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Lifting the Veil on Bicycle & Pedestrian Spending:

An Analysis of Problems & Priorities in Transportation Planning and What to Do About It

This report benchmarks planned bicycling and walking project spending in the Statewide Transportation Improvement Program and breaks down how state Departments of Transportation can become more transparent and responsive to community needs.

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Executive Summary

Statewide Transportation Improvement Programs matter. At least every four years state Departments of Transportation (DOTs) must budget for the next four or more years of transportation funding. The product is a Statewide Transportation Improvement Program (STIP). STIPs are complex documents and must include all Transportation Improvement Programs (TIPs) created by Metropolitan Planning Organization (MPOs) developed for specific regions within a state.

STIPs are the fiscal expression of the next four plus years of planning and projects must be included in STIPs to receive federal funds. In FY 2014 more than $37.7 billion in federal funds were apportioned to states and will be spent on projects that are listed in STIPs. The documents examined for this report cover a variety of years and represent current planned transportation projects that will cost a combined $697 billion.

STIPs have the potential to be a great and valuable data source for understanding transportation investments of all types. We are particularly interested in learning more about investments that benefit people who bike and walk, but in general STIPs tell us what a state's priorities are for the future and that information can be invaluable. For this reason, Advocacy Advance conducted an analysis of STIP and MPO data available in the United States for all 50 states. In every state, four or more years of data was analyzed.

It is our hope that practitioners will provide reviews of the accuracy of the information and the prospects for improving the presentation of transportation projects in STIPs, especially bicycle and pedestrian elements.

PART I: Prevalence and Cost of Bicycling and Pedestrian Projects

This analysis, to our knowledge, is the first of its kind that attempts to analyze what is meant by "bike/ped" and see how projects are planned for different non-motorized user groups – namely those who use bicycle-only, pedestrian-only, and shared-use projects. We found:

1. Bicycling and walking investments are difficult to determine and appear to be small

Bicycle-only projects are a tiny piece of the pie and include projects such as on-street bikeway retrofits and bike share. Advocacy Advance found a total of **295 bicycle-only projects for a total of $422.3 million,** which represents a tenth of one-percent of total funding programmed in STIPs for 50 states.

Pedestrian-only projects are primarily sidewalks and the retrofitting of intersections and crossings for pedestrian safety. Advocacy Advance found a total of **1,397 pedestrian-only**

projects for a total of $1.19 billion, which represents 0.3% of total funding programmed in STIPs for 50 states.

Shared-use projects are improvements like trails and bicycle- and pedestrian-exclusive bridges and underpasses. Advocacy Advance found a total of **2,886 shared-use projects totaling $3.84 billion,** which represents 0.9% of total funding programmed in STIPs for 50 states.

2. Bicycling and walking facilities are more numerous than cost percentage estimates alone might suggest

For each state, we counted the number of projects that reported bicycle and pedestrian facilities of some kind. We found that the number of projects that included identifiable bicycle and pedestrian facilities ranged from 1.3% of all projects in Oklahoma to 27.1% in Washington. We also counted the percentage of costs associated with those facilities.

In most states the percent of projects with bicycling and/or walking facilities by count was a multiple of the percent of costs associated with the projects. On average, the percent of projects figure was three times the percent of costs figure calculated for each state.

This suggests that:

- Bicycling and walking facilities are more numerous than analyses that look solely at funding indicate.
- Bicycling and walking facilities are relatively inexpensive.
- Bicycling and walking projects being included in many projects should not be confused with a lot of money being spent on those facilities.

3. Complete Streets policies are often correlated with more projects including bicycling and walking facilities, but having good data better explains states' performance

Complete Streets policies are powerful tools that can ensure that bicyclists, pedestrians and all road users are accommodated in our transportation investments. In order to ensure the successful implementation of these policies, it is critical that considerations for all road users are documented. Our analysis revealed that the project descriptions listed in the STIP rarely included how all users will be accommodated in planned projects.

While many states with Complete Streets policies did well in our analysis, there was not strong evidence based upon current documentation that Complete Streets policies led to a more project descriptions mentioning bicycling and walking accommodations. Better documentation of Complete Streets considerations and investments in the planning process

would make monitoring and recognizing the success of Complete Streets easier – and states that scored better according to our Narrative Information criteria tended to have more projects with bicycling and walking facilities. This affirms the need to document policies and projects in order for them to be recognized.

4. No strong trend emerged in how states allocated spending among biking, walking, and shared-use facilities

Our methodology intentionally seeks to capture how states are serving people who bike and walk as distinct user groups by coding projects listed in the STIP as bicycle-only, pedestrian-only or shared-use facilities. Based on project counts, three overall trends emerged:

- More bicycling and walking facilities were planned as standalone projects, rather than as part of road projects.
- Walking facilities were reported more than bicycling facilities.
- Shared-use facilities were reported more than bicycling facilities.

PART II: Data Transparency

As we counted, coded and calculated bicycling and walking projects by count and cost, we also evaluated each STIP for 10 specific transparency criteria. The criteria were developed to address how states can improve their STIP reporting so citizens can better find, understand and evaluate planned transportation investments. The two most important things that state DOTs can do to improve the transparency of their STIP reporting are to provide better project descriptions (Description Clarity) and to coordinate data on a statewide basis (Open Data and Paper Trail).

Performance Measures

Moving Ahead For Progress in the 21st Century (MAP-21) requires that the U.S. Secretary of Transportation establish criteria to evaluate the effectiveness of performance-based planning processes of states. Including "[t]he extent to which a state … [p]rovides reports allowing the public to access the information being collected in a format that allows the public to meaningfully assess the performance of the state" (23 USC 135(h)(1)). **Based upon our review of each state's STIP, we do not believe that most STIPs currently provided allow the public to meaningfully assess the performance of the states.**

1. Description Clarity

The public needs to be able to easily read and understand project descriptions to be able to meaningfully assess planned transportation improvements. Advocacy Advance graded description clarity on the quality of data that's presented in the STIP, specifically **Quality Narrative Information, Federal Funding Sources are Identified,** and **Bicycle and Pedestrian Identifier is Available.** In our analysis, we discovered that states are typically not providing

easy-to-understand or detailed project descriptions. No state received all of the available points in this category and all states could improve.

2. Open Data

Providing open, accessible and interactive data has the potential to profoundly improve the usability of STIP data, and provides the potential for analysis. Specifically, Advocacy Advance graded open data on **Excel is Publicly Available** and **Interactive Presentation** of STIP data. Overall, this is an area where there is a lot of room for improvement and innovation.

3. Paper Trail

The STIP is a complicated document with many components. Advocacy Advance graded each state's paper trail and the ability to find and compile the elements of the STIP, specifically on **One Click Download is Available, MPO TIPs are Easy to Find,** and **MPO TIPs are Integrated.** Many state DOTs received all of the points available by providing a good paper trail and making their STIP and related documents easy to find and download. States with lower scores lacked coordination with MPOs, specifically failing to making MPO TIPs easy to find and failing to incorporate the TIPs into one comprehensive STIP document. Some state DOTs also do not educate citizens about MPOs, TIPs and how they are both a crucial part of the STIP process.

4. Point of Contact

Having a point of contact to answer public questions is critical to ensuring that citizens understand and engage with the transportation planning process. Advocacy Advance graded point of contact specifically on an **Contact is Clearly Assigned** and **Contact Email is Available.** The majority of states scored all of the points available in this category. Of the states that did not score all available points, thirteen did not clearly assign a contact to the STIP document and sixteen did not provide an email contact specifically for questions or comments about the STIP document.

PART III: State Score Cards

Advocacy Advance has assembled State Score Cards to summarize key data on the prevalence and cost of bicycling and pedestrian projects, and graded each STIP for its transparency across our four criteria. We hope that our STIP Score Cards will:

» **Start a conversation about transparency:** By rating each state based upon how their DOT presents federally required planning information, we hope to encourage best practices that improve transparency and lead to better civic engagement.

» **Encourage states to spend more on facilities for people who bike and walk:** By showing the current state of planned spending priorities and how non-motorized facilities are included, or not included, throughout planning documents, we hope that states will see the importance of including non-motorized facilities when planning projects. In states with Complete Streets policies, it is especially important that the inclusion of facilities for people who walk and bike is spelled out so that implementation occurs and can be recognized.

PART IV: Transportation Recommendations for Transportation Agencies

Advocacy Advance has provides specific examples of current good, bad, and noteworthy STIP practices. This section shows how states currently do some things well and provides guidelines on how to improve practices in the future.

Conclusion

We set out to understand state priorities for bicycling and walking investments using STIPs as a data source. This process was difficult because of problems in the way that STIPs are reported – primarily due to poor quality project descriptions, which makes priorities difficult to understand, and poor coordination between states and MPOs, which makes uniform and up-to-date documents difficult to find. This report attempts to document these issues and provide ways in which agencies and advocates can measure improvements in addressing these problems.

We recommend that agencies improve the transparency and accessibility of their STIP-related data. Our transparency criteria can be valuable tools, but there is also a great need for innovative and fresh presentations of these important documents. At a minimum, the public should be able to meaningfully assess transportation planning in their state, which requires better project descriptions and data that allows easier statewide analysis.

We recommend that agencies spend more on biking and walking investments, and ensure that people who use those modes are included in all projects where it is appropriate. Documenting these investments and inclusions can be valuable to agencies and advocates that must justify these decisions in a limited fiscal environment. Without better knowledge about current priorities it is difficult to be able to champion more investments – although they are surely needed.

Given how much money is programmed through the STIP process, more than $37 billion in federal funds alone each year, clearly the veil of secrecy caused by the complexity and lack of information produced in the STIP process must be lifted. Without better STIP documents there is little chance that the public can meaningfully assess the performance of transportation agencies and whether planned projects reflect stated policies and performance targets.

Lifting the Veil on Bicycle and Pedestrian Spending

Across the country, more and more communities are investing in improvements to make bicycling and walking safe and comfortable. And with good reason – citizens increasingly want to live in places where they can get around without a car. As more people demand better walking and biking networks, many citizens have become frustrated with slow responses to active transportation needs. Even as mayors and citizens speak up for active transportation, it can be difficult to answer simple questions like how many bicycle and pedestrian projects are in state pipelines.

State Departments of Transportation (DOTs) and Metropolitan Planning Organizations (MPOs) spend tens of billions of federal transportation dollars every year. However, when it comes to documenting public investments for bicycling and walking, reliable data has been notoriously hard to find. States inconsistently record past spending and can be vague on the details of planned projects.

At a time when Congress and the U.S. Department of Transportation are transitioning to a performance-based planning and programming paradigm, failure to collect good data on bicycling and walking investments and outcomes will mean that these modes are lost in the cracks. In the past several years, advocates, researchers, planners, and elected officials have asked for better tracking of active transportation investments as well as innovative attempts to parse existing, complicated data sources.

By examining planned bicycling and walking investments recorded in the Statewide Transportation Improvement Program (STIP) from all 50 states, this report benchmarks planned bicycling and walking project spending and breaks down exactly how state DOTs can become more transparent and responsive to community needs.

To better understand planned bicycle and pedestrian projects around the country, Advocacy Advance examined one of those complicated data sources: the Statewide Transportation Improvement Program (STIP). By examining planned bicycling and walking investments recorded in the STIP from all 50 states, this report benchmarks planned bicycling and walking project spending and breaks down exactly how state DOTs can become more transparent and more responsive to community needs. The process and criteria in this report can be used by others to track improvements in these areas over time.

We hope this report sheds light on the federal planning process. Basic access to information is an important prerequisite to an informed debate about transportation priorities. The current STIP process is largely opaque and difficult to understand. We hope **transportation agency staff** can use this report's transparency recommendations to improve STIP reporting practices, and for **bicycling and walking advocates** to call for better tracking of active transportation investments and for more investments in bicycling and walking projects.

PART I: Prevalence and Cost of Bicycling and Pedestrian Projects

Methodology

This report examines the Statewide Transportation Improvement Program (STIP) because of the following features that make it well suited to track federal transportation investments over time:

1. **Every STIP must contain a list of projects.** In 2011, only 13 states included specific projects in their state's Long-Range Transportation Plan. While projects can sometimes be found beyond the STIP's four year horizon, many projects are not specified until they are listed in the STIP.

2. **Every STIP must be fiscally constrained.** Fiscal constraint requires that each state show a reasonable financial plan for implementing listed projects. This ensures that the STIP is a relatively good reflection of what will actually be built in the state, or at least the priorities of the state.

3. **Every STIP must reflect each state's public involvement and performance measures.** Federal law requires that the STIP reflect performance targets and a public involvement process, including making public information available in electronically accessible formats and means.

STIPs have limitations that can affect their usefulness as a data source:

» The project descriptions contained in STIPs tend to be short and do not generally include all project components.

» Some projects are not specified until after the STIP, either through amendments and modifications to the STIP, or through small projects that are never specified in the STIP because they can be represented as "grouped" expenditures that do not specify the particular projects that will be built. Amendments and modifications are not always reflected in the STIP document and are often provided separately.

» Different states update their STIPs on different intervals, and in some cases MPOs within states also use different time periods, making state-to-state and sometimes intra-state comparisons problematic.

» The projects contained in STIPs may not be built with all of the facilities identified in the STIP. As projects progress towards completion later processes, such as "value engineering," may result in the removal of bicycling and walking facilities. According to a state's policies on STIP amendments and modifications, these changes may

or may not be reflected in updated versions of the STIP, if updated versions are provided.

» State and locally funded projects do not have to be included in the STIP unless they are "regionally significant."

Because of the different planning schedules in different states, it was not possible to analyze identical years. All STIPs were in the range of 2011-2017. A list of documents reviewed for each state can be found in the "Data Sources for Each State" on page 53 in the Appendix. Additional information about problematic reporting practices can be found in "What Did We Find about Data Transparency?" on page 25.

The Federal Transportation Planning Process

While states and localities may have their own processes for local planning decisions, each state and certain organizations within states are required to fulfill federally required transportation planning processes to receive federal funds for transportation investments.

Under the latest federal transportation bill, Moving Ahead for Progress in the 21st Century (MAP-21), there are three essential sources of data that each state must produce:

1. A **Long-Range Transportation Plan (LRP)** that covers at least a 20 year period and does not need to be updated on a regular schedule.
2. A **Statewide Transportation Improvement Program (STIP)** that covers at least a four year period and must be updated at least every four years.
3. Data that can be used to evaluate progress to meet **performance measures** according to the reporting periods laid out in MAP-21, which begin several years after enactment and reoccur at different periods for different performance measures.

There are other data sources that can be used to understand investments in bicycling and walking, but they all have limitations that the STIP theoretically does not. Many of these sources are reviewed in another Advocacy Advance resource, **Key Data Sources: Federal Investments in Bicycling and Walking in Your Community** available at www.advocacyadvance.org/resources.

The primary alternative federal data source is the Federal Highway Administration's Fiscal Management Information System (FMIS) which relies heavily upon staff to specifically code projects as "bike/ped" expenditures. For this reason, FMIS does not give the level of detail needed in order to provide an analysis on the different types of bicycling and walking facilities planned by states.

How Did We Examine STIPs?

Every state has a STIP and all STIPs incorporate Metropolitan Planning Organizations' (MPO) Transportation Improvement Programs (TIPs). In some states the STIP is a comprehensive document, but in others each TIP had to be individually examined. (For a list of specific documents we examined, please see "Data Sources for Each State" on page 53 in the Appendix.) When examining the relevant documents for each state our approach can be summed up as count, code, and calculate.

We counted the number of projects that included terms that corresponded to the types of facilities we are interested in – bicycle, bike, pedestrian, walk, path, trail, Complete Street, traffic calming, and road diet.

To the extent possible, we also accounted for other terms that appeared associated with similar projects, and all variations of the listed terms. We also counted the costs associated with each identified project that included one of the search terms.

We coded projects identified by the search terms as being a bicycle project, a pedestrian project, or a shared-use project.

For each project identified, we coded whether the project best fit the description of a standalone bicycling, walking, or shared-use project or a road project with bicycling, pedestrian, or shared-use facilities.

We Calculated:

- **Percent of Projects:** Based upon the number of projects identified and coded into each of our six project types we calculated the percent of that project type in relation to all projects in the STIP.
- **Percent of Cost:** Based upon the costs associated with all projects identified, we calculated the percent of costs associated with those projects in relation to all projects in the STIP.
- **Summary Information:** Based upon our coded project types and the information available for all projects in the STIP, we calculated total project counts and total project costs for each of the following categories (and their corresponding percentages): All projects with identified bicycle and pedestrian facilities, all projects without bicycle and pedestrian facilities, and all projects reported in the STIP.

Coding Search Terms

BICYCLES

- Bicycle / Bicycling
- Bike / Biking

PEDESTRIAN

- Pedestrian
- Walk / Walking

SHARED-USE

- Path
- Trail
- Complete Street
- Traffic calming
- Road diet
- Combination of bicycle and pedestrian terms
- Insufficient information to classify a project as bicycle- or pedestrian-only

Most federal data on bicycling and walking investments group bicyclists and pedestrians together as “bike/ped” – a single category of people who bike and walk. To better understand how our federal investments serve bicyclists and pedestrians, this report attempts to pull apart the term “bike/ped” and analyzes the data separately for each group. Each project listed in the STIP was coded to identify the types of users likely served by the facility – that is, bicyclists and pedestrians – and whether the facility was associated with a road project.

