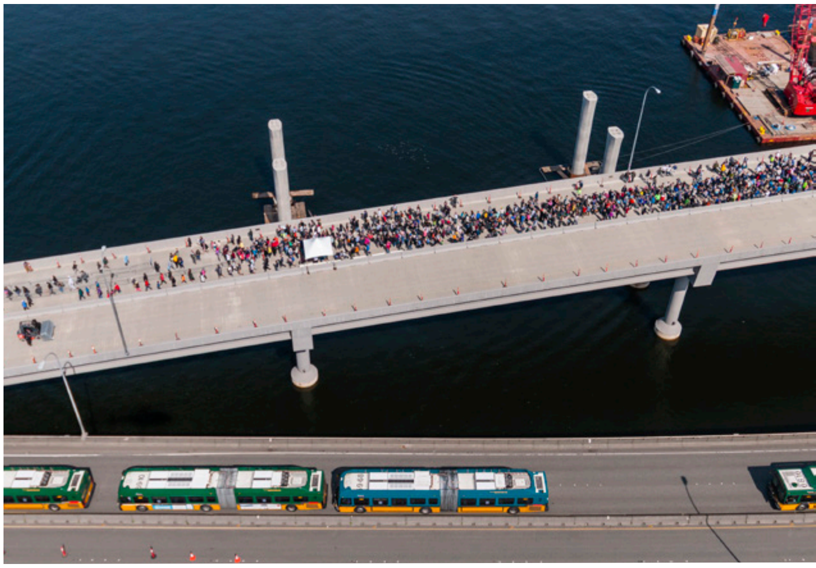
# Transportation Innovations That Save States Money and Attract Talent



A guide to innovative transportation policies for governors and their executive teams

Transportation for America

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Release date: December 2016.

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**Transportation for America** is an alliance of elected, business and civic leaders from communities across the country, united to ensure that states and the federal government step up to invest in smart, homegrown, locally-driven transportation solutions — because these are the investments that hold the key to our future economic prosperity.
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Whether your administration has just won an election or is in the midst of a term, voters have entrusted you with creating quality jobs and shared prosperity while running an efficient government that gets the greatest benefit from every taxpayer dollar.

## Your state's transportation programs and policy have a vital role in this mission.

States' transportation priorities and policies no longer match today's economic reality in which building unique, quality places and attracting talent are paramount. Rather than supporting communities with tailored, multimodal transportation solutions to efficiently move people and goods, most state transportation programs remain narrowly focused on major highway projects that strain budgets but fail to build long-term prosperity. This guidebook serves administrative staff focused on transportation, economic and community development, health, and safety. It demonstrates the many reasons why transportation policy needs to be changed and how administrative action can refocus these transportation programs to support broader policy goals.

While the majority of a state budget falls into education, safety, health and human services, transportation will play a key role for your administration. It can make or break your administration in your goals of attracting and creating jobs and building healthy and safe communities. Transportation failures — like excessive time that people and freight are stuck in traffic, decreasing air quality, flawed implementation of mega-projects, or the perceived and real inefficiencies of government bureaucracy — will be a drag on your administration. This guide offers best practices to help you achieve greater benefits and avoid costly pitfalls in your state's transportation program.

## The recipe for successful local and regional economic development has changed.

In the past, economic development was focused on recruiting and luring large employers and expecting new workers to follow the jobs. But younger workers are choosing where to live and then looking for jobs. Economic development now depends on building great places that draw and anchor talent. Quality of life, vibrant communities, and transportation choices are no longer simply nice add-ons, they are essential to economic growth and prosperity in communities large and small within your state. And employers are making the same shift to stay competitive, seeking communities with these features precisely because they attract talented workers.

Yet state transportation policies and bureaucratic practices often fail to provide the infrastructure that helps create the kinds of places that businesses now seek, while instead continuing to offer transportation strategies more suited to solving yesterday's problems. State policymakers need to change the focus of transportation spending in order to realize the full potential from these investments.


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# WHAT SUCCESS CAN LOOK LIKE

Under leadership of the past two gubernatorial administrations — one Democratic, one Republican — Massachusetts has focused state investments on improving public transit, repairing critical infrastructure and developing walkable communities. As a result, the state has seen impressive economic development success.

