. If funds were divided across programmatic areas in the state DOT, we recorded “by program.” If the state legislature appropriated funds for specific projects or specific purposes, we recorded “by project or line-item.”

In some cases, appropriations were made using several of these methods. When this happened, we recorded all relevant categorizations.

f. In which appropriations bills are funds for a state DOT appropriated?

We cross-referenced any documents explaining state budget and appropriations processes, specifically vis-à-vis transportation funding, with bills considered by appropriations committees. We specifically looked for three different appropriations bills: a general appropriations bill, a capital bill, and a transportation-specific bill. We recorded the subset of those bills that funded, in part or entirely, the state DOT.