Types of Bicycle and Pedestrian Projects

To our knowledge, this is the first analysis that separately identifies federal investments for people who bike and walk, rather than accepting and using federal data for "bike/ ped." **This approach, however, is a direct reflection of the project descriptions as listed in the STIP and not necessarily a reflection of the projects as built.** The analysis is fundamentally one of documents and the projects as reported in those documents. In doing this analysis we faced limitations in the data that are further dealt within our transparency recommendations, project descriptions were especially problematic.

This analysis separately identifies federal investments for people who bike and walk, rather than accepting and using federal data for "bike/ ped."

BICYCLE AND/ OR PEDESTRIAN-ONLY PROJECTS

Bicycle-Only Projects

Bicycle-only projects are typically bicycle lanes that are added to roadways when no other roadway work is included in the project. Standalone bicycle projects also include innovative facilities such as cycle tracks. Bicycle-only recreational trails were not often listed separately in STIPs, but were coded as a bicycle-only project if found.

Photo Credit: Evan Manvel / Alliance for Biking & Walking

Pedestrian-Only Projects

Pedestrian-only projects tend to be the addition of sidewalks, crosswalks, or other pedestrian facilities that are added to roadways when no other roadway work is included in the project.

Photo Credit: Dan Burden / Pedestrian and Bicycle Information Center

Shared-Use Projects

Shared-use projects are standalone off-road trails and paths for bicycles and pedestrians and do not include other roadway work. In some instances, shared-use projects also included standalone roadway reconfigurations that prioritized travel for bicyclists and pedestrians only.

Photo Credit: Jim Hash / Pedestrian and Bicycle Information Center

ROAD PROJECTS WITH BICYCLE AND/ OR PEDESTRIAN FACILITIES

Road Projects with Bicycle Facility

Road projects with bicycle facilities are typically road resurfacings or widenings that added a bicycle lane, in addition to improving the roadway for automotive traffic.

Photo Credit: Shawn Turner / Pedestrian and Bicycle Information Center

Road Projects with Pedestrian Facility

Road projects with pedestrian facilities tend to be roadway widenings or intersection improvements that added sidewalks, crosswalks, or other pedestrian facilities, while also improving the roadway or intersection for automotive traffic.

Photo Credit: Lyubov Zuyeva / Pedestrian and Bicycle Information Center

Road Projects with Shared-Use Facilities

Road projects with shared-use facilities are roadway widenings or reconfigurations that add parallel off-road trails and paths for both bicyclists and pedestrians, in addition to improving the roadway or intersection for automotive traffic. Also included are projects that could not be categorized into any other project type, such as Transportation Enhancement or Transportation Alternative funding blocks that did not specify projects, and Complete Streets-type projects that involved road diets and/or traffic calming.

Photo Credit: Laura Sandt / Pedestrian and Bicycle Information Center

What Did We Find about Bicycling and Walking Investments?

1. Bicycling and walking investments are difficult to determine and appear to be small

Nationwide, only 1.3% of federal transportation dollars are planned to be spent on projects that only create bicycling and walking facilities. When road projects that also include bicycling and walking facilities were included, we found that states spend anywhere from 1% to 20% of their federal transportation dollars on projects that include bicycling and walking, with a nationwide average of 5.4%. The "Summary of Nationwide Findings for Bicycling and Walking Projects by Project Type" on page 20 looks deeper into how much each state spends on projects that only create bicycling and walking facilities, and the types of facilities planned in those investments.

Photo Credit: Evan Manvel / Alliance for Biking & Walking

When discussing costs associated with bicycling and walking projects there is a major distinction to be made between projects that only create bicycling and walking facilities and projects that create roads and bicycling and walking facilities. In the former, which we refer to as standalone, the costs associated with those projects are attributable to the bicycling and walking facilities, in the latter, it is not possible to attribute a definite portion of the associated costs to the bicycling and walking facilities.

The nationwide average of 5.4% includes road projects that create roads and bicycling and walking facilities, *it is not an estimate of federal funds spent on bicycling and walking infrastructure* because the majority of the costs are associated with road projects that included a bicycling and walking facility.

While half (54%) of all bicycling and walking projects are standalone facilities that do not involve road work, the cost of these projects are seemingly inexpensive and account for only about one-third (32%) of all costs associated with project that include bicycling and walking facilities. This suggests that bicycle- and pedestrian-only components are inexpensive and account for only a small portion of the costs associated with projects that include road work.

When examining road projects with bicycle and pedestrian facilities, the STIP data did not provide a feasible way to separate the costs of bicycle and pedestrian facilities from the costs of roadway improvements. Our analysis sometimes yielded high cost estimates, but the data generally suggest that federal bicycling and walking investments are relatively small.

2. Bicycling and walking facilities are more numerous than cost percentage estimates alone might suggest

For each state, we counted the number of projects that reported bicycle and pedestrian facilities. We found that projects with bicycle and pedestrian facilities ranged from 1.3% of all projects in Oklahoma to 27.1% in Washington. We also counted the percentage of costs associated with those facilities.[1]

In four states – Arkansas, Oklahoma, South Dakota and Wyoming – the percent of projects by count was lower than the percent by costs – meaning that there were very few bicycle and pedestrian projects, but they are relatively costly. In each of those states the majority of costs came from roadwork projects that also included bicycling and/or walking facilities.

1 As noted previously, the data does not allow the costs of bicycle and pedestrian facilities to be separated from road projects.

In all other states the percent of projects with bicycling and/or walking facilities by count was a multiple of the percent of costs associated with the projects. On average, the percent of projects figure was three times the percent of costs figure calculated for each state.

For example, in Colorado, 16.8% of all projects had an identified bicycling and/or walking facility, but the costs associated with those projects only accounted for 1.4% of all costs in the STIP – a multiple of nearly 12. This suggests that:

- Bicycling and walking facilities are more widespread than analyses that look solely at funding indicate.
- Bicycling and walking facilities are relatively inexpensive.
- Bicycling and walking projects being included in many projects should not be confused with a lot of money being spent on those facilities.

It's important to note that focusing on the percentage of bicycle and pedestrian projects ignores other important factors, such as quality and cost of a project (e.g., a shared lane arrow vs. cycle track). Our methodology also required counting *reported* STIP projects and cannot account for projects that state DOTs did not document in the STIP.

3. Complete Streets policies are often correlated with more projects including bicycling and walking facilities, but having good data better explains states' performance

Complete Streets are streets for everyone—that is, designed to enable safe access for people who bike, walk, take public transportation, or drive. As states are adopting Complete Streets policies, one would reasonably expect states with Complete Streets policies to have a higher number of projects with bicycling and pedestrian facilities listed in the STIP.[2] Counting projects is one of the methods suggested by the National Complete Streets Coalition for measuring implementation of Complete Streets policies.[3]

Our analysis revealed that states with Complete Streets laws and policies did not necessarily have a higher number of projects with identified bicycle and pedestrian facilities. Of the top 10 states with the highest percentage of bicycle and pedestrian facilities, eight had Complete Streets laws or policies. However, some states with Complete Streets policies also had some of the lowest percentages of bicycle and pedestrian facilities listed in the STIP. STIP documents can include projects that were developed years before the period covered by the STIP, and some may predate the adoption of Complete Streets policies, but current documentation did not allow us to determine when projects were first designed or conceived.

2 Information on state Complete Streets laws and policies was obtained from the Complete Streets Policy Atlas maintained by the National Complete Streets Coalition and Smart Growth America.

3 Measuring Performance, http://www.smartgrowthamerica.org/complete-streets/implementation/measuring-performance

Photo Credit: Tiffany Robinson / Pedestrian and Bicycle Information Center

Our analysis also revealed that the project descriptions listed in the STIP rarely included how all users are accommodated. Project descriptions were often fewer than one or two sentences, which is an inadequate space to meaningfully describe how different users are accommodated. Many STIPs used specific coding or work types (for example, “road widening”) that limited the understanding of the full scope of each project. States that earned high Narrative Information grades in our Description Clarity criteria tended to have more projects with identified bicycle and pedestrian facilities. Poor grades were particularly likely to have an impact on the number of facilities found. While there were 9 D's and F's in the best performing 29 states, there were 9 D's and F's in the bottom 10 states. Three of the four states that earned the highest Narrative Information grades were in the top 10.

Most Complete Streets laws are relatively new, and the results suggest that state DOTs have yet to include descriptions of Complete Streets in the STIP, whether written in individual projects or implemented through documentation processes that affect every project in the STIP. Since the focus of this report is on statewide practices and federal transportation planning, the data does necessarily say anything about the implementation of local Complete Streets policies, local planning, and local spending that is not reported in federally required documents.

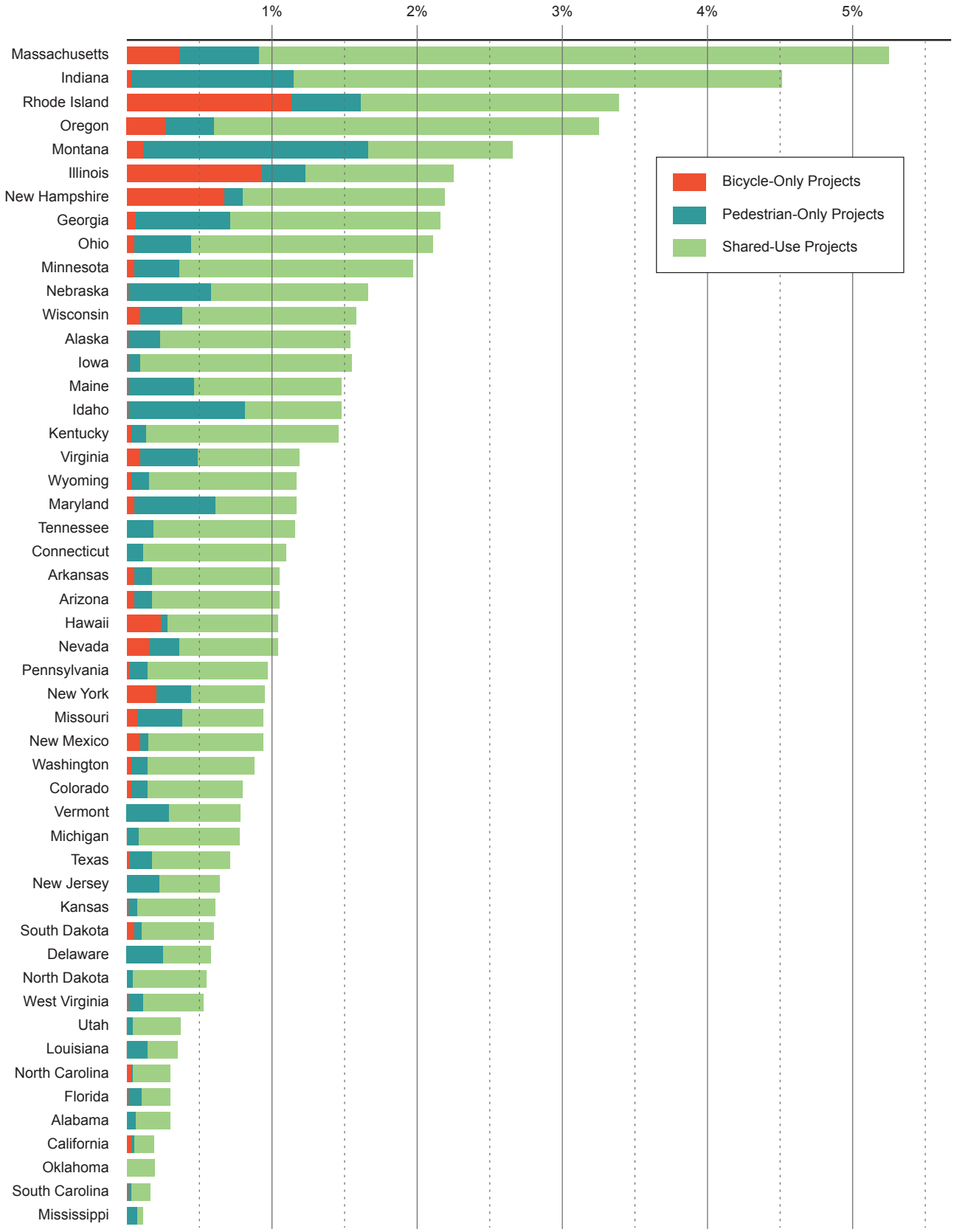
4. No strong trend emerged in how states allocated spending among biking, walking, and shared-use facilities

People who bike and walk sometimes use shared facilities, but they sometimes need separate facilities. Our methodology intentionally seeks to capture how states are serving people who bike and walk as distinct user groups by coding projects listed in the STIP as bicycle-only, pedestrian-only or shared-use facilities. Based on project counts, three overall trends emerged:

- **More bicycling and walking facilities were planned as standalone projects, rather than as part of road projects.** Thirty states reported the majority of their bicycling and walking facilities as being standalone projects. Since standalone projects do not involve road work, it is unlikely that they reflect Complete Streets-style projects. As Complete Streets policies are implemented, this relationship should change.

- **Walking facilities were reported more frequently than bicycling facilities.** Forty-five states reported far more facilities for people who walk than for people who bike, while one state – Iowa – reported an equal number of walking and bicycling facilities. Four states – Utah, Rhode Island, New Mexico and

Percentage of Total Costs on Standalone Bicycle & Pedestrian Facilities



Massachusetts – reported more bicycling facilities than walking facilities. There were three states – Arkansas, North Dakota, and Oklahoma – that reported zero bicycle facilities.

» **Shared-use facilities were reported more frequently than bicycling facilities.** The data also indicate that states report more off-road trails and paths rather than on-road bicycle lanes. Only one state – Hawaii – reported half as many bike facilities compared to shared-use facilities. In contrast, 14 states reported more pedestrian facilities than shared-use facilities. Shared-use facilities can present problems for bicyclists and pedestrians if the design does not truly accommodate both uses.

Summary of Nationwide Findings for Bicycling and Walking Projects by Project Type

PROJECT TYPE	PERCENT OF ALL PROJECTS (BASED ON COST)	PERCENT OF ALL PROJECTS (BASED ON COUNT)
Bicycle-Only Projects	0.1%	0.4%
Pedestrian-Only Projects	0.3%	1.6%
Shared-Use Projects	0.9%	3.8%
Road Projects **with** Bicycle and Pedestrian Facilities	4.1%	5.5%
Projects **without** Bicycle and Pedestrian Facilities	94.6%	88.7%
TOTAL	**100%**	**100%**

Data Issues Related to Bicycling and Walking Investments

The federal transportation planning process requires states to produce data on their transportation policies, decision-making and performance. This data lays out state priorities and processes, but their shortcomings in reporting practices leave many questions unanswered. In particular, facilities for people who bike and walk are not well accounted for – primarily because project descriptions do not describe the components of each project. Here are some common problems:

1. **Investments in bicycling and walking are relatively small and not well quantified.** The cost of bicycling and walking infrastructure is relatively small[1]. DOTs may not have developed processes to account for these smaller projects or may not see the value in accounting for them separately, when they occur as components of road projects. However, through contracting and construction experience, public agencies should be able to produce more detailed information on the costs of particular transportation infrastructure. More detailed information would be extremely valuable to efforts to increase active transportation.

2. **Inadequate project descriptions prevent citizens from understanding the quality of planned bicycle and pedestrian projects.** Citizens should be able to determine the type, scale and quality of planned bicycling and walking facilities. When the STIP lacks detailed project information, it makes it difficult for citizens to find, understand and evaluate reported projects. It is difficult for citizens to be meaningfully involved if they cannot meaningfully assess where their involvement is needed.

3. **Bicycling and walking improvements can take many forms, some of which may not be reflected in the STIP.** There are some facilities that are hard to capture in the STIP, such as wide shoulders. These types of facilities may not be listed individually because they are included as project components rather than potentially important facilities for people who bike and walk. However, the routine inclusion of these types of facilities can be a great improvement for people who bike and walk.

4. **Funding for bicycling and walking projects comes from a diverse mix of federal, state and local sources.** Most roads are funded from a variety of sources, but facilities for people who bike and walk may involve multiple state and local agencies outside of transportation. Other agencies such as Public Health, Natural Resources, and Parks and Recreation all have an interest in active transportation and may provide funding not reflected in the STIP. DOTs should coordinate with other departments to ensure that planned facilities from all agencies are connected.

1 The cost of roadway infrastructure is an order of magnitude larger than bicycling and walking infrastructure. The Pedestrian and Bicyclist Information Center found the average cost of a mile of bike lane is $133,170 and the average cost of a mile of concrete sidewalk is $168,960. The American Road & Transportation Builders Association reports that it costs $1.25 million to resurface a 4-lane road; and between $2 and $5 million to construct a new 2-lane, undivided road.