Massachusetts' strategy won a major endorsement when, in 2016, General Electric announced it would relocate its corporate headquarters from suburban Fairfield, CT, to the Seaport neighborhood in Boston. GE reportedly turned down sizable tax-incentive offers from other states and chose, instead, to locate in a walkable and transit-served location where the company could draw educated younger workers. GE CEO Jeffrey Immelt said that in Boston, GE found "an ecosystem that shares our aspirations."[1] GE was just one of dozens of companies that have located to town or city centers in Massachusetts in recent years, as chronicled by Smart Growth America's Core Values research.[2] Boston and adjacent cities like Cambridge and Somerville are booming and are magnets for educated, young workers.

Over the past two gubernatorial administrations the state has invested in these walkable communities that anchor a talented workforce and foster economic development.

Former Governor Deval Patrick's (D) administration championed new funding for transportation projects and inked an agreement that combined funding from the state, the federal government, and a private real estate developer to finance a new subway stop at Assembly Square. The station opened in 2014 and anchors a major mixed-use development that has transformed a former industrial site. The Patrick administration also advanced plans for an extension of the Green Line light rail service to more Somerville neighborhoods.

1 http://www.nytimes.com/2016/01/14/technology/ge-boston-headquarters.html
2 https://smartgrowthamerica.org/resources/core-values-why-american-companies-are-moving-downtown/

Though Governor Charlie Baker (R) won while running against future automatic increases to the state gas tax, he clearly understands that improving transit and investing in these walkable places was critical to the state's prosperity.[1]

To achieve this vision, he appointed Stephanie Pollack, a transportation expert and transit advocate, to run MassDOT, the state's department of transportation. While some in the state were surprised by his pick of a notable transit advocate to run MassDOT, Governor Baker and Secretary Pollack have a shared interest in reforming the state's transportation programs to ensure that transportation investments are connected to economic development goals. They're intent on measuring the results that are important for voters and taxpayers and holding the agency accountable for meeting them.

"Transportation is not important for what it is, it's important for what it does," Pollack frequently says.[2]

The Baker administration considered abandoning the Green Line project when faced with escalating costs. But the benefits of the project were too significant for the state to walk away. As Pollack has said, "The return on investment in transportation, whether it's the Green Line extension or another [project], is not just measured in how many people physically use it. It's also measured in improvements to the economy, decreases in people's commuting time, creation of new jobs and reduction in greenhouse gases."[3]

Instead, the state's largest transit agency, the MBTA, found ways to lower the expected costs by redesigning stations and is contracting new management for the project. While focusing intently on reforming MBTA, Baker sought workable plans in order to maintain the commitments that the commonwealth, under previous administrations, had made to communities.[4]

In order to achieve clear outcomes with transportation dollars, MassDOT began to implement a new, performance-based process to help select projects in which to invest. Evaluating the expected outcomes from every possible project helped the agency put together a capital plan that balances repair of critical infrastructure and further improvements to transit.

In addition to funding transit, MassDOT has also targeted funding specifically at making local streets better for walking and biking through an incentive-based complete streets program. A small investment of state funds leverages local funds to plan and build projects to make streets better for people traveling by foot and by bicycle. (See page 15 for more details.)

Massachusetts is seeing the economic returns from administrations that understood how tailored transportation investments could support walkable communities. The leadership and reform efforts under both Democratic and Republican administrations is paying off in the way the state attracts talented workers, draws relocating businesses, and creates quality jobs.

1 http://www.t4ma.org/baker-questionnaire/

2 http://braintree.wickedlocal.com/news/20160719/braintree-mayor-sullivan-previews-report-on-south-shore-transportation-priorities

3 http://www.governing.com/topics/transportation-infrastructure/gov-massachusetts-transit-stephanie-pollack.html

4 http://commonwealthmagazine.org/transportation/baker-defends-mbta-expansion-efforts/


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# HOW STATE TRANSPORTATION POLICY FALLS SHORT

Why do current state-level transportation policies and investments fail to create the economically vibrant communities people want and to which businesses are moving?

## #1: Transportation planning is isolated from development and other infrastructure investment decisions.

States can't achieve the biggest benefit from major highway or transit projects without considering other infrastructure in those corridors, aligning economic development programs and incentives, considering public health impacts, or coordinating with local governments to plan the best land uses. Yet it is rare for transportation planners to work directly with other departments or other levels of government to maximize the benefits from transportation projects. When transportation, economic development, housing, broadband and other investment are coordinated, those investments are magnified. It is only through this coordination that transportation projects will help to create the sort of communities in which people want to live and spend their time.

