

# VI. POLICY RECOMMENDATIONS: A TRANSPORTATION AGENDA FOR A PROSPEROUS AMERICA

One thing is abundantly clear: If national transportation policy is going to achieve critical national objectives (e.g., advancing competitiveness, promoting sustainability, enhancing security) in an era of fiscal constraints it is going to need to prioritize. Such a development would be the opposite of what has occurred the past several decades, which have seen dollars sent in all directions as the result of a “log-rolling” exercise based more upon political dynamics than on national interest.



The current system is fundamentally broken and major, not incremental, solutions are required to implement next generation solutions. Transportation policy is littered with small, precious, ill-funded efforts to address everything from metropolitan congestion, to deteriorating air quality, to spatial mismatch, to funding concerns. We need to throw out the 1950s-era transportation program and replace it with one that reflects the distinctive realities of our moment: fast-moving, hyper-competitive, super-volatile, and metropolitan-focused. The starting point from the *Transportation for Tomorrow* report is exactly right: **We need a new beginning.**

This, then, is a call for substantive reform. Transportation policy and program governance currently favors par-

ticular modes but is indifferent to substantive outcomes. We propose the reverse: a single minded focus on achieving declared national priorities and indifference to the modal means of achieving them. The nation should settle for nothing less than evidence-based, values-driven decisionmaking.

The political obstacles to such a targeted and purposeful national transportation policy are more difficult than those for particular policy tools. Yet the challenges discussed previously are not resolvable through micro initiatives. It will only come through systemic change in the way we think about, design, and implement transportation policies and how we connect those policies to other aspects of sustainable metropolitan growth: housing, land use, and economic development. Substantial federal foresight is essential.

This means the development of a three-pronged strategy for our national transportation program. First, the federal government must lead where there are clear demands for national uniformity or else to match the scale or geographic reach of certain problems. Yet there are other aspects of transportation policy where metropolitan areas should lead—where we should, in essence, “flip the pyramid,” and put the federal government squarely in the service of state and local leaders whose quintessential knack for solving problems are driving this country forward. Finally, the federal government needs to re-orient transportation policy to remedy the mistakes of the past and establish a coherent performance-measured and outcome-based program for the future.

Above all, the national goal should not be a transportation goal, nor should it be to deliver transportation projects faster. Transportation is a means to an end, not the end itself. The following recommendations are based on that fundamental premise.

## **1. THE FEDERAL GOVERNMENT SHOULD LEAD THE NATIONAL TRANSPORTATION PROGRAM BY DEVELOPING A COHERENT NATIONAL VISION AND IDENTIFYING STRATEGIC NATIONAL INVESTMENTS**

**R**ather than writing blank checks with no purpose or accountability, the federal government should take a strategic and rigorous approach to transportation policy making. It must no longer focus solely on funding individual states or singular needs. The focus of the federal program should be on solving problems and on investing in infrastructure and the competitiveness and environmental sustainability of the nation.

This new paradigm must be rooted in the empirical reality of a changing nation and a globalizing economy. It must be grounded in what we know about the relationship of

### **National Infrastructure Investment Strategies**

**D**ue to divergent issues like failing infrastructure grades across the country and general frustration with Washington, public officials across the political spectrum recognize the serious problems with our national transportation policy framework.

- Pennsylvania Governor Edward Rendell, along with California Governor Arnold Schwarzenegger, and New York City Mayor Michael Bloomberg, formed a coalition, “Building America’s Future,” to assemble support for a renewed federal commitment to infrastructure.
- Leveraging the centennial anniversaries of two great national infrastructure initiatives, Oregon Congressman Earl Blumenauer and America 2050 are calling for the creation of a broad infrastructure investment plan for the nation that includes key national transportation priorities such as interstate goods and passenger movement.
- Several of our international contemporaries have already initiated national transportation reinvestment plans. Recommendations from Australia’s National Transportation Council present a model for creating a national transportation commission that recognizes the need for coordination within a republican government. Canada’s *Straight Ahead* transportation plan offers a legislative blueprint to promote market competition, emphasize multimodal investments, and coordinate transportation policies with interrelated objectives like environmental sustainability.

infrastructure to community building and economic prosperity. It must be cognizant of what other nations are doing, particularly in the industrialized West. And it must be respectful of the wide variance in population and economic growth between the disparate parts of our nation.