PART II: Data Transparency

Methodology

The recommendations in this report build upon the groundbreaking work of two leading good government advocacy organizations: the Tri-State Transportation Campaign and the Sunlight Foundation.

The Tri-State Transportation Campaign (Tri-State) has been instrumental in highlighting the STIP as a tool for understanding our federal transportation investments and advocating for better decisions. In 2012, Tri-State published "Tracking State Transportation Dollars," which examined STIPs through the lens of 9 project types to determine each state's priorities.[4] The report made the following recommendations for STIPs nationwide:

1. Increase accessibility of STIPs and create a state DOT contact for all STIP questions.
2. Require uniform information and project categories.
3. Include descriptions and costs of project components.
4. Develop performance metrics for STIP projects.

The Sunlight Foundation is a nonpartisan nonprofit that uses the power of the internet to catalyze greater government openness and transparency. The Sunlight Foundation has many recommendations for improving the transparency of government documents and processes through the application of open data concepts. We drew upon two of their policy documents, "Ten Principles for Opening Up Government Information" and "Open Data Guidelines," in developing our transparency criteria. We found the following concepts particularly important as agency staff, citizens, and advocates look to improve transparency in transportation planning:

1. Complete reporting of what is recorded about a particular subject.
2. Use of unique identifiers.
3. Creation of processes to ensure data quality.
4. Easy physical and electronic access.
5. Publishing in machine readable formats.

4 Tri-State continues to use STIP analysis to help citizens understand state priorities and the implementation of New York State's Complete Streets policy. You can follow Tri-State's work at http://blog.tstc.org/.

Performance Measures

MAP-21 requires that the U.S. Secretary of Transportation establish criteria to evaluate the effectiveness of performance-based planning processes of states. These criteria must consider:

1. The extent to which a state is making progress toward achieving performance targets, and
2. The extent to which a state -
   - » Has developed an investment process that relies on public input and awareness, and
   - » Provides reports allowing the public to access the information being collected in a format that allows the public to meaningfully assess the performance of the state.[1]

This requirement should push states towards following the recommendations of the Tri-State Transportation Campaign and improving their scores according to our transparency criteria. Based upon our review of each state's STIP, **we do not believe that most STIPs currently provided allow the public to meaningfully assess the performance of the states**. Although many of the performance measures adopted pursuant to MAP-21 will rely upon information developed outside of the STIP and be reported separately from the STIP, the STIP is a crucial public involvement tool and may be a tool for assessing and disseminating information on the achievement of goals to reduce congestion, reduce project delivery delays and promote environmental sustainability.[2] Developing better STIP processes and data is also likely to contribute to the ability of a state to provide the required biennial report that describes the effectiveness of the state's investment strategy.[3]

1 23 USC 135(h)(1)
2 23 USC 150(b)(3), (6), & (7)
3 23 USC 150(e)(2)

How Did We Examine Data Transparency?

As we counted, coded and calculated bicycling and walking projects by count and cost, we also evaluated each STIP for 10 specific transparency criteria. The criteria were developed to address how states can improve their STIP reporting so citizens can better find, understand and evaluate planned transportation investments. It is important to note that the transparency criteria were chosen to be as objective as possible and in most cases include a quantifiable object, which unfortunately may not tell the entire story. For example, we could not quantify whether or not the STIP was beautifully designed; instead, we included criteria to address presentation and the ease of finding information.

Criteria for Data Transparency

Our 10 criteria are grouped into four categories: Description Clarity; Open Data; Paper Trail; and Point of Contact.

1. **Description Clarity** quantifies the quality of the data that is presented in the STIP.
   - » **Quality Narrative Information.** The public should be able to read and understand how funds are being spent on transportation investments. Without well-written, specific project descriptions, it can be very difficult to understand what projects

Overview of Transparency Criteria

DESCRIPTION CLARITY
- Quality Narrative Information
- Federal Funding Sources are Identified
- Bicycle and Pedestrian Identifier is Available

OPEN DATA
- Excel is Publicly Available
- Interactive Presentation

PAPER TRAIL
- One Click Download is Available
- MPO TIPs are Easy to Find
- MPO TIPs are Integrated

POINT OF CONTACT
- Contact is Clearly Assigned
- Contact Email is Available

are being planned, and why they need to be built. Because STIP documents do not have a standardized format, any information that described the scope and components of a project was considered as narrative information. Descriptive phrases and plain English were graded better than terms of art (e.g. “improvement”) and codes.

» **Federal Funding Sources are Identified.** States are required to identify the amount of federal funds that are expected to be obligated to a project.[5] In some instances the state and MPO are also required by federal law to include the proposed category of federal funds and source(s) of non-federal funds.[6] Accurate and easy to understand reporting of proposed funding sources better allows the STIP to function as a key source of data, and aids in the understanding of federal funding programs.

» **Bicycle and Pedestrian Identifier is Available.** To best parse out what how different road users are being accommodated, states should clearly note if a project contains a bicycling and/ or walking facility. Identifying facilities for people who bike and walk is an important practice because it allows assessments of compliance with Complete Streets policies and identification of projects that may pose connectivity problems for people who bike and walk. Given the number of states with bicycle and pedestrian master plans – the majority of states have a bicycle master plan[7] – this type of identification is also a proxy for the integration of planning documents and documents, which makes the planning process easier to understand.

5 23 CFR 450.216(i)(2)

6 According to federal regulations, the STIP shall include for each project or phase: (1) sufficient descriptive material to identify the project or phase; (2) estimated total project cost, or a project cost range; (3) the amount of federal funds to be obligated during each program year; and (4) identification of the agencies responsible for carrying out the project or phase. In the first year, the amount of federal funds to be obligated includes the proposed category of federal funds and the source(s) of non-federal funds. For other years this is to include the likely category or possible categories of federal funds. 23 CFR 450.216(i).

Examples of funding categories commonly associated with bicycle and pedestrian infrastructure include continuing programs such as the Transportation Alternatives Program (TAP) and the Congestion Mitigation and Air Quality Improvement Program (CMAQ).

7 27 states have adopted a bicycle master plan according to the "2012 Benchmarking Report" published by the Alliance for Biking and Walking.

2. **Open Data** quantifies how easy or hard it is to interact with data provided by the STIP.

    » **Excel is Publicly Available:** STIPs tend to be large documents with many data fields for each listed project. Spreadsheets, such as ones created by Microsoft Excel, provide far better accessibility and machine readability than the PDF documents that most states currently provide.

    » **Interactive Presentation:** Several states and MPOs provide ways to interact with their data online using visualization techniques and searchable databases. When implemented well, interactive presentations can dramatically increase the accessibility of STIP documents and leverage the data contained in project categories and project descriptions.

3. **Paper Trail** quantifies how difficult it is to find and compile the elements of the STIP.

    » **One Click Download is Available:** A "one click" or "bulk" data download of all projects listed in the STIP enhances ease of understanding of statewide transportation priorities in one easy step, versus the need to download multiple sets of information.

    » **MPO TIPs are Easy to Find:** The STIP also includes each MPO's TIP within the state. It is therefore important for a state DOT to include a list of MPOs within the state. By making MPOs easy to find, the state DOT can help citizens understand both statewide and local priorities and processes that are likely to impact transportation decisions

    » **MPO TIPs are Integrated:** A state DOT can profoundly improve the STIP's accessibility and usability by integrating relevant MPO TIPs to create a single, comprehensive STIP document. If a state DOT includes a MPO's TIP "by reference" – instead of being compiled into one comprehensive document – the state places the burden on the citizen to compile all TIPs with the STIP. In many states, this can involve compiling thousands of pages of documents across a dozen or more MPOs.

4. **Point of Contact** quantifies how easy it is to find and contact a person about the STIP.

    » **Contact is Clearly Assigned:** It is inevitable that citizens will have questions or comments about the STIP document itself or related to the reported projects, priorities and policies found in the STIP. When those questions and comments arise there should be a clear way for citizens to have their voice heard.

    » **Contact Email is Available:** Online engagement through email should be the primary form of communication that citizens will use to ask questions or provide comments.

What Did We Find about Data Transparency?

Our criteria are based upon current practices that can be judged in a data-driven manner. While no state had a perfect score, even a perfect score would not mean there is no room for improvement. The two most important things that state DOTs can do to improve their STIP reporting are:

1. Provide more information on individual projects through **better project descriptions,** and
2. **Coordinate data on a statewide basis** with all relevant partners, especially MPOs, so that data can be easily aggregated in a format that allows comparisons and analysis (ideally in a spreadsheet format compatible with Microsoft Excel).

The two most important things that state DOTs can do are provide better project descriptions and coordinate data on a statewide basis.

Since the STIP is a statewide document, the focus of our examination was on state DOTs and statewide practices. If there was an inconsistency or disconnect between state practices and MPO practices, the state practice was the one graded.

You can find specific examples of good practices for each of our transparency criteria and some of the open data principles advocated by the Sunlight Foundation in "PART IV: Transparency Recommendations for Transportation Agencies" on page 34. Additional information on how we scored each criteria and graded each category and state can be found in the "Transparency Weighting and Criteria" on page 55 of the Appendix.

1. Description clarity can be dramatically improved

The public needs to be able to easily read and understand project descriptions to be able to meaningfully assess planned transportation investments. In our analysis, we discovered that states are typically not providing easy-to-understand or detailed project descriptions. **Currently, most projects listed in STIPs and related documents are described in fewer than three sentences – despite the fact that the average project costs well over one million dollars.** No state received all of the available points in this category and all states could improve.

Grade Distribution Among States for Description Clarity

In terms of identifying federal funding sources for each project listed in the STIP, there was considerable variation in how well states met this federal regulation.

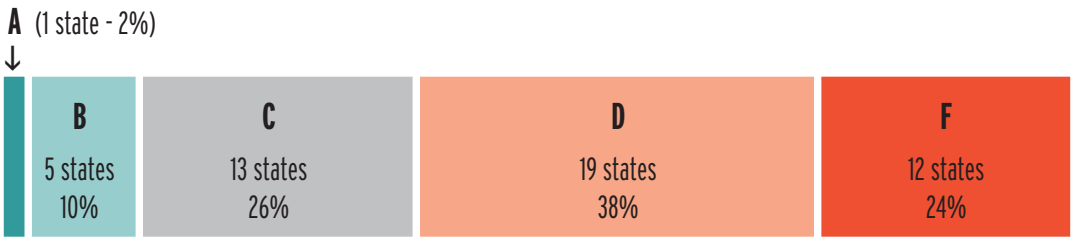
Several states and MPOs made some effort to identify projects that included facilities for people who bike and walk when those facilities are not included in narrative project descriptions.

To improve description clarity, states should consider how they can leverage other planning processes to provide higher quality project descriptions. Information about how to improve project descriptions and some current best practices can be found in "PART IV: Transparency Recommendations for Transportation Agencies" on page 34.

2. Most states can dramatically improve the openness of their data

Providing open, accessible and interactive data has the potential to profoundly improve the usability of STIP data. Overall, this is an area where there is a lot of room for improvement and innovation.

Grade Distribution Among States for Open Data



Only one state – Florida – provided both a publicly available Excel document and a searchable online database for the STIP. Twelve states had a publicly available Excel document, while another 20 provided an Excel document upon request.

Eighteen states had some sort of online database or map for their STIP. Twelve states had both some sort of Excel availability and some sort of online database or map.

3. State coordination with MPOs has room for improvement, but some do it right

Many state DOTs received all of the points available by providing a good paper trail and making their STIP and related documents easy to find and download. States with lower scores lacked coordination with MPOs, specifically failing to make MPO TIPs easy to find and did not incorporate the TIPs into one comprehensive STIP document. When MPO TIPs are integrated into a comprehensive STIP, it is less necessary for the public to find the MPOs themselves. Some states placed the burden of knowing and understanding the role of MPOs in the STIP process entirely on the public.

Grade Distribution Among States for Paper Trail

While not as much of a burden as compiling multiple documents from multiple sources, nine states required multiple documents to be downloaded in order to compile a complete STIP. Providing the option to download a single STIP document as an option allows easier statewide analysis.

States can improve their current paper trail practices by simply providing additional information that educates the public about MPOs within the state, and providing a single STIP document available for download. Coordinating with MPOs to include TIP documents may be more difficult, but under our scoring criteria, even simply aggregating MPO TIPs into one document would be an improvement.

4. Most states make contact information available

The majority of states scored all of the points available in this category. Of the states that did not score all available points, thirteen did not clearly assign a contact to the STIP document and fifteen did not provide an email contact specifically for questions or comments about the STIP document.

Grade Distribution Among States for Point of Contact

Improving in this category should be relatively easy, but may be tied to larger policies about whether contact information for government employees is publicly available. If personalized contact information is not available then it should still be clear where to make contact for questions and comments and it should be easy to do so online.

A Call for a Project-Centered Ecosystem of Planning Documents

The Federal Highway Administration (FHWA) recently published its Performance-Based Planning and Programming Guidebook. The Guidebook suggests that agencies should build upon current required performance based-approaches, coordinate and collaborate broadly, and link planning and programming – particularly the Long-Range Transportation Plan, STIP, and MPO TIP – together.

It seems unlikely that a single process or data source that will be able to provide all of the nuanced information that agencies, advocates and citizens individually need to meaningfully assess transportation decisions. In an ideal world, the numerous transportation planning documents and processes would be linked to create an ecosystem so that citizens can better understand transportation decisions. For this to happen, data needs to be more open, accessible and able to linked to one another.

The STIP occupies an important space within the ecosystem at the intersection of planning and implementation. The STIP therefore may serve as a good foundation to link to diverse relevant data and processes. While the particulars of a connected ecosystem of planning documents are beyond the scope of this report, our analysis suggests that documents should be, at minimum, be made available in formats that allow aggregation and analysis in order to provide a comprehensive picture of planned transportation investments. The proper development of a project-centered ecosystem of transportation-related documents likely begins with an inventory of the documents, processes and relevant data.

Suggested Items for the Project-Centered Ecosystem of Planning Documents

	AREAS FOR PUBLIC COMMENT AND INVOLVEMENT				
	PLANNING			IMPLEMENTATION	EVALUATION
	Development of Transportation Plans	**Development of STIPs**	**Project Development**	**Systems Operation**	**Monitor System Performance and Gather Data**
DOCUMENTS TO FIND PROJECT-RELATED INFORMATION	Long-Range Transportation Plan (statewide or metropolitan) Strategic Highway Safety Plan (continuous and cyclical)	STIP/ MPO TIP	Design Guidelines	Construction Letting/ Contracts	Evaluate Safety Outcomes
	Comprehensive Planning		Environmental Impact Assessments	Design Documents	Evaluate Accuracy of Planning Estimates
		Categorical Exclusion Process		Construction-Related Information	
	Specialized Master Plans or Studies (e.g., Bicycle, Pedestrian or Freight)				
	Congestion Management Process in MPO areas with more than 200,000 residents. (Update usually linked to TIP or metropolitan Long-Range Transportation Plan)				Evaluate Efficiency Outcomes
	Health Impact Assessments				Health Impact Assessments
	Planning Processes from Non-Transportation Departments or Agencies (e.g., Public Health, Natural Resources and Parks & Recreation)				
			Current Non-Uniform/ Unintegrated Project-Specific Web Resources/ Processes		
			STIP/ TIP Amendments and Modifications		
			Timeline from first STIP listing to completion		

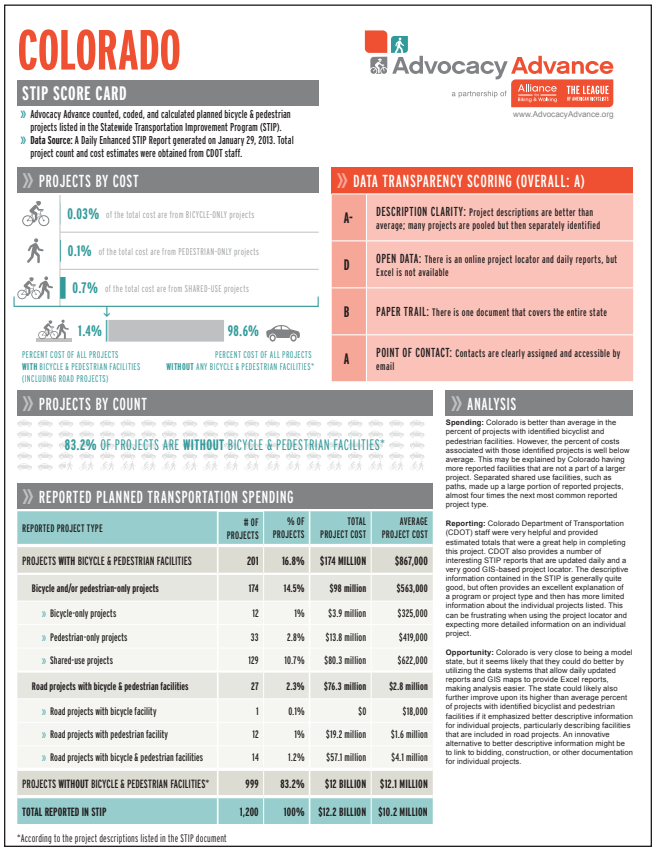
PART III: State Score Cards

Introduction to State-by-State Analysis

Each state has a custom Score Card that presents the findings from our approach to count, code and calculate every reported bicycling and pedestrian investment and the transparency of the data presented in the STIP. This section explains how advocates and agency staff can use each part of the Score Card and guides users to other areas of this report that give greater context to each Score Card.