## #2: Transportation programs focus on building highways rather than a unified, holistic system

Partially because of their historic role in building the nation's interstate highway system, state transportation programs focus largely on building, maintaining and expanding state highways. While this is still a vital function for some states, it serves only a fraction of the transportation needs that residents and businesses have. Transportation programs should plan for and fund all modes of travel and focus limited dollars on cost-effective solutions which support the most efficient movement of people and goods, including public transit, transportation demand management, passenger rail and operational improvements to highways.

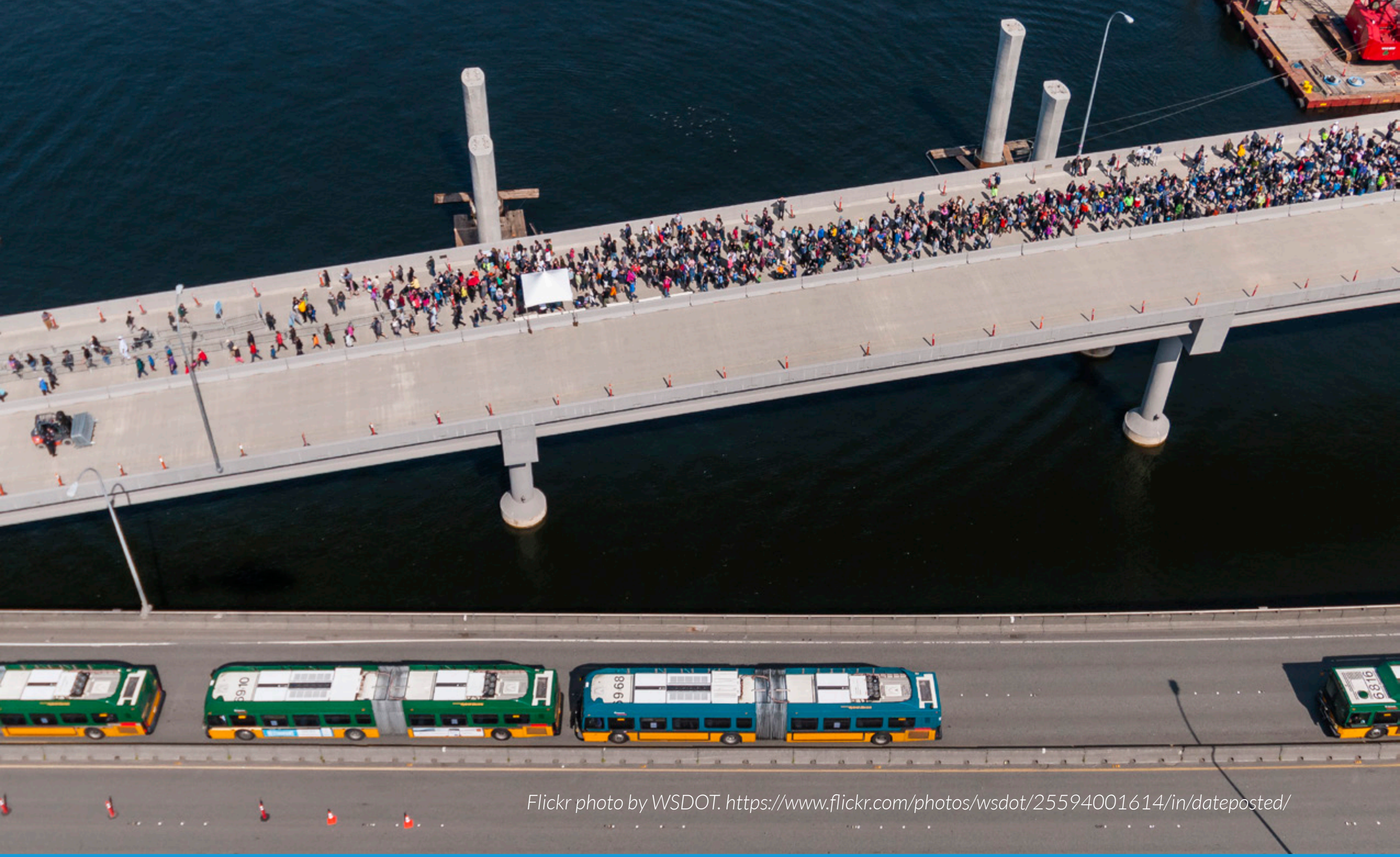
## #3: The system is set up to overbuild rather than find efficient solutions

Even within the state's highway programs, there is too much emphasis on major new projects and often too little attention paid to making the entire network and system work more efficiently. The explosive cost of these projects siphons off all funding that would be available for other needed investments across the state.