The vision should identify strategic infrastructure investments that are of critical importance to national economic competitiveness. The identification of these important federal investments should be based on the overarching vision and the result of a collaborative process of congressionally-appointed civic, corporate, and

elected leaders. In this regard we concur with the *Transportation for Tomorrow* report that Congress should authorize a permanent, independent commission to identify, describe, and map specific priority projects with Congress having the right to vote up or down on the map without amendment. The model is the successful Base Realignment and Closure Commission and the Postal Regulatory Commission.<sup>1</sup>

The **Strategic Transportation Investments Commission (STIC)** would develop a national priority map that would become the basis of a multi-year federally driven program with each specific project prioritized on a cost-benefit basis taking into account multi-modal interactions. The goal of the STIC would be to take a national perspective, as opposed to one based on congressional jurisdictions, and determine which investments are truly national in scope, scale, and return and deserve special federal attention.

The charge of this commission is more limited than that proposed by *Transportation for Tomorrow* which recommended a commission to develop the nation's vision, evaluate all projects, and determine the best ways to pay for them.<sup>2</sup> In this case, instead of focusing on all specific investments and *projects* that use federal money, the STIC would focus on three specific *program* areas of national importance: the preservation and maintenance of the **interstate** system, the development of a true national **intermodal** freight agenda, and a comprehensive national plan for **inter-metro** area passenger travel.

### ***a. Protect the existing asset by making the preservation of the interstate highway system a priority***

The 46,000 mile interstate highway system should be considered a critical federal responsibility. The maintenance and preservation of this vital asset should be the primary target of federal dollars.<sup>3</sup> The federal focus on the existing interstate system could serve as the basis for a re-energized federal program by requiring the STIC to identify those specific places most in need of targeted federal attention.

At its core, this strategy entails the most essential responsibilities such as ensuring the interstate network meets basic safety and security standards and that pavements are of acceptable ride quality. There is no reason why the United States should not strive for broad and ambitious safety goals. Several major industrialized countries (e.g., Sweden, Netherlands, U.K.) have made the drastic reduction of transportation deaths and injuries a major goal, for example.<sup>4</sup> It also demands full scale deployment of advanced (but relatively inexpensive) telecommunications technologies to operate and manage the existing system better, respond to incidents faster, and generate data and information.

**Replacement and upgrading of existing interstate highway infrastructure** is not insignificant, particularly in metropolitan areas with aging freeway systems. This money should be spent efficiently and wisely. The 2006 *Conditions and Performance Report* found that preservation and upgrades of the interstates would cost between \$9.3 and \$12.3 billion over the 20-year period from 2005-2024. This figure includes system rehabilitation as well as safety, telecommunications, and environmental enhancements.<sup>5</sup>

Expanding the existing interstate network effectively doubles these estimates. Therefore the process used to assess the expansion of the interstate needs to be substantially improved and must be subject to rigorous cost effectiveness hurdles that include externalities such as potential increases in greenhouse gas emissions. The STIC should evaluate proposals for system expansion competitively and federal funds should be directed to projects where there is a clear demonstration that they will return value for money, the same it currently is for transit projects.

The focus of the potential expansion should be to uncork bottlenecks to slow the growth in metropolitan congestion. As mentioned, recent research shows that major bottlenecks and clogged highway interchanges are major sources of the congestion problem. The federal government should focus on providing support for untangling bottlenecks of national significance as identified by the STIC. The STIC would need to **identify those bottlenecks most appropriate for federal attention** based on a comprehensive and competitive analysis of problem areas and an accompanying benefit/cost analysis. In this way, the solutions would not mean large scale reconstruction in all cases. Instead, technological fixes, minor augmentations, and other strategies can be used, depending on the project. Building smart should also mean building small.