We hope that our Score Cards will:

Score Cards have been developed for each state to shed light on the reported bicycle and pedestrian investments and data transparency. To download your state's customized Score Card, please visit www.advocacyadvance.org.



COLORADO

STIP SCORE CARD

» Advocacy Advance counted, coded, and calculated planned bicycle & pedestrian projects listed in the Statewide Transportation Improvement Program (STIP).

» Data Source: A Daily Enhanced STIP Report generated on January 29, 2013. Total project count and cost estimates were obtained from CDOT staff.

Advocacy Advance
a partnership of Alliance for Biking & Walking | The League of American Bicyclists
www.AdvocacyAdvance.org

» PROJECTS BY COST

0.03% of the total cost are from BICYCLE-ONLY projects

0.1% of the total cost are from PEDESTRIAN-ONLY projects

0.7% of the total cost are from SHARED-USE projects

1.4% — PERCENT COST OF ALL PROJECTS WITH BICYCLE & PEDESTRIAN FACILITIES (INCLUDING ROAD PROJECTS)

98.6% — PERCENT COST OF ALL PROJECTS WITHOUT ANY BICYCLE & PEDESTRIAN FACILITIES*

» DATA TRANSPARENCY SCORING (OVERALL: A)

A-	DESCRIPTION CLARITY: Project descriptions are better than average; many projects are pooled but then separately identified
D	OPEN DATA: There is an online project locator and daily reports, but Excel is not available
B	PAPER TRAIL: There is one document that covers the entire state
A	POINT OF CONTACT: Contacts are clearly assigned and accessible by email

» PROJECTS BY COUNT

83.2% OF PROJECTS ARE WITHOUT BICYCLE & PEDESTRIAN FACILITIES*

» ANALYSIS

Spending: Colorado is better than average in the percent of projects with identified bicyclist and pedestrian facilities. However, the percent of costs associated with those identified projects is well below average. This may be explained by Colorado having more reported facilities that are not a part of a larger project. Separated shared use facilities, such as paths, made up a large portion of reported projects, almost four times the next most common reported project type.

Reporting: Colorado Department of Transportation (CDOT) staff were very helpful and provided estimated totals that were a great help in completing this project. CDOT also provides a number of interesting STIP reports that are updated daily and a very good GIS-based project locator. The descriptive information contained in the STIP is generally quite good, but often provides an excellent explanation of a program or project type and then has more limited information about the individual projects listed. This can be frustrating when using the project locator and expecting more detailed information on an individual project.

Opportunity: Colorado is very close to being a model state, but it seems likely that they could do better by utilizing the data systems that allow daily updated reports and GIS maps to provide Excel reports, making analysis easier. The state could likely also further improve upon its higher than average percent of projects with identified bicyclist and pedestrian facilities if it emphasized better descriptive information for individual projects, particularly describing facilities that are included in road projects. An innovative alternative to better descriptive information might be to link to bidding, construction, or other documentation for individual projects.

» REPORTED PLANNED TRANSPORTATION SPENDING

REPORTED PROJECT TYPE	# OF PROJECTS	% OF PROJECTS	TOTAL PROJECT COST	AVERAGE PROJECT COST
PROJECTS WITH BICYCLE & PEDESTRIAN FACILITIES	201	16.8%	$174 MILLION	$867,000
Bicycle and/or pedestrian-only projects	174	14.5%	$98 million	$563,000
» Bicycle-only projects	12	1%	$3.9 million	$325,000
» Pedestrian-only projects	33	2.8%	$13.8 million	$419,000
» Shared-use projects	129	10.7%	$80.3 million	$622,000
Road projects with bicycle & pedestrian facilities	27	2.3%	$76.3 million	$2.8 million
» Road projects with bicycle facility	1	0.1%	$0	$18,000
» Road projects with pedestrian facility	12	1%	$19.2 million	$1.6 million
» Road projects with bicycle & pedestrian facilities	14	1.2%	$57.1 million	$4.1 million
PROJECTS WITHOUT BICYCLE & PEDESTRIAN FACILITIES*	999	83.2%	$12 BILLION	$12.1 MILLION
TOTAL REPORTED IN STIP	1,200	100%	$12.2 BILLION	$10.2 MILLION

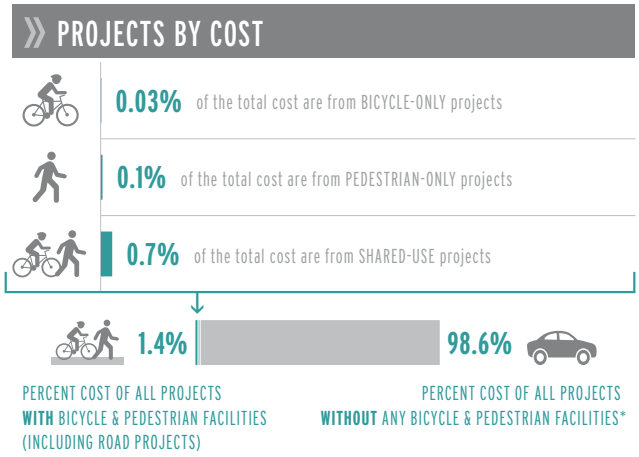
*According to the project descriptions listed in the STIP document

1. **Start a conversation about transparency:** By rating each state based upon how their DOT presents federally required planning information, we hope to encourage best practices that improve transparency and lead to better civic engagement.

2. **Encourage states to spend more on facilities for people who bike and walk:** By showing the current state of planned spending priorities and how non-motorized facilities are included, or not included, throughout planning documents, we hope that states will see the importance of including non-motorized facilities when planning projects. In states with Complete Streets policies, it is especially important that the inclusion of facilities for people who walk and bike is spelled out so that implementation occurs and can be recognized.

How to Use the Score Card

Due to the variations in the quality and timeframe of the data reported in individual state's STIP, a direct comparison between states can be problematic. Therefore we have created Score Cards for each state that provide an understanding of how each state is doing in terms of planning for bicycling and walking projects.



Projects By Cost

What it is: A quick summary of a state's spending priorities. The costs associated with projects that build bicycling, walking, and shared-use infrastructure only are prominently featured. For those projects all identified project costs are attributable to the planned construction of facilities for people who bike and walk.

The cost associated with all projects with bicycling and walking facilities (including road projects) is also shown. For that larger figure some of those costs are attributable to road work. This figure does not reflect the amount actually spent on bicycle and pedestrian facilities, as there is no accurate way to approximate the costs of only those facilities. The reported costs are over the entire period of the document(s) examined.

How to use: Explain just how little is spent on facilities for people who bike and walk, and how federal transportation investments often do not include human-scale improvements. If the total cost number seems high, this section puts it into context.

Projects By Count

What it is: A quick summary of how many reported projects made no mention of bicycling and walking facilities. This highlights the extent to which states do not account for people who bike and walk in their planned investments.

How to use: Advocates can call for more projects that include facilities for people who bike and/or walk and that project descriptions accurately describe how walking and biking are accommodated. For states with Complete Streets laws or policies, a low inclusion rate likely shows that those laws and policies are not being included into the planning process or that their implementation is not being documented.

REPORTED PLANNED TRANSPORTATION SPENDING

REPORTED PROJECT TYPE	# OF PROJECTS	% OF PROJECTS	TOTAL PROJECT COST	AVERAGE PROJECT COST
PROJECTS WITH BICYCLE & PEDESTRIAN FACILITIES	201	16.8%	$174 MILLION	$867,000
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» Road projects with pedestrian facility	12	1%	$19.2 million	$1.6 million
» Road projects with bicycle & pedestrian facilities	14	1.2%	$57.1 million	$4.1 million
PROJECTS WITHOUT BICYCLE & PEDESTRIAN FACILITIES*	999	83.2%	$12 BILLION	$12.1 MILLION
TOTAL REPORTED IN STIP	1,200	100%	$12.2 BILLION	$10.2 MILLION

Reported Planned Transportation Spending

What it is: A summary of all of the project data collected as part of this project, by project type. This section also includes estimates of average project costs. Average project costs can be highly variable because they reflect a rough calculation of the number of identified projects and the costs associated with those projects. When identified projects were pooled projects, the average project cost reflects the size of that pool and not the size of the project(s) eventually built by that pool.

How to use: Provide context to any conversation about the types of walking and biking facilities. In a conversation about safety it may help identify whether current planned investments meet the areas of concern. In a conversation about commuting or congestion, it may help identify whether facilities are being planned to meet changing mode share realities or goals. The average project cost estimates may be used to show that facilities for people who bike and walk tend to be less expensive projects and included in less expensive projects.

DATA TRANSPARENCY SCORING (OVERALL: A)

A-	DESCRIPTION CLARITY: Project descriptions are better than average; many projects are pooled but then separately identified
D	OPEN DATA: There is an online project locator and daily reports, but Excel is not available
B	PAPER TRAIL: There is one document that covers the entire state
A	POINT OF CONTACT: Contacts are clearly assigned and accessible by email

Data Transparency Scoring

What it is: A quick summary of the information we collected on transparency practices. The overall grade is not a strict average of the sub-grades, but rather reflects a weighting of each transparency criteria that is explained in "Transparency Weighting and Criteria" on page 55 of the Appendix. You can find out more about why we chose our criteria in the "How Did We Examine Data Transparency?" on page 22.

How to use: Advocate for better transparency practices and coordination between state transportation agencies and federally established planning entities, primarily

MPOs. States are required to make information public in accessible means and involve the public.

MAP-21 holds states responsible for their investments and whether they are meeting goals by establishing an evaluation of the planning process including public input efforts and the way in which information is reported to the public.[8] These criteria should be used to advocate for more meaningful information that can facilitate greater public involvement.

» ANALYSIS

Spending: Colorado is better than average in the percent of projects with identified bicyclist and pedestrian facilities. However, the percent of costs associated with those identified projects is well below average. This may be explained by Colorado having more reported facilities that are not a part of a larger project. Separated shared use facilities, such as paths, made up a large portion of reported projects, almost four times the next most common reported project type.

Reporting: Colorado Department of Transportation (CDOT) staff were very helpful and provided estimated totals that were a great help in completing this project. CDOT also provides a number of interesting STIP reports that are updated daily and a very good GIS-based project locator. The descriptive information contained in the STIP is generally quite good, but often provides an excellent explanation of a program or project type and then has more limited information about the individual projects listed. This can be frustrating when using the project locator and expecting more detailed information on an individual project.

Opportunity: Colorado is very close to being a model state, but it seems likely that they could do better by utilizing the data systems that allow daily updated reports and GIS maps to provide Excel reports, making analysis easier. The state could likely also further improve upon its higher than average percent of projects with identified bicyclist and pedestrian facilities if it emphasized better descriptive information for individual projects, particularly describing facilities that are included in road projects. An innovative alternative to better descriptive information might be to link to bidding, construction, or other documentation for individual projects.

Analysis

What it is: Statistics and letter grades do not tell the entire story. This section provides state-specific context. For each state, the analysis section provides a rough idea of how the state's spending statistics compare to other states, whether there are any abnormalities that might affect the accuracy of the statistics, examples of noteworthy reporting practices within the state not captured neatly by our transparency criteria, and opportunities within the state based upon current state and/or MPO practices.

How to use: Gain a greater understanding of your state's STIP Score Card. It may answer questions or elicit new ones that are appropriate to ask your state transportation agency. While we do not recommend the use of our data for direct state-to-state comparisons, this section gives some comparative context that may be helpful.

8 23 USC 135(h)(1)(C)

PART IV: Transparency Recommendations for Transportation Agencies

As we counted, coded and calculated bicycling and walking projects by count and cost, we also evaluated each state's STIP for 10 specific transparency criteria. The criteria were developed to address how states can improve their STIP reporting so citizens can better find, understand and evaluate planned transportation investments.

This section highlights good, bad and noteworthy practices in the presentation of planning information and provides suggestions to improve STIPs. More information about our transparency criteria can be found in "PART II: Data Transparency" on page 21 and in the "Appendix" on page 53.

Description Clarity Practices

Spotlight on the states with the best narrative information

Four states – Alaska, Colorado, Maine, and Washington – earned the maximum points available for our criteria on Quality Narrative Information. This section looks at their project descriptions and why they scored well. Scoring this section is more of an art than a science and there may be states that produced information similar to what was produced by these states but did not score as well. The three primary reasons that it is difficult to quantify and objectively measure how well projects are described are:

1. **There is no national standard on how to describe projects.** Project descriptions vary considerably by each state. Generally, states provide their project descriptions in two manners: (1) a narrative-like project description that contains most of the information that describes the project; or (2) project codes and work types that contain information that describe particular project characteristics. Some states combine both approaches.

2. **It is difficult to measure the use (or the non-use) of abbreviations, alphanumeric codes, or other difficult-to-understand descriptors.**

3. **It is difficult to consistently measure description length.** It is difficult to quantify the length of descriptions in PDF documents without document review software or significant data entry. Descriptive information can be found in multiple data fields for many projects – making it difficult to aggregate data in a consistent and justifiable manner.

How do states currently write good descriptions?

Alaska: Easy-to-understand and longer descriptions

Alaska did not have a uniform format for all MPOs and other entities that receive federal transportation funding in the state. The points were earned on the relative strength of the Alaska DOT STIP document, particularly the three data fields with good descriptive information:

- **Project Name:** The project name was usually short, but written in plain English and without many codes or abbreviations. This makes each project easy for citizens to reference because the name is short and descriptive. This field led 30 identified projects according to our search terms.
- **Primary Work:** The primary work field generally contained one or two words to explain the work type, such as "reconstruction" or "safety." This field allows simple categorization of projects, but on its own, does not provide too much information on a project. For example, the "safety" work type included funding for a Safe Routes to School Coordinator, planning activities, intersection improvements, and passing lanes, among other projects. This field led 6 identified bicycling and walking projects according to our search terms.
- **Description:** The description field contained longer than average descriptions. The average description contained slightly more than 256 characters. This equates to around 43 words, or two to three sentences. These longer descriptions are written in plain English and without many codes or abbreviations, therefore making it easier to understand the reported projects. Longer descriptions also made it more likely that project components are described, which resulted in finding more bicycling and walking facilities. This field led to 86 identified projects according our search terms – far more than any other data field.

Alaska: Example of a Bridge Project that Includes Bicycling and Walking Facilities

Need ID: 25476 **Name:** Riley Creek Bridge Replacement and Access Improvements							**Ph**	**Fund**	**FFY 12**	**FFY 13**	**FFY 14**	**FFY 15**	**After 2015**
Program	**Region**	**Borough**	**Place Name**	**Highway**	**Primary Work**	**Bridge #s**	4	AC	0	0	13,645,500	0	
NHS	N	Denali Borough	Denali National Park	Parks Highway	Bridge Replacement	695	4	ACC	0	0	0	-13,645,500	
Description: Replace the Riley Creek Bridge #0695 located on the Parks Highway MP 237. Construct auxiliary lane(s) for Denali National Park entrance at MP 237, a parking area accessible to Riley Creek, and bicycle and pedestrian facilities crossing Riley Creek.							4	BR	0	0	0	8,975,500	
							4	NHS	0	0	0	3,736,000	
							4	SM	0	0	1,354,500	0	
							4	TE	0	0	0	934,000	
								Totals:	0	0	15,000,000	0	0

It is worth noting that the Alaska DOT STIP document was available in Excel format, but the spreadsheet contained data as reproduced above. This data was difficult to work with because it does not allow sorting and other analysis. To conduct the analysis for this report, the Excel data provided by the DOT was reformatted into a single row for each project, which enabled sorting and other analysis.

Colorado: Detailed descriptions for both individual and pooled projects

Colorado earned all of the points for Narrative Information available because the STIP document included good descriptions for individual projects and provided additional information on pooled projects. While the treatment of pooled projects did not provide much information on each project within the pool, it provided enough additional information that some bicycling and walking facilities and projects could be found that would not have been identified or described if the pool was the only thing reported. Unpooled, individual projects, generally had longer descriptions, but there was a lot of variability in the quality of descriptions. The only format available was PDF, so analysis of the average project description length was not possible without considerable investment in document review software or time in data entry.

Colorado: Example Descriptions for Individual and Pooled Projects

INDIVIDUAL PROJECT	POOLED PROJECT
Project Name: US36: 120th Avenue Connection (SafeTEA LU demos 37, 68, 100)	**Pool Name:** DRCOG STP-Metro Pool - R4 **Pool Sub-Project Name:** Broadway: Euclid Ave. Bike/Ped Underpass
Project Description: Project constructs a six lane connection between State Highway 128 and 120th Avenue going over US-36 and under the BNSF railroad. The project includes four-foot wide on-street bike lanes and six-foot wide sidewalks. It includes provision of raised medians, access control/consolidation, left-turn lanes at signalized intersections, bus pads (if appropriate), bike racks, and signal interconnection. Committed funding constructs Phase 1, Wadsworth to Allison, and initiates ROW for Phase 2, Allison to 120th Ave. Demo Ids 037, 068 & 100	**Pool Description:** The STP-Metro STIP Pool consists of a wide range of transportation-related activities that include studies, construction and transportation program support. These projects or programs are generally smaller, without a major impact on capacity, the environment and are non-controversial. Work elements include Environmental, Design, Utilities, Right-of-Way, Construction or Miscellaneous.