## #4: There will never be enough money

For decades, funding transportation projects was a relatively easy task for state governments. The federal government was a generous partner and gas taxes, the primary revenue mechanism, brought in ever more funds. That has changed dramatically and transportation now faces a historic funding crisis. Increasing construction costs and decreasing fuel tax receipts have states in a bind. Even states that have recently raised new funding for transportation still face long-term shortfalls. And no matter how much revenue comes in, there is never enough to pay for every want, need or desire across the state.

Recent experience across the country has shown that taxpayers are willing to pay more to invest in transportation — but only if they have faith that money will be well spent and will address the most important needs.

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# THE STATE'S POWER TO SHAPE TRANSPORTATION POLICY

The good news is that state leadership has broad power to reform and align the program to the changing needs of your state.

State policy plays an outsized role in choosing where and what types of transportation projects are built. The federal government annually hands your state hundreds of millions of dollars in transportation grants with few strings attached, and state agencies own and operate much of the state's transportation network. Often, legislators and local leaders will grant the administration flexibility, so long as you deliver on local needs. Your administration, therefore, has the power to direct your state's transportation program to deliver the projects and services — and the economic foundation — that voters demand.

Across the country, some state administrations are beginning to see the importance of transportation policy and are changing the ways transportation programs are run. Below are two basic recommendations for how to refocus transportation policy, derived from the experiences of other states. The rest of this brief draws more detailed examples from those states and serves as a guide to making real change that will allow you to deliver on voters' needs and make the most of state investments in transportation.

## Set clear direction and goals for state transportation agencies

Too often, transportation agencies go unnoticed by administrations until there is a crisis. This is a mistake. **Transportation is critical to accomplishing many of your goals, and you should give your transportation department clear direction on expected outcomes and policy priorities**.

Transportation goals should extend well beyond simply delivering projects on time and under budget. The federal government is asking states to measure the reliability of residents' commutes and the reduction of deaths and injuries caused by crashes on the roads. Some states are going even further, looking at the extent to which the transportation system provides people with access to work, school and other necessities by all modes of travel.

Transportation is a means to an end — not an end in and of itself. With clear direction from the governor's office about the goals of the state transportation program, your transportation department can organize its programs and investments around those goals and report to the public on its progress.

## Pick the right people who can lead

Getting the most out of the transportation program begins with leadership in the governor's office and in the department of transportation (and, if applicable, the transportation commission that oversees your DOT) who can press for and implement reform. Pick leaders who understand the program, are motivated to make change, able to navigate politics inside and outside the agency, and who share your vision for transportation outcomes.

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# PROBLEMS AND SOLUTIONS

The rest of this brief identifies specific challenges your state's transportation program may be facing and identifies specific policy and programmatic changes with a track record of success; tactics that other states have used successfully to solve these problems.

## PROBLEM #1: OUTDATED TRANSPORTATION PROGRAMS SPEND MONEY ON THE WRONG PROJECTS

Not all transportation projects offer the same benefits. Projects can be optimized and their benefits evaluated and weighed in order to pick the projects with the largest return on investment. Too often projects are built simply because they have been on a list for many years without consideration of whether the problem that the project was designed to solve could be solved another way, or even still exists. In a time of increasingly constrained funding, the state must focus spending on the most effective solutions.

### Solution: Use performance measures to evaluate and pick projects

Burdened with a long list of planned projects, some of which were no longer adequate for promoting economic development or addressing congestion, Virginia developed a new, objective process for ranking and picking transportation projects across the state. The evaluation process, named Smart Scale, scores projects on factors like congestion reduction, economic development benefit, and safety, and prioritizes the projects that will offer the greatest return on the state's investment. Massachusetts, Louisiana, and Maryland have also recently adopted new programs to measure the benefits of planned projects and prioritize state investments.

## Solution: Deliver more cost-effective solutions, more quickly, through practical design

Practical design is a new approach that focuses on cost-effective transportation solutions and engages the local community to scope and design projects that match local needs and plans. Building to a scale that meets the community need and context saves money and results in better projects.