The STIC should also identify those portions of the interstate system that, because of employment and residential decentralization, no longer serve central transportation goals and are capable of being **decommissioned or downsized**. In center cities and older suburbs the land reclaimed can be leveraged for its market and redevelopment potential. A transformational transportation infrastructure effort, similar to HOPE VI, should be initiated and targeted to economically struggling places where interstates slice through cities such as I-81 in Syracuse which cuts off University Hill from downtown. The options here are many: cities like Fort Worth have relocated a portion of their interstate away from downtowns, Providence turned one into a human-scaled boulevard, others like Seattle, Phoenix, San Diego, and Hartford have capped their downtown interstates with decks, reclaiming the land for parks, museums, schools, and housing. The effort should be pursued as a public-private partnership

with all appropriate levels of government as well as land owners, developers, and other not-for profit community development organizations.

### ***b. Focus on key freight hubs and trade corridors and develop a meaningful intermodal freight agenda***

The national economy is increasingly dependent on trade and just-in-time deliveries and the modern logistics systems that can ensure the efficient operation of supply chains for freight movement that are essential to prosperity. The future economic success of the nation is dependent on the ability to move goods through and between our major metropolitan areas.

However, America's transportation hubs and corridors are under severe stress. Increases in global trade are taxing the nation's current network of airports, seaports, rails and roads. And while each of these modes are working with increasing interdependence the lack of a unified freight strategy has only exacerbated our nation's ability to manage and strategically invest funds. As a result responses are uneven and although congestion is severe in some metropolitan areas we have excess capacity in others. It is no surprise then that several of the early calls for a national transportation vision focus on critical freight corridors between metropolitan areas.

Certainly this is an area where the federal government must lead. Although the federal role in overseeing interstate commerce has changed over the years fostering a productive economy is still a key purpose of national transportation investments. This transcends traditional borders, decisionmaking structures, and industry clusters. The freight transportation industry is highly decentralized with private operators owning almost all of the trucks, rails, and the public sector owning the roads. Given the complexities of the industry, considerable federal leadership is essential.

At the national level, strategic corridors have been identified on a modal or earmarked basis to improve the movement of freight. In addition, newer federal funding mechanisms offer some promise for multimodal freight efforts and regions have used federal funds as well as innovative financing to advance important initiatives such as cleaning up some ports. The federal roles in regulation, safety, and security continue to help ensure those aspects of the nation's freight system.

But there is much more to do. The federal government, in collaboration with states, metropolitan areas, the freight-rail industry, and shippers should develop a comprehensive **National Freight Transportation Plan** as a framework for goods movement policy and investment that spans all modes. It should be a component of the overall national vision—not separate from it. It should go beyond traditional approaches and traditional measures to

take into account environmental and social impacts in addition to economic realities. Without factoring the full scope of impacts, the economic benefits are likely to be overstated.

The bottom line is that the U.S. needs a freight system that can reach globally, be efficient and effective domestically, and be responsive to community concerns about quality of life, safety, security, and the environment. Three discrete, but related, strategies are recommended:

First, there is broad understanding that truck traffic accessing and departing metropolitan area seaports is a major source of congestion in these places. Yet without a visible constituency group the attention to the "first mile" connections these vehicles need is disproportionately small. The federal government should take on the responsibility of **improving these intermodal connections** for efficient and reliable port access. These relatively short connectors would link existing interstates with port terminals (both air and water) to ensure the efficient movement of goods and, in some cases, relieve the burden of this traffic from local neighborhoods. The precise projects would be identified and measured by the STIC and subject to benefit/cost analysis and performance-based outcomes that include environmental and social measurements.