The two data fields that were particularly helpful were the project name, which was not in a defined field, and the project description, which existed for each project pool and individual project only. Funding programs sometimes provided additional information.

Maine: Comprehensive data available (if requested)

Maine is an interesting case because its publicly available STIP document is not that exceptional. However, Maine earned all of the points available for Quality Narrative Information because DOT personnel were able to provide a Microsoft Excel document upon request that provided significantly more information. Making this higher-quality data publicly available would help the citizens of Maine better understand their state's transportation priorities. Our Open Data score for Maine reflects the fact that we had to ask in order to receive the state's high quality Excel document.

Maine: A Sample Project from Both the Publicly Available PDF and Requested Microsoft Excel STIP

Data from the publicly available PDF version:

017514.11	STP-1751(411)X	High Visibility Pedestrian Crossings: Beginning at Park Street and extending northerly 0.45 of a mile to Rankin Street.	Federal	$22,300	$21,760	$540	$0	$0	$0
			State	$2,700	$2,640	$60	$0	$0	$0
			Totals:	**$25,000**	**$24,400**	**$600**	**$0**	**$0**	**$0**
Town(s): Rockland **Rte/Road:** High visibility,ped Xings **Length:** 0.45		**FFC:** Principal Arterial	**Stages:**	○ PE	○ Env./NEPA	○ Final Design	○ ROW		
				● Con/CE	○ Other	○ Planning			

Data from the requested Microsoft Excel version:

Bike/ Ped Related	TYPE	Program	Title	Length	Asset	Description	Federal Functional Class	Scope	Lead Unit
	Traffic Engineering	Traffic Engineering	ROCKLAND: ROUTE 1	0.45	High visibility, ped Xings	High Visibility Pedestrian Crossings: Beginning at Park Street and extending northerly 0.45 of a mile to Rankin Street.	Principal Arterial	Miscellaneous Safety Improvements	Traffic

Additional data for the same project was found in Excel version, which was not found in the publicly available PDF version.

The publicly available PDF had, at most, three data fields that might give descriptive information about a project and its components. The Excel document, on the other hand, had at least five data fields that gave descriptive information and 22 columns that contained data unrelated to project cost. Due to the sheer quantity of data in the Excel document, it is difficult to reproduce in this report. What is shown above is a version of the Excel data with columns that identify project phases, project locations, project numbers, and cost removed.

Looking at the Project Description alone shows that, on average, Maine describes projects in one or two sentences, or around 130 characters. In the publicly available PDF document, that data is the majority of the data that gives any sense of what is included in a project. In the Excel document the Project Description is supplemented by the Asset field, which

appears in the PDF as the “Rte/Road” field; and fields for a work type, program, scope, lead unit, title, and a field that says whether the project is “bike/ped related”. The “bike/ped related” field identified about 83% of the projects that were identified by our term search. Taken all together, these data fields provide a much better picture of what each project will look like than is provided by the Project Description alone.

Washington: Detailed, but coded, descriptions are publicly available

Washington state earned all of the point available for Quality Narrative Information because it has very good narrative project descriptions, and not because of any supplemental information provided. Like Maine, Washington DOT (WSDOT) personnel were able to produce an Excel document upon request, but unlike Maine, it did not provide significant new information. The strength of WSDOT’s Quality Narrative Information was the “Project Description” field, which averaged almost 283 characters, or nearly 3 sentences.

Washington: Sample Coded Project Listed in the STIP

MPO/RTPO: PSRC Y Inside N Outside **January 9, 2013**

County: King

Agency: King Co. DOT - Road Services

Func Cls	Project Number	PIN	STIP ID	Imp Type	Total Project Length	Environmental Type	RW Required	Begin Termini	End Termini	Total Est. Cost of Project	STIP Amend. No.
14	2201(006)		KGCO-118	21	0.110	CE	No	50' n/o NE 135th St.	510' n/o NE 137th St.	690,000	

100th Avenue NE Safety Improvement Project

Installation of concrete medians and turning bays to restrict left turns in and out of driveways to selected locations along 100th Avenue NE. There are two locations of road segment where this work would be done. These segments were identified as part of King County's High Accident Roadway Segment program analysis undertaken during 2003-2005. During this period, there were 13 recorded collisions along the 100th Avenue NE corridor. 100th Avenue NE has five lanes, including a center left turn lane and vehicles coming out of or into driveways are the predominant collision pattern.

The WSDOT STIP also has a coded Improvement Type ("Imp Type") for each project, but in order to understand that field, one must cross-reference the WSDOT STIP Training Manual and the 47 Improvement Type codes listed on pages 71 and 72. For citizens interested in bicycling and walking improvements, code 28 (Facilities for Pedestrians and Bicycles) and code 38 (Safety and Education for Pedestrian/ Bicyclists) are most important. However, the use of this type of coding is limited and less than one-third of the projects identified by our term search were coded for those improvement types.

Lessons from the states with the best narrative information

Provide more information

It's hard to say it strongly enough – **without more information, it is hard for citizens to engage with planned transportation projects – and more narrative information is needed in every state.** There is a lot of work done by agency staff and public involvement before each STIP is published and it seems reasonable to expect that more information is currently being generated than is being included in STIP documents. STIP documents are already long and complex, but the benefit of providing more information, which might allow the public to have a greater understanding of their state's transportation future, far outweighs the costs associated with larger documents, especially if the only change is incorporating data that is already being produced by other processes.

Supplement pooled/ grouped descriptions

Delivering smaller projects with federal transportation funds can be difficult. Many states and MPOs choose to present smaller projects in pools or groups according to their federal funding program. These projects may later be added to a STIP or a TIP through the amendment process. In states that produce regularly updated STIP documents or that provides project information through a database, that approach is not especially problematic. In other states, that approach leads to priorities among smaller projects being harder to see. While there should not be so many administrative burdens that smaller projects cannot be built, any information that sheds more light on the future projects within a state is appreciated and useful.

Do not rely on codes

The vast majority of STIP documents have data fields for codes like "work type," "improvement type" or various "yes/ no" fields that describe characteristics of a project. These data fields can be very useful because they allow project data to be parsed according to those data elements. However, this approach is ultimately limited and will result in more complex documents as available data increases. Efforts to limit complexity, like coding projects for "non-motorized enhancements" or "bike/ ped facilities," represent compromises in data. Codes can have their place, but will never be able to tell the entire story.

While narrative descriptions do not necessarily enable data to be parsed in the same way, they can play an important role in describing projects in terms that the public can understand and providing information that does not neatly fit into predetermined categories. This additional information can still be useful for analysis if data is made available in a spreadsheet format that allows analysis, with one row for each project.

Leverage other sources of information

According to the 2012 Benchmarking Report published by the Alliance for Biking and Walking, 27 states have adopted a master plan for biking, 25 have adopted a master plan for walking, and 33 have adopted a master plan for trails.[9] Despite this, it was exceedingly rare to find a project that mentioned its relationship to a multimodal or mode-specific master plan. More common were references, like ones in Baltimore's TIP, that said that certain projects "could serve to improve conditions for bicycling and/ or walking per approved local, regional and/ or statewide bicycle and pedestrian planning documents." While this type of reference was not always accompanied by facilities for people who bike or walk, or identification of where the relevant planning documents could be found, it serves an important purpose of raising the issue and making it easy for the public to understand the potential impact of modal master plans.

There are many other sources of information that can potentially be linked or incorporated into the STIP or web-based, project-centered database or map utilities. Potential sources of information can be found on "A Call for a Project-Centered Ecosystem of Planning Documents" on page 28. The Massachusetts Department of Transportation – Highway Division also attempts to integrate their project information database, further described on page "Focus On: Massachusetts" on page 43. By consistently using unique project identifiers and structuring data so that it can be parsed by machines, agencies may be able to dramatically increase the information available for any planned project in the future.

Based upon our review, the average reported project cost across all states is $9 million. The average STIP project is described in **one or two sentences** – often **fewer than 30 words**. Project descriptions should match the importance of investments being made.

General Recommendations for all states

Project descriptions should match the importance of the investments being made

Based upon the review of documents in this report, it is likely that the average project listed in a STIP is described with fewer than one or two sentences.[10] However, the average project cost across all states is almost $9 million, with a median average of a little more than $5 million. It seems hard to believe that one or two sentences, often fewer than 30 words, can provide a useful description of a project representing such an investment. This lack of information also

9 2012 Benchmarking Report, Alliance for Biking and Walking, p. 68.

10 Due to the variety of data produced by the states to comply with the federal requirement to publish a STIP it was extremely difficult to provide an estimate of the length of project descriptions in STIP documents. However, in Tri-State's Tracking State Dollars report they recommended at least 1 to 2 sentences per project description. In limited analysis of STIP documentation based upon the number of characters in project descriptions, it appears that most states do not meet that recommendation, while some states, such as Washington and California, likely exceed that recommended threshold. In that limited analysis, sentence estimates were based upon Wikipedia's estimate that six characters correspond to an average word and the Oxford Guide to Plain English's suggested sentence length of 15-20 words.

A Comparison of Word Counts

ITEM	SAMPLE TEXT	WORD COUNT
STIP Project Descriptions **Average Length:** Two or three sentences, typically fewer than 30 words per description	**Low Quality:** "SH 28, SALMON SB, SHARED USE PATHWAYS, PHS I" (Idaho)	» 1 sentence » 9 words » 44 characters with spaces
	Average Quality: "ARLINGTON- BIKEWAY CONNECTION AT INTERSECTION ROUTE 3 & ROUTE 60, MASSACHUSETTS AVENUE, PLEASANT STREET & MYSTIC STREET" (Massachusetts)	» 1 sentence » 17 words » 119 characters with spaces
	High Quality: "Replace the Riley Creek Bridge #0695 located on the Parks Highway MP 237. Construct auxiliary lane(s) for Denali National Park entrance at MP 237, a parking area accessible to Riley Creek, and bicycle and pedestrian facilities crossing Riley Creek." (Alaska)	» 2 sentences » 39 words » 248 characters with spaces
Twitter **Average Length:** One to two sentences, or about 15 words per tweet* **Maximum Length:** 140 characters (with spaces)	"It's out! Check our new report with @PeopleForBikes on the economic benefits of protected bike lanes. http://bit.ly/KiX9ho" (The Alliance for Biking & Walking)	» 2 sentences plus a link » 17 words » 122 characters with spaces
	"The 2014 National Bike Summit & Women's Forum program has been announced! #NBS14 http://bit.ly/1erdbPT pic.twitter.com/9RoOprxmK7" (League of American Bicyclists)	» 1 sentence plus hashtag, link and image » 15 words » 130 characters with spaces
Directions from a Tube of Toothpaste **Average Length:** Five sentences, or about 71 words per direction	"**Adults and children 2 years and older**. Apply toothpaste onto a soft bristle toothbrush. Brush thoroughly after meals or at least twice a day or as directed by a dentist or physician. **Children under 6 years:** To minimize swallowing, use a pea-sized amount and supervise brushing until good habits are established. **Children under 2 years:** Ask a dentist or physician. Store below 30ºC (86ºF)." (Generic toothpaste)	» 6 sentences » 64 words » 388 characters with spaces

*Average Twitter word count was obtained from the Oxford University Press.

likely falls short of representing the work that goes into each project before, during and after its inclusion in the STIP.

Without better project descriptions, or better linkages of project information created in other processes, it is very difficult to say whether projects are good investments and for the public to engage with the process. Performance-based programming will also require more information to be included about each project in the STIP to ensure that performance measures can be evaluated in the context of programming.

Plain English can be powerful and is the best way to describe projects in a way that will enable the public to understand a state's priorities. If a state believes it is best served by providing information with codes, terms of art, or the identification of particular elements rather than a narrative description here are some suggested elements to consider:

» Identification of the facilities that accommodate all users, as would be appropriate to document compliance with a Complete Streets policy. Twenty-seven states have Complete Street policies, according to the National Complete Streets Coalition.

» A cross-section description according to design guidelines expected to be used in the development of a project.

» The expected bicycle level of service or suitability (estimated average daily vehicle volume) effect of a project, or a similar performance metric for whatever modes will be affected by a project.

Provide complete information to leverage other processes and populate the STIP with useful and accurate descriptive information

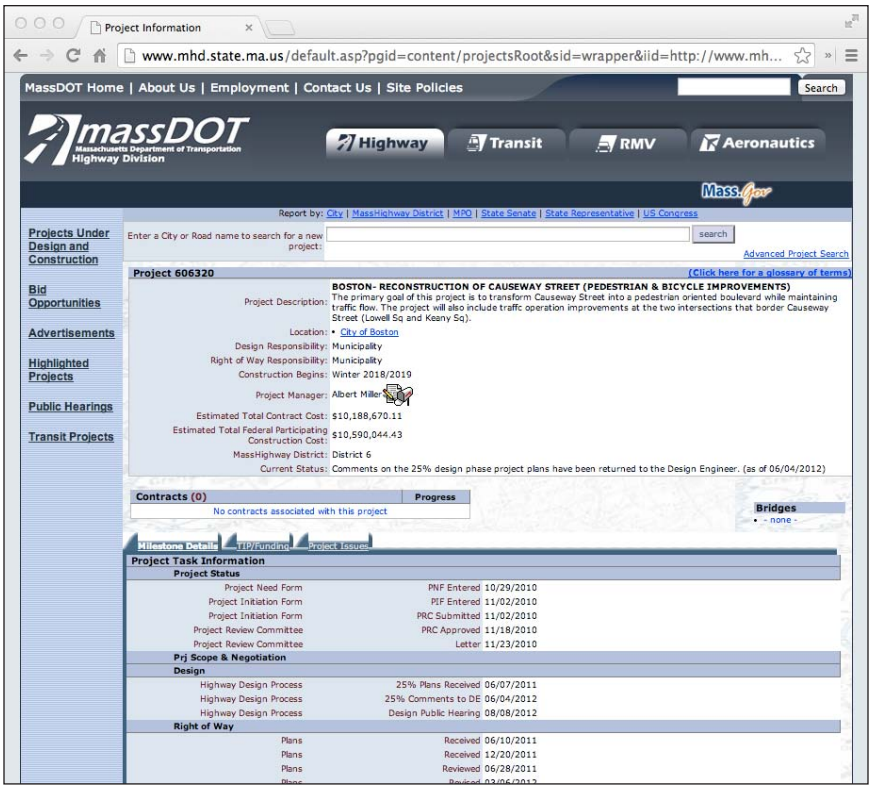
Description clarity relies upon the availability and quality of the information provided for each project. The Sunlight Foundation's Open Data Principle of Completeness can be a powerful concept when applied to what data should be available. The Principle of Completeness means that the data released by the government should be "as complete as possible, reflecting the entirety of what is recorded about a particular subject."[11] To provide complete project information, agencies should focus on linking and leveraging their processes to provide high quality information about each project. We recommend that agencies consider:

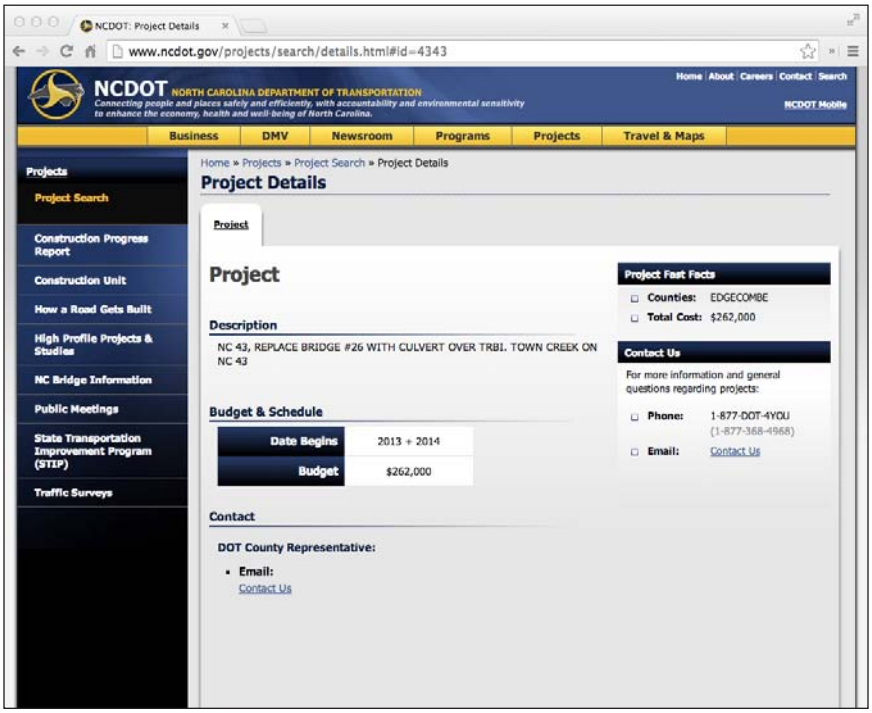
» **Creating a connected ecosystem of documents:** The STIP should not exist in a vacuum. Many sources of information – such as the Long-Range Transportation Program, letting documents, design documents, comprehensive plans, modal master plans, among others – that contribute to creating the projects that are listed in the STIP. These information sources should be viewed as assets and linked or otherwise used when describing projects in the STIP. While brevity is often appreciated, citizens deserve more than a few words to understand their transportation investments, especially when projects can cost several millions of dollars and affect transportation choices for decades.