A legislative study in Washington found that the vast majority of transportation cost was driven by the cost of land, natural resources and labor. In other words, project scale and size were the primary cost drivers. It is easy for costs to spiral on any project when planning considers only the individual projects, rather than cost-effective solutions across the entire transportation system. When the Washington State Department of Transportation began screening and redesigning planned projects, the department reduced costs by 15 percent.

A new administration in Tennessee faced a project list that totaled nine times the available state funding. The transportation commissioner launched an audit of the planned projects and challenged planners to "rightsize" the long-planned projects — re-scoping their designs to realize most of the benefits at a fraction of the cost. After reviewing just the first five projects, TDOT found savings of over $171 million through right-sizing the scope of work. In just one project in Jackson County, TDOT was able to reduce the overall cost from an estimated $65 million to just $340,000 while still achieving nearly the same safety and efficiency outcomes. With a similar approach, Missouri DOT found savings of $100 million per year after implementing practical design.  Cost savings from redesigned projects allowed these administrations to fund more projects, moving ahead timelines for more useful projects.

# PROBLEM #2: TRANSPORTATION AGENCIES ARE MISSING OPPORTUNITIES TO EFFECTIVELY SPUR ECONOMIC DEVELOPMENT

Transportation investments can foster economic growth in diverse ways, from connecting workers to jobs to adding access for new employers to building strong main streets and economic centers. Your state's transportation program should be flexible enough to take advantage of all of these opportunities.

## Solution: Invest in transit

Public transportation connects workers to jobs, provides transportation choices, reduces highway congestion, and can be an anchor and magnet for development. Yet many states are failing to invest in this powerful economic development tool. The results have been impressive in states that have stepped up their investment in transit. Colorado DOT partnered with the Denver city/county government, the regional transit agency, and the regional council of governments to redevelop Denver Union Station. The station is now the hub of the region's rapidly growing transit system and an anchor for $1 billion in real estate development and $3 billion in new economic activity in the emerging LoDo neighborhood.[1] While witnessing the massive local, regional and state benefits of Denver expanding its public transportation system over the past decade, Colorado has also eased its restrictions that prevented state funds from being invested in public transportation through statutory

1 http://urbanland.uli.org/development-business/linchpin-of-the-west/; http://www.bizjournals.com/denver/blog/earth_to_power/2014/04/denver-union-station-areadraws-1-billion-in.html

changes. Recent laws have expanded the uses of state transportation spending — particularly funds directed to local governments for local needs — to fund all types of projects. Administrations should use their discretionary funds — including flexible federal funds — to invest in all modes.

## Solution: Invest in walkable places

Indianapolis has realized an extraordinary economic return from the city's incredible Cultural Trail, a walking and biking trail traversing the city's downtown and adjacent neighborhoods. The $63 million project has helped to boost adjacent property values by more than $1 billion since 2008.[1] A non-profit project team bundled local, federal and philanthropic funding to build the project. In Indiana, no state funding was available for this type of project, but other states have been successful investors in these transformative projects through funding programs like Massachusetts DOT's Complete Streets Funding Program, Pennsylvania's Multimodal Transportation Fund, or Oregon DOT's ConnectOregon.

## Solution: Invest in main streets

State investments have particular importance in rural areas. Research shows that main streets and spot safety improvements are the transportation projects that deliver the greatest return on investment.[2] Yet many states have had a narrow focus on highway expansions or, less often, rail, freight, and warehousing improvements, to lure industrial employers to rural regions.

One example from North Carolina illustrates the potential of focused main street investment. Driven in the beginning by a desire to save money on operations costs, the North Carolina Department of Transportation partnered with the western mountain town of West Jefferson to improve the streetscape along three blocks of this historic downtown. In order to calm traffic and make the area more welcoming to pedestrians, NCDOT replaced two signalized intersections with 4-way stops, added diagonal parking, curb extensions, high-visibility mid-block crossings, and street furniture. The $300,000 reconfiguration transformed downtown and turned it into a renewed destination for locals and tourists alike, while the roadway has maintained consistent travel times. Local leaders specifically credit the slower traffic and improved pedestrian environment with bringing 10 new businesses, 55 new jobs and $500,000 worth of investment to Jefferson Avenue.[3]

## Solution: Fix-it-first

Too often, states focus on expanding the transportation network, ignoring the benefits from maintaining existing infrastructure. Repairing existing roads and bridges creates 16 percent more jobs than building new infrastructure, and more spending goes to wages — meaning more money that goes back into your state's economy.[4] A study in Minnesota shows that the average road maintenance project delivers three times the benefit of road expansion.[5]