These connectors should take the form of either rail shuttles to distribution hubs or truck-only toll lanes since they are the primary beneficiaries of the improved facility. A recent NCHRP analysis found that this network would require the addition of 400 lane miles of interstate (100 center line miles). They estimate the costs to be about \$12 billion in current dollars.<sup>6</sup> Public/private partnerships have already been used for such projects in metropolitan Los Angeles, Miami, and Savannah. A good place to start is to build off the current federal effort, the Freight Intermodal Distribution Pilot Program. The pilot is woefully underfunded only at only about \$5 million per year, all of which is earmarked.





Next, to ensure efficient movement of goods, the STIC must also **identify freight gateways and corridors of national significance**. Prime candidates are the congested ports in the largest metropolitan areas such as Los Angeles, New York, Seattle, and Chicago. Investments in these corridors should be a matter of federal attention. In this way it should build off of the FHWA's Freight Performance Measures Initiative and prioritize corridors on a benefit/cost basis that would include all modal options. As with the intermodal connectors analyses should include economic metrics such as increasing the velocity of freight movement but not be limited to that frame. Thus major investments in super-trade corridors would not necessarily be favored over technological fixes, or minor augmentations. At the same time, the federal government should be taking steps to help America's intermodal ports shed their reputation as gross polluters. This requires not only the maximum use of freight rail as possible, but also the employing machinery that utilizes alternative and efficient fuels. Freight planning should include specific goals to reduce freight VMT by shifting to rail.

Finally, the federal government should **encourage collaboration and coordination among public agencies within these corridors and hubs** of national significance and where major multijurisdictional projects are under consideration. Federal funding should be contingent on proof of local and state agency collaboration, coordination and agreement on key initiatives. Planning in these mega-regions that cross state and MPO administrative borders should involve all modes of transportation, including highway, transit, airport, rail, and port links.

### ***c. Commit to a comprehensive national plan for inter-metro area passenger movement***

The third area where the federal government must lead is in developing a fundamentally new and bold national plan and strategy for inter-metropolitan area passenger travel. In 2003, Congress missed a prime opportunity to consider the statutes governing surface transportation policy (highways, transit, rail, aviation) during the same session. As a result, the United States is still the only industrialized country in the world that has not pursued an integrated approach to transportation policy.

This ignores both travel and political reality and perpetuates the inefficient and ineffective modal silos that separate aviation from rail from highways and hampers their ability to work together to provide convenient and reliable options for movement between metropolitan areas and in high-growth mega regions. The triple crises of our congested highways, the outmoded aviation system, and the inadequate passenger rail network can be better addressed through an integrated and holistic national approach that the federal government must lead.

## **Investing in 21st Century Port Infrastructure**

**M**any of the nation's leading transportation gateways, whether through sea or air, are beginning to invest in their intermodal connections. Using numerous mechanisms and arrangements to meet their construction finance needs, these localized projects operate like a veritable lab for governments and other port facilities to learn which options might work best for them.

Miami is in the process of awarding a concession agreement to construct a tunnel between downtown and its port. This tunnel will extend the local interstate to the port, thereby separating port traffic from congested city streets. Financially, the concession agreement shifts a significant amount of the \$1.2 billion project's risk to the concessionaire and ensures the Florida DOT will only make payments concordant with the project's condition and performance.

The Alameda Corridor, a rail expressway connecting the ports of Los Angeles and Long Beach to transcontinental rail yards near downtown Los Angeles, was a partnership between the port authorities, railroad companies, and government at the local, state, and federal level. These two ports are the major gateways to Asian markets, and as such it was determined that an efficient connection to all domestic markets via Los Angeles' primary rail facility was mandatory. The project cost over \$2 billion and elected to use container fees to finance the debt, which is turning out to be a deft move: the repayment schedule is currently ten years ahead of schedule due to unexpected cargo levels.

Another rail project is the upgrading of the Heartland Corridor, which connects Columbus, Ohio to Hampton Roads, Virginia. The agreement between the FHWA, three states, and Norfolk Southern Rail is expected to reduce truck traffic in Virginia and reduce delivery times by up to one day between the mid-Atlantic and the Midwest. The deal also works in concert with an arrangement between Norfolk Southern and the Columbus Regional Airport Authority that constructed an intermodal facility adjacent to Columbus' airport.