» **Maintaining a dynamic STIP that incorporates information as it becomes available:** A dynamic STIP should make leveraging planning data easier since not all of these information sources will be available at the time of the creation or update of a STIP.

» **Ensuring unique project identifiers are used on all relevant documents:** Unique identifiers for each document are common, but in some instances a project can have different identifiers assigned by a state, a MPO, and the federal government. Better coordination on these unique identifiers would allow powerful data analysis across agencies.

11 The Sunlight Foundation, "Ten Principles for Opening Up Government Information," (2010) available at http://sunlightfoundation.com/policy/documents/ten-open-data-principles/.





Focus On: Massachusetts

The **Massachusetts Department of Transportation (MassDOT) Highway Division** has a project information database that incorporates information from a range of programs, processes and documents. The database provides a centralized report for each individual project that includes information on contracts, design, engineering, TIP funding and an assigned staff person for each project. Currently, there is still room for improvement in how these pieces fit together and some parts of the database seem unpopulated, but it is a dramatic step towards a more connected approach to project data.

Focus On: North Carolina

The **North Carolina Department of Transportation (NCDOT)** attempts to bring together its long and short-term planning through its "From Policy to Projects" initiative. It is commendable that the NCDOT is working to connect its processes to provide better information for its citizens. Unfortunately, this initiative does not seem to provide better information about projects. Project details that are available at the end of the Policy to Project process are not supplemented by later processes such as contracts, design and construction.

Good MPO Example: The **North Central Texas Council of Governments** for the metropolitan areas of Dallas-Fort Worth does a good job of providing supporting documentation. Supporting documentation included in the TIP

includes: project selection criteria; prioritization processes; methodologies for evaluating different project types; parties responsible for various program decisions; and policies regarding amendments and administrative modifications to the TIP. Download a PDF of the TIP at: http://www.nctcog.org/trans/tip/.

Common examples of parallel processes that could be leveraged

Several states had two or more parallel processes that include similar elements to the STIP. These common parallel processes include:

- **One process for projects implemented by the state DOT and one process for projects implemented by other agencies:** In some cases the parallel process seems to be distinct because it is focused on projects implemented by the state DOT, while the STIP process contains projects implemented by the state DOT and projects implemented by other agencies.
- **One process for certain "significant" projects and one process for other projects:** It is certainly understandable that very large projects deserve more resources so that citizens will be more likely to understand their impacts. Sometimes this takes the form of entirely different website. Other times it takes the form of databases or project lists that include supplementary information that should be available for all projects.
- **One process for planning and one process for bidding/ construction:** Several states had online bidding processes or construction databases that could provide supplementary information for projects. The information developed through these processes is not well integrated so that citizens can follow planned projects through these later processes.

Better integrating processes that occur before, after and during the STIP creation would create the possibility that better data would emerge and could be found.

Open Data Practices

Provide Useful Data

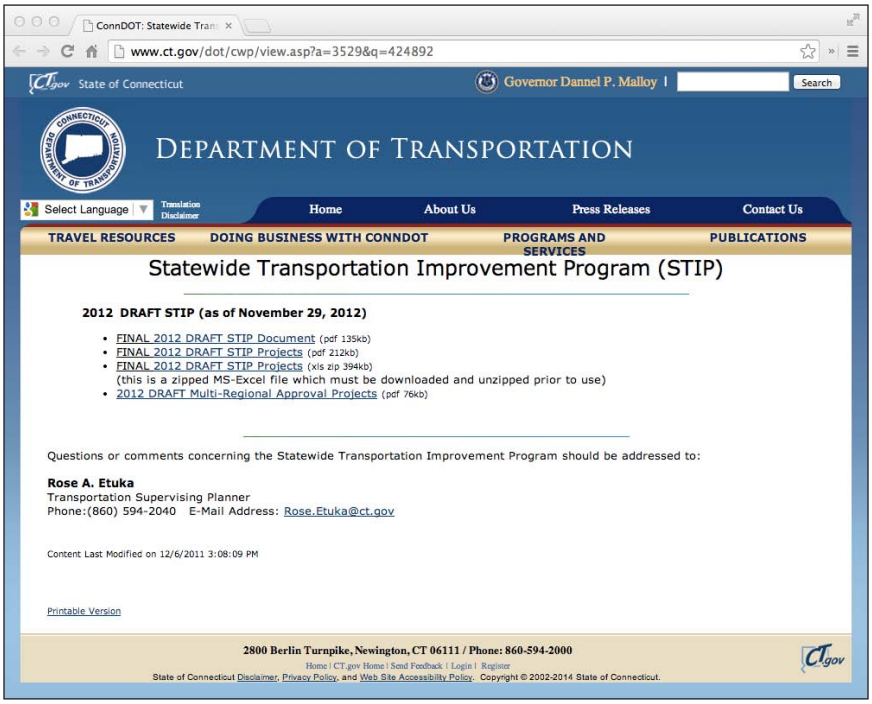
Due to the large quantity of data that is contained in the average STIP, spreadsheets are likely to provide the most interactive, accessible, and usable format to the public. When publishing documents in spreadsheets, like Microsoft Excel, we recommend that states and other agencies follow these practices:

- The spreadsheet document should include, at least, all information contained in the project list of the published STIP.

» The spreadsheet document should include all projects for the agency that creates it.

» The spreadsheet document should provide up-to-date information on the STIP, as amended or administratively modified, to the extent possible.

» The spreadsheet file may be compressed, especially if the state has problems with widespread access to high speed internet connections amongst its population.



Focus On: Connecticut

The **Connecticut Department of Transportation (ConnDOT)** provides their STIP project list in two formats: PDF and Excel. A single file for download makes it easier for users to get the entire picture of Connecticut's transportation priorities at the state and regional levels without having to download and compile TIP data from the 11 MPOs in the state.

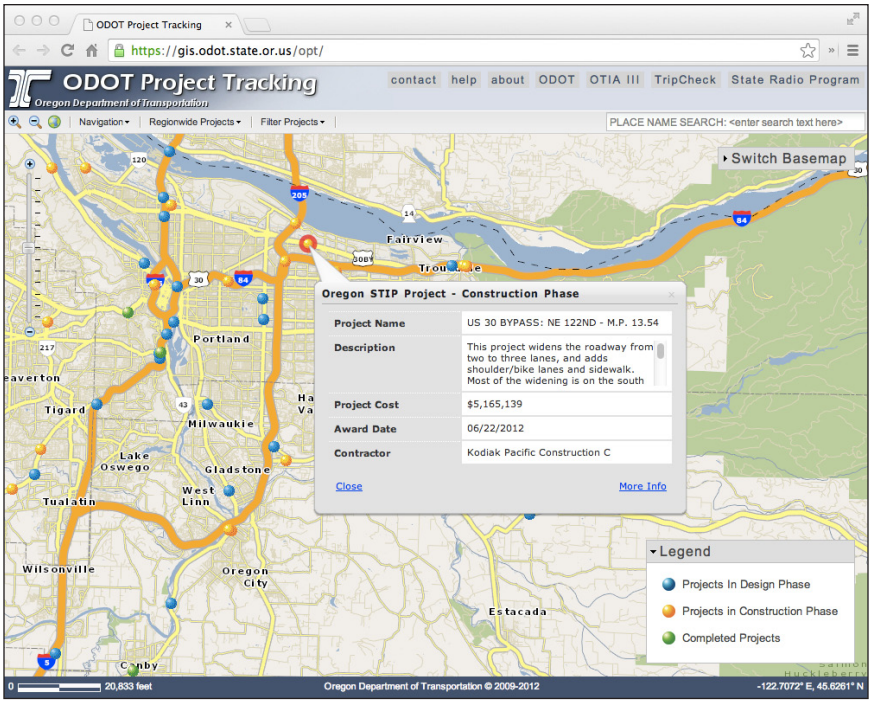
The Excel version is zipped to ensure that the file size is small and can be downloaded in a reasonable amount of time regardless of the user's internet access speeds. While zipped files may require a user to download additional software to open the original file, they may also be preferable to splitting larger files into many separate downloads. There are numerous free zip utilities available, providing a link to a utility would be a best practice if zipped files are used.

Use Interactive STIP Presentations

Interactive presentations of data can be engaging and appealing. The use of maps allows the public to engage with the complex data contained in the STIP visually and in a way that allows them to work with familiar geography. Searchable databases not only allow online interactions in the way that the public has become accustomed to finding information on the internet, but can also allow the export of information for more advanced analysis.

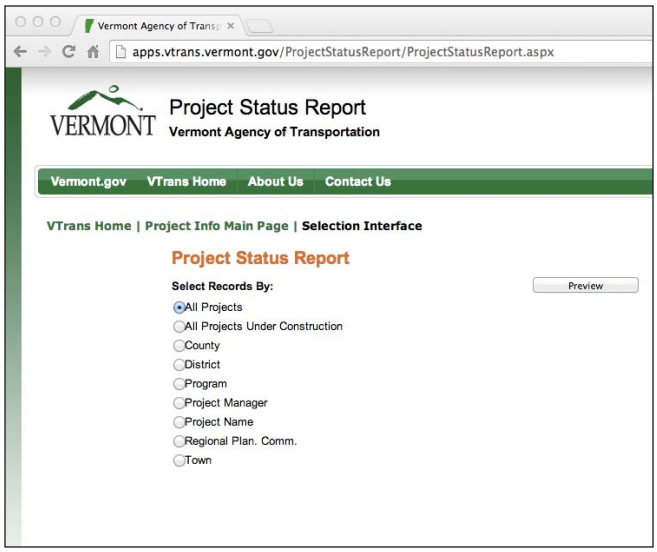
In the creation of an interactive database we recommend the following practices:

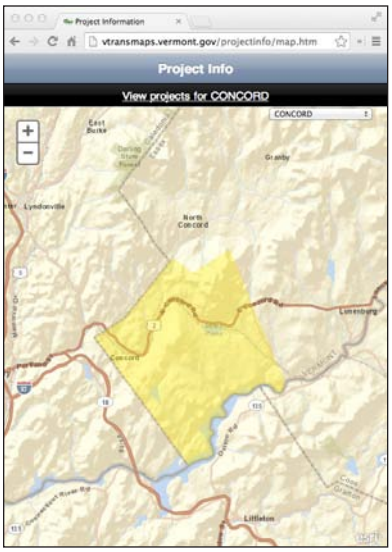
- **Allow a variety of search mechanisms,** such as selecting all projects by county, work type, or by projects planned to be built in a particular year; and to search via by specific terms or on a map.
- **Include a map, ideally GIS-based.** Visual presentation best practices do not seem well established and agencies should continue to experiment with visual ways to engage the public via innovative mapping practices. Pure GIS tracing can make it difficult to identify particular projects and may be confusing for citizens. GIS data layers are commonly used; we recommend a single layer as the default view to be more approachable than all layers at first view.
- **Include an export capability,** ideally of any list created by a user, not just pre-created reports. Any export of data should be possible in a variety of formats.
- **Do not require a login or otherwise restrict access to resources.** If a login is required, a public account login option should be available on the website and prominently displayed. Several states treated a request for a non-PDF format version of the STIP as an open records request, which can take longer to fulfill and may have associated costs.
- If there are multiple presentation techniques or processes they should be aggregated on one landing page.

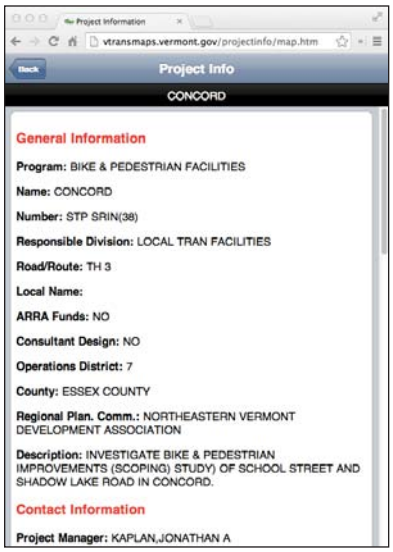


Focus On: Oregon

The **Oregon Department of Transportation (ODOT)** provides an interactive map that contains most of the projects in the STIP and explains the project types that are not included. The map is separate from the STIP website portal and does not provide for any export of the information contained in the tool. However, it does have good features that allow users to find data at multiple levels of detail.







Focus On: Vermont

The **Vermont Agency of Transportation's (VTrans)** database and mapping resources are an example of states trying new ways to present data. There is not always consistency in these approaches, but innovation should continue until best practices are established. VTrans provides two databases and three ways to navigate them:

» Two navigation options – the interactive project information map and the project status database – seem to draw from and produce the same project information data. Both contain more information than the STIP and include information on whether and how a project is listed in the STIP.

» The third navigation option, VTransparency, does not seem to include the same projects or information and is more limited. However, it appears optimized for mobile devices and it is great to see effort put forth into a format where an increasing number of people access online information.

Worthy of mention

Many of the State Score Cards highlight innovative presentation practices. Here are several particularly good examples:

» The **Chicago Metropolitan Agency for Planning (CMAP)** has an interactive pie chart that shows planned projects by the primary mode of transportation served.

» The **Nashville Area MPO** has an excellent interactive TIP database with an easy-to-use map and an online comment feature. Some of its notable features include:

- **A great variety of project searches, including:** by keyword, county, improvement type, funding source, phase of work, lead agency, program year,

TIP Project ID #, Tennessee Department of Transportation PIN #, and Federal Project ID, in addition to custom search criteria.

- **Exports in a great variety formats:** The project list is available for bulk or customized export in PDF, XLS, XLSX, RTF, MHT, Text, CSV, and various image formats.
- **Great interactivity:** There is a link to request alternative reports that are not available through the database, in addition to contact information for the Principal Transportation Planner.
- **Easy Summary information:** Totals for the number of projects and total funding are available without running a report.

» The **Pennsylvania Department of Transportation (PennDOT)** has included some very interesting visualization tools as part of their interactive STIP, including a video log of the area affected by a planned project.

Machine Readable Data

"Machine readability" is one of the Sunlight Foundation's Open Data Principles because of the power of computer aided analysis when data is made available in formats that computers can parse. That power was borne out in this project because documents that were in a Microsoft Excel compatible format or a PDF format that could be converted to Excel without the need for Optical Character Recognition (OCR) were much easier to work with and took significantly less time to analyze.

While there may be valid reasons to present parts of the STIP as images or with presentations that do not lend themselves to machine readable formats, the data dense project lists should be made available in a machine readable format to allow analysis of that data. An estimated 200,000 pages[1] were reviewed for this report, without computer-based data analysis tools this project would have been even more difficult and time consuming. The potential to leverage the data created in the STIP process to improve transportation planning and project delivery will only be realized when the data can be understood and analyzed by machines and people working together.

1 The documents reviewed for this report represented over 2 GB of data. This estimate is based upon the number of pages per GB of Microsoft Word, Microsoft Excel, and PDF format documents and the mix of documents reviewed. How Many Pages in a Gigabyte?, LexisNexis Discovery Services Fact Sheet.

Paper Trail Practices

Provide a one-stop resource for the STIP

One of the practices that contributes the most to a lack of understanding of planned federal transportation investments is the failure of the agencies that plan projects within a state to provide all of their information in one place. The practice of incorporating MPO TIPs "by reference" places the burden of compiling MPO TIP documents on the public, which is reasonably unwilling and unable to bear the burden of compiling information that federally

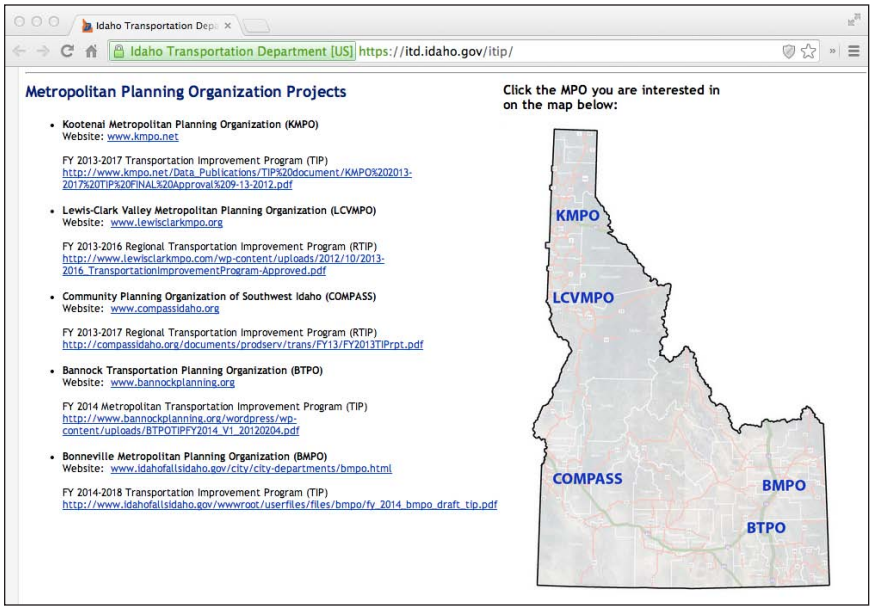
funded agencies have failed to coordinate. We recommend that states incorporate these documents directly and follow these practices:

Integrate MPO TIPs directly into one document that is called the STIP and hosted on the state DOT website.