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1 Jessica Majors and Sue Burrow. "Assessment of the Impact of the Indianapolis Cultural Trail" Indiana University Public Policy Institute. http://indyculturaltrail.org/2015/07/28/indianapolis-cultural-trail-is-a-key-economic-and-community-driver/

2 Smart Growth America and Minnesota Department of Transportation. "Assessing Return on Investment in Minnesota's State Highway Program." https://smartgrowthamerica.org/resources/assessing-return-on-investment-in-minnesotas-state-highway-program/

3 Smart Growth America. "Safer Streets Stronger Economies." https://www.smartgrowthamerica.org/app/legacy/documents/safer-streets-stronger-economies.pdf

4 Smart Growth America and the University of Utah. "The Best Stimulus for the Money." https://www.smartgrowthamerica.org/app/legacy/documents/thebeststimulus.pdf

5 Smart Growth America and Minnesota Department of Transportation. "Assessing Return on Investment in Minnesota's State Highway Program." https://smartgrowthamerica.org/resources/assessing-return-on-investment-in-minnesotas-state-highway-program/

Recognizing that critical repair projects often get passed over for more popular new construction, several states explicitly prioritize repair work. Rapidly-growing Florida is expanding its highway and transportation network, but has put the primary emphasis on preserving the existing system. State law sets minimum thresholds for pavement and bridge condition. Programming funds to every preservation need before funding expansions has helped Florida top the list for best bridge maintenance conditions. At the other end of that ranking is Pennsylvania, which faces aging infrastructure and ranks nearly the worst in the country for the percentage of "structurally deficient" bridges in need of repair. To turn this trend around, the state has adopted a fix-it-first policy and implemented an accelerated bridge repair program to focus transportation funds on decreasing the maintenance backlog.

## Solution: Target freight investments where they're most needed

Moving freight is critical to economic development. The logistics sector is itself a major employer and effective and efficient freight movement supports growth in other sectors of the economy. Improving freight movement in your state depends on careful planning to identify the key bottlenecks and needs in all transportation modes where improvements will deliver the greatest economic return. Partnerships with private carriers are key and offer opportunities to leverage state funds with private investments.

Pennsylvania's diverse freight network carried $1.6 trillion in goods in 2011 and the freight value moving through the state is expected to more than double in the next 30 years. To keep up with freight needs and target investments, Pennsylvania's Department of Transportation has worked with freight carriers to develop a Comprehensive Freight Movement Plan.[1] The department is using performance measures specific to freight movement to identify the critical choke points across all transportation modes. The planning is done in conjunction with the state's overall, long-range transportation plan to ensure that freight projects are included in the state's list of priorities. To get the most value out of investments in freight, states should complete this comprehensive planning and focus available funding only on the projects that deliver the greatest return. Federal funding for freight is disproportionately aimed at highway projects, meaning states must especially target state funds to projects like ports, freight rail, aviation, or other critical facilities.

## Solution: Use transportation projects to build employment opportunities and careers for disadvantaged individuals.

While construction jobs offer above-average wages and opportunities for workers with limited education to advance, many barriers remain preventing some workers from accessing these jobs. Targeted hire programs can leverage public works spending to provide new opportunities for disadvantaged workers (including women, people of color, veterans, residents of particular distressed neighborhoods, long-term unemployed workers, or people formerly incarcerated) with job training, support services, and targeted recruitment and job placement. Oregon's Highway Construction Workforce Development Program, a partnership between the state's Department of Transportation and Bureau of Labor & Industries, uses federal highway funds to support apprenticeship, career mentoring, and support services to help disadvantaged workers build skills to enter and advance in the construction industry.[2] A recent study shows this support has been effective and

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1 Pennsylvania Department of Transportation. "Comprehensive Freight Movement Plan." http://www.penndot.gov/ProjectAndPrograms/Planning/Documents/PennDOT-CFMP%20-%20FINAL%20August%202016.pdf

2 "(Still) Building A More Diverse Workforce in the Highway Trades: 2016 Evaluation of the ODOT/BOLI Highway Construction Workforce Development Program." http://www.oregon.gov/boli/SiteAssets/pages/press/Still%20Building%20A%20More%20Diverse%20Skilled%20Workforce%20in%20the%20Highway%20Trades.pdf

that the construction industry is growing slightly more diverse, meaning it is providing more opportunities to disadvantaged residents.