## Bold Inter-Metropolitan Area Passenger Rail Plans

**W**hen it comes to comprehensive planning for inter-metro connectivity, there is no doubt that Europe is the current world leader. Its Trans-European Transport Network, or TEN-T, is a collection of modal networks that are centrally coordinated to enhance connectivity between the metropolitan centers throughout Europe. The network carries more than half of all European freight and passenger traffic, making it a significant contributor to European economic prosperity. In 2005 TEN-T elected to expand its focus from the original fourteen projects and corridors to thirty. These projects vary in mode and scope, but all maintain the common thread to enhance connectivity while taking advantage of the particular characteristics of each area. TEN-T figures that completing this work will lead to annual benefits of \$12.6 billion for regional transportation alone, as well as significant reductions in transportation-related emissions.

The first order of business is for the federal government to integrate inter-metropolitan area passenger travel as part of the national vision. Since the nation is already well-connected between metropolitan areas by both highway and aviation infrastructure a key component of this recommendation is a **re-thinking of inter-metropolitan area passenger rail** (Amtrak). The current structure is unaccountable, financially unstable, and an institutional monopoly. Correcting these mistakes is of paramount importance, and all ideas should be considered, taking into account the differences between metropolitan areas based on distance, growth rates, and potential market demand. Some solutions will be more applicable in certain metropolitan areas or mega-regions than in others and should consider sharing of freight right of way, identifying where high speed rail is appropriate as opposed to conventional rail, and integrating the nodes with higher density land uses.

Metropolitan areas within 500 miles of one another should be the targets for a re-invigorated rail network that expands options, mitigates the growth in highway traffic, and relieves congestion in crowded airports—particularly along the coasts. A Passenger Rail Working Group (PRWG) analysis showed that leading candidates would include mega-regions in California, the Northeast, the Piedmont, and the western Great Lakes.<sup>7</sup>

A strong federal/state partnership with metropolitan area leaders and regional transit providers may make sense in the jurisdictionally fragmented Northeast mega-region where the rail tracks are dedicated to regional as well as commuter rail travel. In others, including California and Florida, where new rails and rights-of-way are needed, public/private partnerships could be catalyzed for investments.<sup>8</sup> In others, such as the Chicago metropolitan area, careful consideration and planning with freight rail providers may result in a different arrangement.

The plan should also focus on a “system of systems” for surface transportation by fully **integrating the rail**

**network into existing air and road transportation networks.** Doing so would improve landside access to metropolitan airports (or, “travelports”) to enable them to flourish as hubs of regional economic activity.<sup>9</sup>

The STIC should designate these critical corridors that are most in need of national attention. These investments would also be subject to benefit/cost analysis and outcome measures that go beyond traditional measures like number of passengers or cost effectiveness and consider energy and environment, access and social benefits, land use and others (see discussion about performance measures). Like the rest of the transportation program federal spending on inter-metropolitan area passenger travel—including rail—must be subject to the Government Performance and Results Act.

Irrespective of the specifics a national plan must recognize the key role state and metropolitan partners will play in the system of the coming decades. In this regard inter-metropolitan area passenger rail should be **eligible for the broad flexible funding provisions** that govern the rest of the federal transportation program. If states and metropolitan areas wish to spend federal transportation funds on passenger rail they should be allowed to do so. States such as California, North Carolina, and Washington are working closely with the federal government to maintain passenger rail service by investing in station renovations, track upgrades and other infrastructure needs. The states are also providing planning resources that have been absent on the federal level.

The nation needs a functioning inter-metropolitan area network for passenger travel. Americans should have access to safe, reliable, and convenient choices. By not providing these options the U.S. stands out from its global competitors. The federal government should take the lead role in establishing a new frame for inter-metropolitan area travel that is flexible and responsive to the different travel needs of the nation. Doing so will move us to a more integrated, sustainable, and competitive future.