- » If a state believes it is expedient to provide smaller documents to download or documents that are region-, mode- or funding-specific, then the state should provide a single download option in addition to those curated download options.
- » If a state cannot integrate MPO TIPs directly into one document due to administrative burdens, then the state and its associated MPOs should work to provide their respective data in compatible formats that are easy to aggregate and provide them all in the same place. An example of compatible formats would be spreadsheets that have certain common and uniform columns, but also have variable columns that allow them to report non-uniform data.

Provide easy access to MPO TIP information on the STIP website that allows citizens unfamiliar with MPOs to find the MPO that is of most interest to them.

- » The relationship between the STIP and MPOs should be explained so citizens understand the process and how the agencies and STIP/ TIP interact with one another. The full name of each MPO should be given and other information, such as a map or the names of cities and towns within each MPO's jurisdiction.
- » Links to each MPO's website or directly to each MPO TIP should be within one-click from the STIP landing page.
- » Ideally public outreach processes and comment periods for both the STIP and MPO TIP should be available in one location.

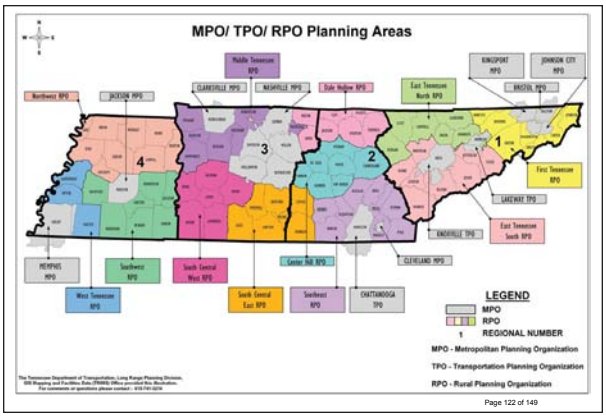


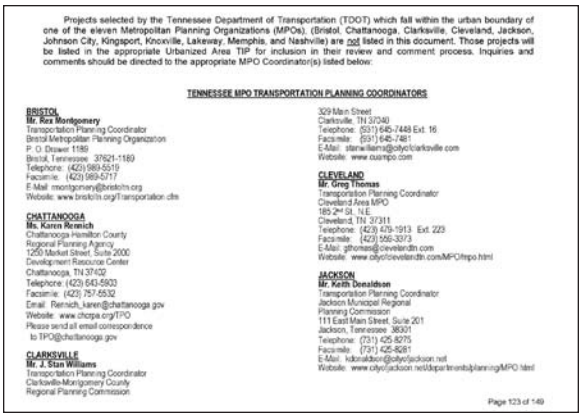
Focus On: Idaho

The **Idaho Department of Transportation (IDOT)** lists MPO information on the same webpage as the STIP. Links are provided to both the MPO home page and the MPO TIP document. A map is provided so that people unfamiliar with MPOs can easily identify MPOs in the state. It is also notable that IDOT refers to their STIP as a TIP, which might avoid any perception that it is a statewide document.

Focus On: Tennessee

Tennessee has some excellent MPOs and it is a shame that they are not better featured on the T**ennessee Department of Transportation (TDOT)** website. The TDOT and STIP websites do not link to or mention MPOs in Tennessee. The PDF version of the STIP provides a list of the MPOs with contact information for each. Hopefully in the future this information finds its way onto the website.




Projects selected by the Tennessee Department of Transportation (TDOT) which fall within the urban boundary of one of the eleven Metropolitan Planning Organizations (MPOs), (Bristol, Chattanooga, Clarksville, Cleveland, Jackson, Johnson City, Kingsport, Knoxville, Lakeway, Memphis, and Nashville) are not listed in this document. Those projects will be listed in the appropriate Urbanized Area TIP for inclusion in their review and comment process. Inquiries and comments should be directed to the appropriate MPO Coordinator(s) listed below:

TENNESSEE MPO TRANSPORTATION PLANNING COORDINATORS

BRISTOL
Mr. Rex Montgomery
Transportation Planning Coordinator
Bristol Metropolitan Planning Organization
P. O. Drawer 1189
Bristol, Tennessee 37621-1189
Telephone: (423) 989-5519
Facsimile: (423) 989-5717
E-Mail: montgomery@bristoltn.org
Website: www.bristoltn.org/Transportation.cfm

CHATTANOOGA
Ms. Karen Rennich
Chattanooga Hamilton County
Regional Planning Agency
1250 Market Street, Suite 2000
Development Resource Center
Chattanooga, TN 37402
Telephone: (423) 643-5903
Facsimile: (423) 757-5532
Email: Rennich_karen@chattanooga.gov
Website: www.chcrpa.org/TPO
Please send all email correspondence
to TPO@chattanooga.gov

CLARKSVILLE
Mr. J. Stan Williams
Transportation Planning Coordinator
Clarksville-Montgomery County
Regional Planning Commission
329 Main Street
Clarksville, TN 37040
Telephone: (931) 645-7448 Ext. 16
Facsimile: (931) 645-7481
E-Mail: stanwilliams@cityofclarksville.com
Website: www.cuampo.com

CLEVELAND
Mr. Greg Thomas
Transportation Planning Coordinator
Cleveland Area MPO
185 2nd St. N.E.
Cleveland, TN 37311
Telephone: (423) 479-1913 Ext. 223
Facsimile: (423) 559-3373
E-Mail: gthomas@clevelandtn.com
Website: www.cityofclevelandtn.com/MPO/mpo.html

JACKSON
Mr. Keith Donaldson
Transportation Planning Coordinator
Jackson Municipal Regional
Planning Commission
111 East Main Street, Suite 201
Jackson, Tennessee 38301
Telephone: (731) 425-8275
Facsimile: (731) 425-8281
E-Mail: kdonaldson@cityofjackson.net
Website: www.cityofjackson.net/departments/planning/MPO.html

Worthy of Mention

There are several places to look for MPO information if there is none provided by a state. Some of the better directories include:

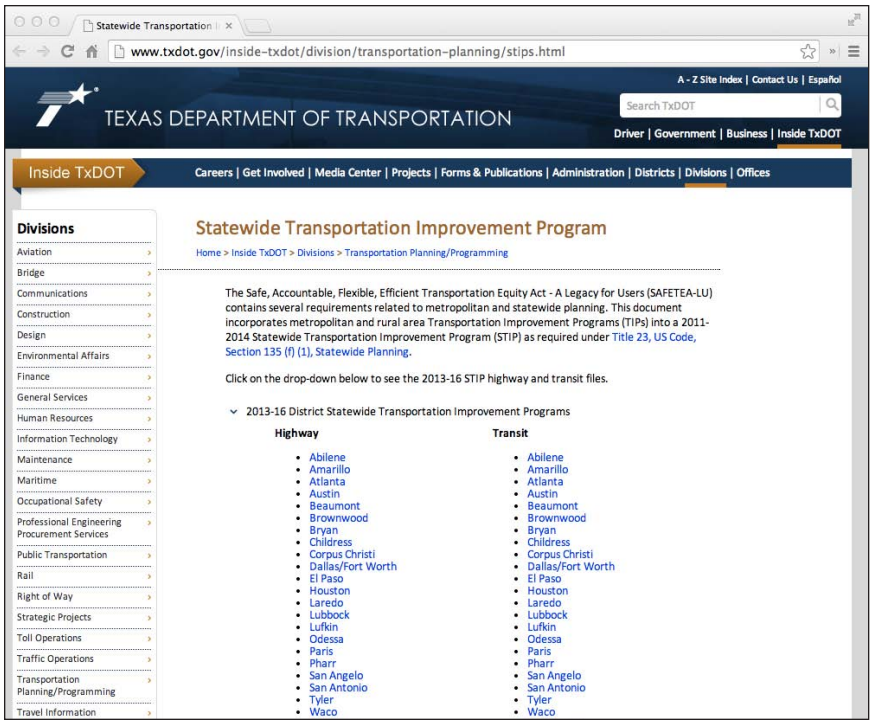
- » FHWA's Transportation Planning Capacity Building Program
- » Association of Metropolitan Planning Organizations
- » National Association of Regional Councils

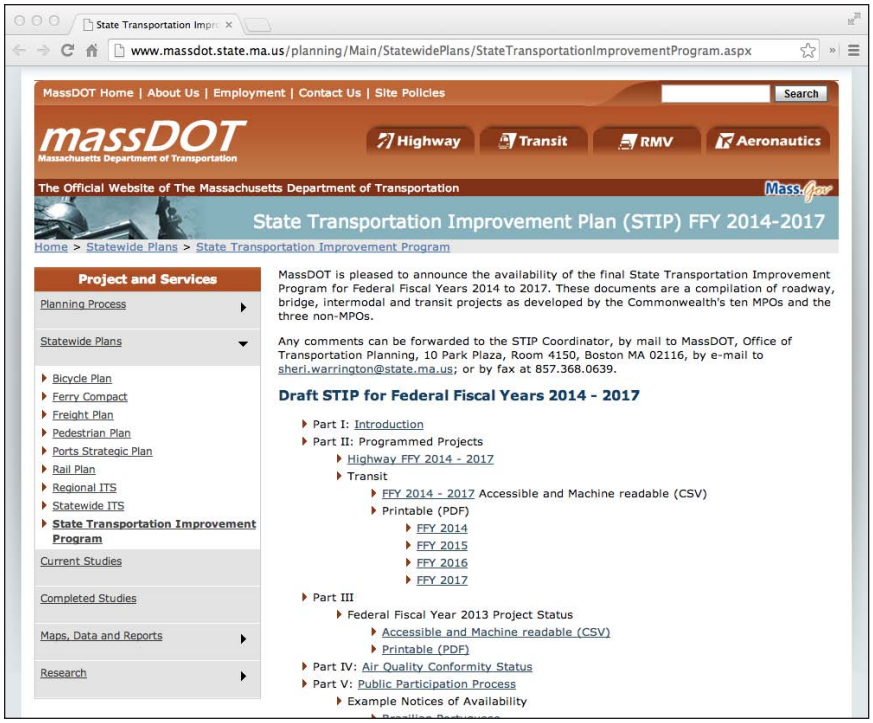
Providing a One-Click (Bulk) Download

It is an inconvenience to citizens to download and look at multiple documents in order to understand what is, in reality, one document. Several states seem to break up their document under the assumption that citizens do not have good internet access or speed. Unless there are technical reasons that a single document cannot be provided there should at least be an option to download the entire document at once.

Focus On: Texas

The **Texas Department of Transportation (TxDOT)** does a great service to its citizens by collecting all of the documents that comprise the STIP in one area. The STIP is presented by district with 24 individual districts and two PDF documents per district, not including





revisions or federally required information about the STIP. Together these 48 documents represent slightly less than 250 MB of data. According to a 2010 report from Speedmatters.org, the average download speed in Texas in 2010 was 3.9 MB per second, meaning it would take a little over a minute to download the entire STIP, if it were available as a single document, for the average Texan.

The documents listed separately by TxDOT do not have a common format. This separated and non-standardized data makes it harder to get a picture of Texas's transportation priorities at state and regional levels. Based upon conversations with TxDOT staff, they appear to be planning a move to a spreadsheet-based database system in the near future. They currently have an online database for their Unified Transportation Program, which is a document that links their long-range plan to the STIP.

Focus On: Massachusetts

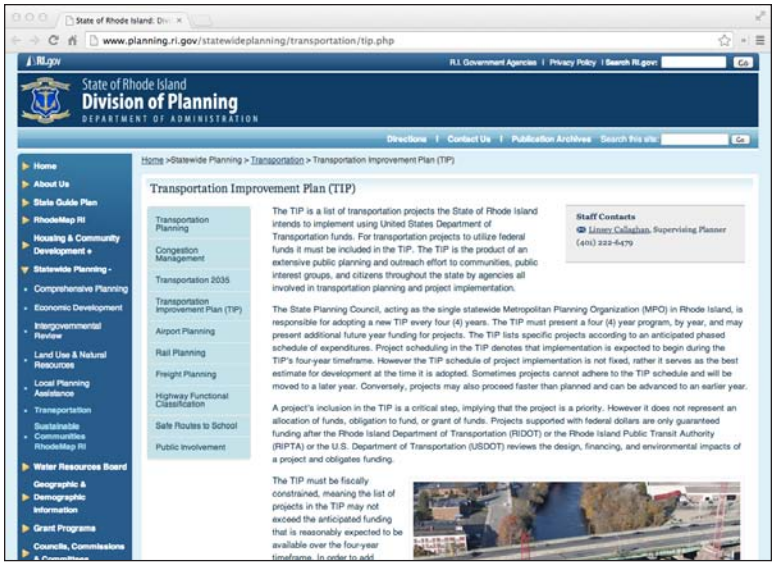
The **Massachusetts Department of Transportation (MassDOT)** compiles documents from the Commonwealth's 10 MPOs and three non-MPOs to create their STIP. The STIP is not presented as one document, but there is some effort to provide cohesive lists of projects – there is one PDF for all highway projects and one spreadsheet for all transit projects. While this is not ideal, the multiple formats may be a reason for the separated presentation.

Point of Contact Practices

Assign a contact person for the STIP and make their email available

The STIP is very rarely self-explanatory. Without a contact assigned, it can be difficult to know where to direct questions. To help the public understand where to ask questions and who is responsible for the creation of and programming contained in the STIP, we recommend:

- A person clearly assigned as responsible for the creation of the STIP document.
- Multiple ways to contact persons responsible for parts of the STIP, particularly through email and social media.
- An invitation to the public to submit comments on projects at any time through a dedicated channel.

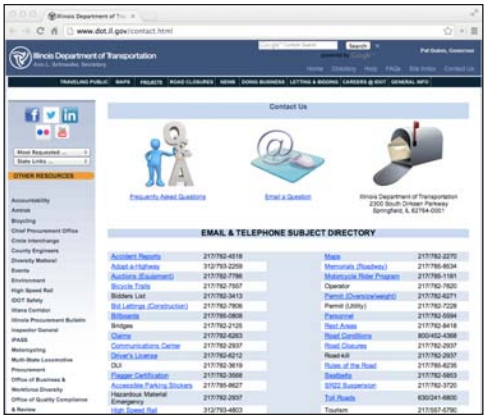


Focus On: Rhode Island

Rhode Island's Department of Administration, Division of Planning prominently features the contact information for the Supervising Planner for TIPs. The contact's email address and phone number are clearly labeled and prominently featured on the webpage.

Focus On: Illinois

The **Illinois Department of Transportation (IDOT)** website does not provide any contact information related to the STIP. There are contacts listed for certain subjects in the IDOT directory, but the department responsible for the STIP, "Planning and Programming," is not one of the subjects in the directory.



The STIP document does not provide an email address provided or a person responsible for the document. IDOT only invites public comments in writing or by phone.

Appendix

Data Sources for Each State

The following documents were gathered and used for each state's analysis.