## PROBLEM #3: KEY PARTNERS ARE LEFT OUT OF TRANSPORTATION DECISIONS

The state can't possibly deliver the best projects or reach its transportation and economic development goals working alone, and the best plans and solutions often come from the bottom up. The transportation program is missing opportunities to work with local governments, private companies, and others to achieve the state's priorities.

### Solution: Invest in local innovation

Pennsylvania's cities and towns had great ideas for local projects, but their needs were too often overlooked when it came time for the state to fund its list of projects. In 2013, the legislature created a competitive grant program to fund these kinds of local projects. In the first-of-its-kind Multimodal Transportation Fund, the departments of Transportation and Community & Economic Development gained a new mechanism for partnering with local governments. Cities, counties, transit agencies, ports, and others can apply for state support and these departments pick winning projects to fund. Oregon's ConnectOregon program similarly gives that state Department of Transportation a tool to fund local projects that would not otherwise be eligible for state highway funds.

### Solution: Incentivize local planning

Massachusetts has ambitious goals to increase walking trips to reduce pollution from vehicles and improve health. The state has enacted a complete streets policy to help it achieve these goals, but with 77 percent of the state's road network locally-managed, there was no way for the state to build effective networks for people walking or biking through its own actions alone. MassDOT implemented a complete streets incentive program to encourage local governments to plan and develop strategic networks of complete streets. By making state funds available for planning and construction — but only to communities that have adopted best-practice policies and completed strategic plans — the state is able to fund local networks and incentivize local government participation.

### Solution: Work with employers to manage commuting traffic

As the Seattle region's population booms, the travel needs along key corridors have rapidly grown. Because no amount of new road-building could keep up with the needs in the dense region hemmed in by water and mountains, Washington has instead used innovative, locally driven transportation demand management to move more commuters on the existing road and transit network. By requiring companies with over 100 employees and local governments to develop transportation management programs, the state's Commute Trip Reduction program has cut traffic delays by 8 percent and vehicle travel by 6 percent, even as the population and economy have grown.[1]

1 "Commute Trip Reduction program overview." http://www.wsdot.wa.gov/Transit/CTR/overview.htm

Seattle was able to reduce the proportion of drive-alone work trips into downtown Seattle from 50 to 31 percent over the course of 14 years, making it possible to add tens of thousands of jobs downtown while keeping car trips into downtown more or less the same.[1]

### Solution: Create a partnership between transportation agencies and health departments to focus on safer streets and healthy communities

Transportation decisions have enormous impacts on public health, from injuries due to crashes to the benefits of walking or biking in reducing obesity. But state transportation and health agencies are rarely integrated in ways that would allow the state to fully consider the health impacts of transportation projects.

Iowa Gov. Terry Branstad (R) pledged to make Iowa the healthiest state in the country, a mission that will depend on work from all parts of the state government. Collaborative meetings between the state departments of Transportation and Public Health and the Iowa Economic Development Authority, along with national partners including the Centers for Disease Control and Prevention (CDC), have focused on how the state government can support walkable communities that offer residents healthier ways to get around. The Department of Public Health has funded community groups to evaluate transportation needs to make walking safe and inviting.

### Solution: Empower regional planning at the metropolitan level

Transportation needs and conditions vary widely across a state as diverse as California. Rather than have one state agency manage traffic across the state, California has empowered regional planning agencies and counties to plan, design, and fund local needs. State law directs three-quarters of transportation funds to MPOs to solve regional mobility needs, and county-level congestion management agencies focus on the best strategies to reduce traffic congestion at the local level. This frees CalTrans, the state transportation department, to focus on statewide mobility needs.

## PROBLEM #4: SPRAWLING DEVELOPMENT IS MAKING COMMUTES WORSE AND TRANSPORTATION COSTS UNSUSTAINABLE

Transportation agencies can't be counted on to solve the problems created by sprawling land uses that demand longer travel distances, increase the demands on key corridors, and cost more to serve than they produce in revenues for the transportation agency.

### Solution: Support local land use planning and scenario planning

California pays a price for sprawling growth focused on constrained highway corridors — Californians endure some of the longest and most congested commutes. To support smart growth within the existing transportation network, a cabinet-level Strategic Growth Council coordinates work by other agencies that impacts growth and development patterns. The state requires regional planning agencies to limit traffic (and climate change

1 "At the speed of Puget Sound." http://t4america.org/maps-tools/local-successes/seattle/; "Commute Seattle: Mode Split." http://commuteseattle.com/2014-modesplit-survey/

pollution) and has provided grants for regional and statewide scenario planning to understand how growth patterns will impact transportation (as well as the environment and water). This planning allows transportation projects to better match the state's overall policy goals and ensures investments can solve more than one problem at once, a necessity in a time of constrained budgets.