## 2. THE FEDERAL GOVERNMENT SHOULD EMPOWER STATES AND METROPOLITAN AREAS TO GROW IN SUSTAINABLE WAYS

The range of challenges as well as the profound demographic, economic, and spatial changes underway in the United States calls for a new federal partnership with state and metropolitan leaders, along with local governments and the private sector, to promote environmental sustainability and strengthen metropolitan economies.

The late 20th century model in transportation retained the standard federalism pyramid structure: with the federal government providing resources that rain down from the state, to metropolitan, and ultimately the local level. But while this structure may have been appropriate for 1956, the problem is that today it is without the meaningful national purpose that the Interstates provided. The result is that this devolution of responsibility produced results that are so far uneven and generally disappointing.

What we need now is a new 21st century compact that flips the pyramid and challenges our nation's state and metropolitan leaders to develop deep and innovative visions to solve the most pressing transportation problems. The federal government should become a permissive partner in such an effort but should hold these places accountable for advancing this tailor-made, bottom-up vision. Metropolitan areas should have the predictability of funding necessary to make long-term planning possible, and the ability to make innovative strategic decisions. We need to go further than the federal experiment that began in 1991 by devolving more decisionmaking power and funding to metropolitan entities.

This means moving to a tripartite division of labor: (a) the STIC deciding major national transportation expansions and investments as discussed; (b) the states retaining the primary role on most decisionmaking, for preserving and maintaining the interstates, and in small and medium sized metropolitan; and (c) the major metropolitan areas with a population over two million are given more direct funding and project selection authority through a new program we're calling METRO (**M**etropolitan **E**mpowermen**T** **p**ROgram).

The METRO program should be formula-driven based on population and modeled after the Community Development Block Grant program. The program would consolidate several categorical programs that would include not just the Congestion Mitigation and Air Quality (CMAQ) and Transportation Enhancements (TE) funds (which many states already suballocate directly to metropolitan areas) but also the Job Access and Reverse Commute, and Transportation and Community and System Preservation programs as well as portions of major programs such as bridge repair.

Congress directly holds MPOs responsible for developing transportation plans and programs to help their regions meet federal air quality standards and these entities should be given direct access to these implementation funds. The MPO planning process offers untapped opportunities to identify environmental issues and account for them in the process of defining project alternatives. When the MPO has more discretionary funding for local projects, local officials are more likely to participate in the process. The availability of these funds not only provides financing for vital local projects but also encourages local officials to get involved in the transportation decisionmaking for their region.

A realignment of responsibilities also means the federal government needs to empower states and metropolitan places in areas like congestion pricing, providing a range of transportation choices, and connecting infrastructure investments to housing and land use:

### ***a. Embrace pricing and incentivize market mechanisms to allow for better management of the metropolitan network***

The mounting transportation pressures on metropolitan areas occur at a time of severe fiscal constraint, pervasive frustration with congestion, and increasing opposition to road expansion. As in Europe, this requires a firm national commitment to make maximum use of existing road capacity and expand transportation alternatives. The federal government must, therefore, augment efforts to use state-of-the-art technology and communications to encourage market responses that would make better use of the existing system, including road pricing.

With a considerable number of successful projects, tests, and studies in the U.S. and around the globe there is little doubt that the greater use of market mechanisms and pricing strategies can effectively address congestion on major roads and highways during peak times and manage the enormous demand for scarce capacity. While the ability of tolls to make a meaningful impact on overall revenues is still years away the increased use of tolling will help the nation correct the critical problem of today's transportation network not being priced correctly. It is critical for the United States to understand what most other nations already know: that the mispricing of transportation has enormous consequences.

The federal government should establish a **national policy for metropolitan road pricing** to assist and guide metropolitan areas as they struggle with capacity constraints, climate challenges and revenue allocation. Such a policy should lay out a bold, flexible vision that includes a range of strategies including standard tolling, variable pricing, high occupancy toll (HOT) lanes, cordon and area wide schemes. The goal of the national policy would be to permit metropolitan areas to experiment with the best mix



of strategies for their particular area. But any project using federal money to add additional lanes to the interstate highway system within metropolitan areas should be required to be tolled with optimal electronic collection strategies.