STATE	DOCUMENT(S) USED
Alabama	An Excel version of the 2012 STIP covering projects planned from 10/1/2010 through 9/30/2015 downloaded on December 16, 2012.
Alaska	The Excel version of the 2012-2015 STIP and 3 TIPs, including Forest Highways
Arizona	An Excel version of the 2012 STIP downloaded on December 19, 2012
Arkansas	The Excel version of the 2013-2016 STIP and 8 MPO TIPs
California	A "MTC 2011 FTIP" and "2013 FTIP Report" generated by Caltrans staff on February 19, 2013
Colorado	A Daily Enhanced STIP Report generated on January 29, 2013. Total project count and cost estimates were obtained from CDOT staff.
Connecticut	The Excel document "Final 2012 Draft STIP Projects," available on the Connecticut DOT website
Delaware	The 2013-2018 CTP and 2 MPO TIPs
Florida	The Excel version of the "Statewide STIP" for 2013-2016 available on FDOT website
Georgia	The GDOT 2013-2016 STIP and 15 MPO TIPs
Hawaii	An Excel version of the 2011-2104 (+2) STIP including Revision 12, provided by HDOT staff
Idaho	An Excel version of the 2013-2017 ITIP provided by IDOT staff and 5 MPO TIPs
Illinois	The IDOT 2012-2015 STIP and 14 MPO TIPs
Indiana	An Excel version of the 2014-2017 STIP provided by INDOT staff and 14 MPO TIPs
Iowa	An Excel version of the 2013-2017 STIP provided by Iowa DOT staff
Kansas	The 2013-2016 STIP and 5 MPO TIPs
Kentucky	The Federal Projects Tracking Excel document prepared by KTC and 9 MPO TIPs
Louisiana	The 2013-2016 STIP, the Supplemental List of Projects Covered by Line Item available on the Louisiana DOT website, and 9 MPO TIPs
Maine	An Excel version of the 2012-2015 STIP provided by MaineDOT staff
Maryland	The 2013-2018 STIP and 6 MPO TIPs
Massachusetts	Parts II and III of the Draft STIP for Federal Fiscal Years 2014-2017, available on the Massachusetts DOT website
Michigan	A merged Excel document of the 2011-2014 STIP and MPO TIPs provided by MDOT staff
Minnesota	An Excel version of 2013-2016 STIP provided by MnDOT staff
Mississippi	The 2012-2015 STIP, available on the Mississippi DOT website
Missouri	The 2013-2017 STIP and 7 MPO TIPs

STATE	DOCUMENT(S) USED
Montana	The 2012-2016 STIP and 3 MPO TIPs
Nebraska	The 2012-2016 STIP, Supplemental Project lists available on the Nebraska DOT website, and 3 MPO TIPs
Nevada	The 2012-2015 STIP and 4 MPO TIPs
New Hampshire	The Excel version of the 2013-2016 STIP updated as of September 24, 2012
New Jersey	The 2012-2021 STIP available on the New Jersey DOT website
New Mexico	An Excel version of the 2012-2015 STIP provided by New Mexico DOT staff
New York	All Excel Project Lists available on the NYSDOT website, downloaded on February 1, 2013
North Carolina	The North Carolina DOT "Policy to Projects" document updated as of September 5, 2012
North Dakota	An Excel version of the 2013-2015 STIP provided by North Dakota DOT staff in March 2013
Ohio	An Excel version of the 2014 STIP Project Listing provided by Ohio DOT staff as of 08/28/2013
Oklahoma	An Excel version of the 2013-2016 STIP provided by Oklahoma DOT staff on March 29, 2013
Oregon	An Excel version of the 2012-2015 STIP downloaded January 25, 2013
Pennsylvania	An Excel document containing information from the TIP visualization tool on the PennDOT website provided by PennDOT staff on February 27, 2013
Rhode Island	An Excel version of the 2013-2016 STIP provided by Rhode Island DOT staff on March 11, 2013
South Carolina	The 2010-2015 STIP available on the South Carolina DOT website
South Dakota	An Excel version of the 2013-2017 STIP provided by South Dakota DOT staff on March 11, 2013
Tennessee	An Excel version of the 2011-2014 STIP provided by Tennessee DOT staff on April 29, 2013 and 11 MPO TIPs
Texas	The 2013-2016 STIP including revisions through December 2012 as provided on a CD by Texas DOT staff
Utah	An Excel version of the 2013-2016 STIP provided by Utah DOT staff on March 11, 2013
Vermont	The 2013-2016 STIP and the Chittenden County 2013-2016 TIP
Virginia	An Excel report from the Virginia DOT Six-Year Improvement Program generated on March 28, 2013
Washington	An Excel export of Washington's STIP created on February 19, 2013 by WSDOT staff.
West Virginia	An Excel version of the 2013-2018 STIP provided by West Virginia DOT staff on March 11, 2013
Wisconsin	An Excel version of the 2013-2016 STIP provided by Wisconsin DOT staff on April 28, 2013
Wyoming	An Excel version of the STIP for 2013-2015 provided by Wyoming DOT staff on March 14, 2013 and 2 MPO TIPs

Transparency Weighting and Criteria

Weighting

There were 22 points available under our 10 transparency criteria. The 10 criteria were grouped into four categories:

- **Description Clarity:** (1) Quality Narrative Information; (2) Federal Funding Sources are Identified; and (3) Bicycle and Pedestrian Identifier is Available.
- **Open Data:** (1) Excel is Publicly Available; and (2) Interactive Presentation.
- **Paper Trail:** (1) One Click Download is Available; (2) MPO TIPs are Easy to Find; and (3) MPO TIPs are Integrated.
- **Point of Contact:** (1) Assigned Contact; and (2) Email Available.

To calculate the grades each category was divided by the points available in that category to create a score out of a possible 1 point for each category. Based upon the feedback of advocates and our experience with all 50 state STIPs we gave additional weight to two criteria within their categories:

1. The score for the Narrative Information criteria was made to be 75% of the score for the Description Clarity category.
2. The score for TIP Integration was made to be 50% of the score for the Paper Trail category.

The best scoring state received less than 75% of the available points according to the scoring system described above. To create our grades we assigned weights to each category, based upon our experience. The Open Data and Description Clarity categories were given greater weight. We then assigned letter grades to create a roughly normal distribution of letter grades. Overall grades reflect the weighting that we applied to each category and therefore differ from a simple average of subcategory grades.

Description Clarity Criteria

CRITERIA	POINTS		DESCRIPTION
Quality Narrative Information	3	High Info	STIP generally contained narrative descriptions that identified relevant facilities and features for each project.
	2	Medium Info	STIP generally contained narrative descriptions, or other data, that provided incomplete or non-specific information on relevant facilities and features for each project.
	1	Low Info	STIP generally did not contain narrative descriptions, but contained minimal descriptions or relied upon non-specific descriptive codes.
Federal Funding Sources are Identified	2	Yes	STIP clearly identified the anticipated federal funding source(s) for each project.
	1	Unclear effort	STIP identified the anticipated federal funding source(s) for each project in a seemingly haphazard or incomplete manner.
	0	No identification	STIP generally did not identify the specific anticipated funding source(s) for each project.
Bicycle and Pedestrian Identifier is Available	2	Yes	STIP contained a field or consistent identifier for projects containing biking and walking facilities, and described those facilities when their inclusion was identified.
	1	No, but there's a work type or some other proxy	STIP contained some identifier for projects containing biking and walking facilities, but did not always describe facilities when their inclusion was identified.
	0	Not available	STIP did not specifically attempt to identify projects containing biking and walking facilities.

Open Data Criteria

CRITERIA	POINTS		DESCRIPTION
Excel is Publicly Available	2	Available publicly	Excel version of the STIP project list available on state website.
	1	Available by request or by proxy	Excel version of the STIP, or similar document, project list available after a request.
	0	Not available	No Excel version of the STIP project list available publicly or by request.
Interactive Presentation	2	Provides custom export of STIP data	Online STIP database can be searched (or queried) and exported.
	1	Limited reports and/ or map only	Online STIP can be queried, mapped, or sorted according to pre-determined criteria, but data cannot be exported.
	0	Not available	No STIP database available.

Paper Trail Criteria

CRITERIA	POINTS		DESCRIPTION
One Click Download is Available	3	Available and integrated	State provided a single document that contained all MPO TIPs or all projects contained in MPO TIPs.
	2	Available for STIP only	State provided STIP as a single document, but MPO TIPs were absent from that document.
	1	n/a	
	0	Not available	State did not provide STIP as a single document, but the STIP could be downloaded in 10 or fewer clicks.
	-1	More than 10 clicks	State did not provide STIP as a single document, and the STIP required 10 or more clicks to download.
MPO TIPs are Easy to Find	3	TIPs Integrated	State provided a document that contained all MPO TIPs or all projects contained in MPO TIPs, making links duplicative.
	2	Links on same page	State provided links to each MPO included in the State on the same page that hosts the STIP document.
	1	Minimal effort	State made some effort to provide links to MPO websites on its website or in the STIP document.
	0	No effort made	State did not provide links to MPO websites on its website or the STIP document.
MPO TIPs are Integrated	3	Available publicly	Publicly available document that contained all MPO TIPs or all projects contained in MPO TIPs.
	2	n/a	
	1	Available by request	Document obtained by request that contained all MPO TIPs or all projects contained in MPO TIPs after a request.
	0	Not available	No document that contained all MPO TIPs or all projects contained in MPO TIPs available.

Point of Contact Criteria

CRITERIA	POINTS		DESCRIPTION
Contact is Clearly Assigned	1	Contact available	A person or staff position was clearly assigned as the person or position responsible for the STIP (on the website or in the document).
	0	Not available	No person or staff position was clearly assigned as the person or position responsible for the STIP.
Contact Email is Available	1	Email available	The email address of the person or position responsible for the STIP was publicly available (on the website or in the document).
	0	Not available	No email address for the person or the position responsible for the STIP was publicly available.

Glossary

» **Complete Streets:** Streets designed for the safe access of all users, including pedestrians, bicyclists, motor vehicle drivers, and transit riders.

» **Construction Letting:** Opening of proposals for construction and maintenance contracts for transportation projects.

» **Design Guide/Design:** Each state is responsible for adopting design standards for roadways. Examples of bicycling design guidance include the American Association of State Highway and Transportation Officials (AASHTO) "Guide for the Development of Bicycle Facilities" (the "Green Book"), the National Association of City Transportation Officials (NACTO) "Urban Bikeway Design Guide," and state-specific volumes. States are free to adopt their own design policies and guidelines, or to accept an existing guide as written.

» **Federal Highway Administration (FHWA):** An agency within the U.S. Department of Transportation responsible for oversight of Federal-aid Highway Program funds to ensure states using these funds adhere to federal project eligibility, contract administration, and construction standards.

» **Fiscal constraint (fiscally constrained):** The requirement that documents, such as Statewide Transportation Improvement Programs, contain sufficient financial information to demonstrate that projects can be implemented using committed, available, or "reasonably available" revenue sources.

» **Geographic Information Systems (GIS):** A computer program used to analyze and present geographical data.

» **Grouped Projects/ Expenditures:** Projects that are not considered to be of an appropriate scale for individual identification in a given program year may be grouped by function, geographic area, work type, funding source, or other criteria. In some cases individual projects that meet the criteria of a group may be added to the STIP at a later date as their scale becomes clearer. The funds associated with these groups may also be drawn down without projects appearing in the STIP.

» **Long-Range Transportation Plan (LRTP):** A document in each state, required by federal law, which lays out a plan for the development and implementation of its intermodal transportation system for at least the next 20 years.

» **Metropolitan Planning Organization (MPO):** A Metropolitan Planning Organization (MPO) is a planning entity designed to carry out the transportation planning process for urbanized areas with populations greater than 50,000. The area that a MPO covers is determined by an agreement between the MPO and the Governor of the state. A MPO is controlled by a policy board designated by local officials and the Governor of the state.

- **Modal Master Plans (Bicycle and/ or Pedestrian Master Plans):** Transportation planning documents which lay out a strategy for developing bicycle and/or pedestrian infrastructure in a community, designating and expanding routes, fostering safety, and promoting bicycling and/or walking as viable transportation options.

- **Moving Ahead For Progress in the 21st Century (MAP-21):** The Moving Ahead for Progress in the 21st Century Act, which authorizes states to spend federal dollars on surface transportation projects, like roads, bridges, transit, and bicycling and walking infrastructure. It is a two year law that went into effect on Oct. 1, 2013.

- **Performance Measures:** Use of statistical evidence to determine progress toward specific defined organizational objectives. MAP-21 requires states to set performance goals for planning, safety, highway conditions, congestion/system performance, and transit performance.

- **Statewide Transportation Improvement Program (STIP):** A multi-year document (minimum of 4 years) laying out the state's capital improvement program. It includes the regional and Rural Transportation Improvement Programs (TIPs), and contains all phases of transportation projects to be built during the time period.

  The projects listed in the STIP must have anticipated funding (fiscal constraint) and are prioritized by the state DOT, MPOs and other planning entities that are responsible for project creation. Transportation projects funded under title 23 U.S.C. (Highways) and title 49 U.S.C. Chapter 53 (Public Transportation) must be included in the STIP in order to be funded. A STIP document may be inclusive of project lists prepared by MPOs and other planning entities or may incorporate those projects by reference.

- **Transportation Improvement Program (TIP):** A capital improvement program developed cooperatively by local and state transportation agencies. It includes a list of transportation projects, including highway, transit, bicycling and walking projects. The projects must be consistent with a rural long-range plan or Metropolitan Planning Organization long-range plan.

  Transportation projects funded under title 23 U.S.C. (Highways) and title 49 U.S.C. Chapter 53 (Public Transportation) must be included in the TIP in order to be funded. When a TIP is incorporated into a STIP by reference then the projects in the TIP will not appear in the STIP.

Resources and References

» **Advocacy Advance, Key Data Sources: Federal Investments in Bicycling and Walking in Your Community,** http://www.advocacyadvance.org/resources

» **American Road & Transportation Builders Association,** FAQs, http://www.artba.org/faqs/#20

» **Bushell, Max; Poole, Bryan; Rodriguez, Daniel; Zegeer, Charles.** Costs for Pedestrian and Bicyclist Infrastructure Improvements: A Resource for Researchers, Engineers, Planners and the General Public (July, 2013), http://www.pedbikeinfo.org/data/library/details.cfm?id=4876

» **Code of Federal Regulations,** 23 CFR 450, http://www.ecfr.gov

» **Federal Highway Administration, Transportation Planning Capacity Building Program, The Transportation Planning Process: Key Issues,** http://www.planning.dot.gov/documents/briefingbook/bbook.htm

» **Smart Growth America,** Complete Streets Policy Atlas, http://www.smartgrowthamerica.org/complete-streets/changing-policy/complete-streets-atlas

» **Smart Growth America,** Measuring Performance, http://www.smartgrowthamerica.org/complete-streets/implementation/measuring-performance

» **The Sunlight Foundation,** Open Data Guidelines, http://sunlightfoundation.com/opendataguidelines/

» **The Sunlight Foundation,** Ten Principles for Opening Up Government Information, http://sunlightfoundation.com/policy/documents/ten-open-data-principles/

» **Tri-State Transportation Campaign,** Mobilizing the Region blog, http://blog.tstc.org/

» **Tri-State Transportation Campaign,** Tracking State Transportation Dollars, http://www.trackstatedollars.org/

» **United States Code,** 23 USC 135 and 150, http://uscode.house.gov/

DOT and MPO References

» **Association of Metropolitan Planning Organizations,** MPO Directory, http://www.ampo.org/about-us/mpo-directory/

» **Chicago Metropolitan Agency for Planning,** TIP Dashboard, http://www.cmap.illinois.gov/programs-and-resources/tip/tip-data/tip-dashboard

- **Connecticut Department of Transportation,** Statewide Transportation Improvement Program website, http://www.ct.gov/dot/cwp/view.asp?a=3529&q=424892
- **Federal Highway Administration's Transportation Planning Capacity Building Program,** Metropolitan Planning Organization (MPO) Database, http://www.planning.dot.gov/mpo.asp
- **Idaho Department of Transportation,** ITIP website, https://itd.idaho.gov/itip/
- **Illinois Department of Transportation,** STIP website, http://www.dot.il.gov/opp/stip0912.html
- **Illinois Department of Transportation,** Contact Us website, http://www.dot.il.gov/contact.html
- **Massachusetts Department of Transportation,** STIP website, http://www.massdot.state.ma.us/planning/Main/StatewidePlans/StateTransportationImprovementProgram.aspx
- **Massachusetts Department of Transportation - Highway Division,** Current Road Projects and Bridges, http://www.mhd.state.ma.us/default.asp?pgid=content/projectsRoot&sid=wrapper&iid=http://www.mhd.state.ma.us//ProjectInfo/
- **Nashville Area MPO,** TIP Database, http://maps.nashville.gov/MPO_TIPApp_1417/
- **National Association of Regional Councils,** Listing of COGs and MPOs, http://narc.org/resource-center/cogs-mpos/listing-of-cogs-and-mpos/
- **North Carolina Department of Transportation,** STIP website, https://connect.ncdot.gov/projects/planning/Pages/default.aspx
- **North Carolina Department of Transportation,** Find A Project, http://www.ncdot.gov/projects/
- **North Carolina Department of Transportation,** From Policy to Projects http://www.ncdot.gov/performance/reform/
- **North Central Texas Council of Governments,** TIP website, http://www.nctcog.org/trans/tip/
- **Oregon Department of Transportation,** ODOT Project Tracking, https://gis.odot.state.or.us/opt/
- **Pennsylvania Department of Transportation,** TIP Visualization, http://www.dot7.state.pa.us/tip_visualization/map.aspx
- **Rhode Island Department of Transportation,** STIP website, http://www.planning.ri.gov/statewideplanning/transportation/tip.php.

- **Speedmatters.org,** Texas Internet Speed Results http://www.speedmatters.org/content/states/category/texas
- **Tennessee Department of Transportation,** STIP website, http://www.tdot.state.tn.us/programdev/
- **Texas Department of Transportation,** STIP website, http://www.txdot.gov/inside-txdot/division/transportation-planning/stips.html
- **Vermont Agency of Transportation,** Infrastructure Projects, http://vtrans.vermont.gov/infrastructure-projects