When Vermont's Agency of Transportation (VTrans) was forced to reevaluate a long-planned highway project (the Circumferential Highway) under opposition from environmental and citizen groups, VTrans found that many of the transportation challenges in the region arose because local governments lacked the resources to plan for growth. With inadequate planning at the local and regional level, the state was forced to try to solve increasingly difficult and expensive transportation problems. So the state sought to improve community planning from the outset by appropriating transportation funding to regional planning commissions to plan for community growth. The state resources have built local capacity by enabling small, rural communities to access the best available planning tools. Scenario planning allows towns to plan for the type of growth residents desire, and allows the state to meet local transportation needs.

### Solution: Use tolls to manage congestion

Rather than being used as a blunt tool just to collect revenue, highway tolls can, and should, be used as a dynamic tool to manage traffic and also fund multiple transportation options on key corridors. Rapid growth in Colorado meant that there was no way that highway lanes alone would clear up congestion on the Denver-to-Boulder US 36 corridor. So Colorado DOT partnered with the Denver regional transit agency to construct two new high-occupancy toll lanes, add express bus service, and build a parallel commuter bike trail, all partially financed through tolls on new lanes. Tolls adjust with traffic flow to encourage a shift in individual travel choices and create faster-moving lanes. The new transit service and the bikeway give commuters options. Virginia, Washington, and California have also recently implemented dynamic tolling to manage traffic and fund other travel modes.

### Solution: Invest in transit-oriented development and reward local land use that supports transit

States can get the most out of transportation benefits and incentivize local governments to build in ways compatible with the state's goals by explicitly rewarding local smart growth practices. Virginia's new Smart Scale process to allocate transportation dollars evaluates, as one of six measures applicable in urban areas, the degree to which a proposed project will support "mixed-use development with multimodal choices, infill development, and corridor access management policies."[1] This criterion makes clear to local governments what types of projects the state will support and allows the state to focus resources efficiently on growth that can bring positive local returns.

1 Virginia Department of Transportation. "Smart Scale Technical Guide." http://vasmartscale.org/documents/201606/sstechnical-guide_final_9_8_2016.pdf

## PROBLEM #5: DRIVERLESS VEHICLES AND DISRUPTIVE TECHNOLOGIES COULD LEAD TO MORE TRAFFIC, LESS FUNDING IF STATES AREN'T IN THE DRIVERS' SEAT

Automated vehicles, technology-powered transportation providers, and connected infrastructure will radically reshape the ways people and goods move across your state. These changes have already begun and will arrive sooner than expected. Without direction through state policy, new technologies may add to traffic congestion, pollution, and transportation inequity.

### Solution: Support programs that let new technology solve problems

So far, the policy conversation about automated vehicles is focused on the technical details of their operation: certification, safety, operational and design characteristics, and liability. There has been less focus on the potential challenges, such as increasing roadway congestion, conflicts with urban land-use and urban planning, competition with transit systems, the equity and accessibility of new technology, and the impacts on greenhouse gas emissions and the environment. If new vehicle technology simply replaces the existing private vehicle fleet, it may only exacerbate the negative effects of car traffic in cities and towns. By supporting innovative local pilot projects with specific policy goals, states can encourage the development of new transportation models that solve multiple problems. California is becoming a testing ground for new, technology-enabled transportation services, but the state wanted to ensure that new technologies could serve broader goals of reducing pollution and expanding access to opportunity. The California Air Resources Board has funded a new model by supporting an electric car share pilot program in disadvantaged Los Angeles neighborhoods. The program is operated locally by the City of Los Angeles and the non-profit Shared Use Mobility Center and aims to serve 7,000 new car share drivers with zero-emission vehicles.

## CONCLUSION

State investments in transportation projects can be a valuable way to support strong communities and build long-term prosperity. Yet without new direction and new priorities, transportation agencies will not deliver the cost-effective projects that meet your state's current and future needs. The examples above show how other administrations have redirected their transportation programs in order to solve specific problems and build a better platform for future success. Take these ideas and build from them.