A national metropolitan road pricing strategy should also address several issues:

First the federal government should **remove the archaic restrictions on tolling the interstate system**. Metropolitan and local leaders—in conjunction with the states—are in the best position to determine which interstate roadway segments are the strongest candidates for pricing strategies. Such portions would include those where a range of travel options exist or are planned, and where the most intense peak-hour congestion on expressways is present. A broad range of tolling strategies should be considered—not solely for revenue generation but for congestion and demand management strategies such as on beltways, downtown spurs and within mega regions.

Next, the federal government should follow the advice of the NSTPRSC and **promote a national standard for electronic toll collection**. With a number of toll networks already established and more certainly on the way the federal government clearly has a role in making sure electronic toll payments by motorists do not become a burden in interstate commerce. Electronic tolling also allows the migration to variable pricing and other innovative strategies. Since idling and delays at toll booths increase vehicle emissions and add to overall metropolitan area traffic congestion the federal government should assist metropolitan and state transportation authorities, through guidance and flexibility, to convert their traditional toll booths to fully electronic lanes. A worthy goal would be to eliminate all toll booths in the U.S. by 2015.<sup>11</sup>

Third the federal government should help metropolitan areas address what Anthony Downs refers to as the “economically discriminating” nature of road pricing.<sup>12</sup> There are several ways to do this. One would be to require that at least a portion of the revenues generated from the tolls

on the federal interstate go into a **Metropolitan Equity Pool** to fund programs to improve job access and ease the burden on low income families. Metropolitan areas could determine what other toll facility revenues would contribute to the fund and what remediation strategies should be considered. For example, revenues could subsidize the costs of increased paratransit type-services or could fund “toll credits” that low income households would receive to occasionally drive on priced lanes.

The federal government should also incentivize a range of **market-based demand management strategies** such as commuter choice, car sharing, feebate programs, location-efficiency, parking cash-out, and pay-as-you-drive (PAYD) auto insurance programs. For example by pricing auto insurance per mile driven rather than as a lump sum per vehicle, PAYD would give drivers an incentive to reduce vehicle miles traveled. A reduction in VMT of 8 percent, which would yield \$52 billion in social benefits from reduced traffic accidents, congestion, air pollution, greenhouse gas emissions, and dependence on oil. PAYD would also reduce the cost of insurance for two-thirds of drivers, who would save an average of \$270 each, and be more equitable since low-mileage drivers—including low-income people and women who tend to drive fewer miles on average—currently subsidize high-mileage drivers.<sup>13</sup>

Lastly, because the movement to employ public/private partnerships (PPPs) for transportation ostensibly—and appropriately—involves the use of tolling strategies for profit making, the federal government should assist metropolitan areas and other transportation authorities by **developing meaningful guidance** as part of its overall road pricing vision. The primary purpose would be to enable decisionmakers on the state, local, and metropolitan levels to consider PPPs in a holistic context, rather than solely through a financial lens. Thus, the intention is not to focus on the art of the deal but, rather, on the key policy issues that both sides need to consider, how they are connected to larger national transportation discussions, and how they play out on the state, metropoli-

### Metropolitan Suballocation

California, where 97 percent of employment and output is generated within metropolitan areas, is a unique state when it comes to state and metropolitan interaction. Starting in 1998, California has suballocated all of its CMAQ funds as well as 75 percent of the remaining program funds, including those from the STP. The result is stark: in California’s metropolitan areas, 21 percent of the STP funds were flexed to transit from 1998 to 2002. During that same time other MPOs across the country spent 9.3 percent of all devolved STP funds on transit projects whereas only 2.5 percent of state-controlled STP funds were so allocated.<sup>10</sup> It should be no wonder that the state that has made the most significant commitment to tackling the challenges of climate change is also the one that put its metropolitan areas in charge of the air quality funds.

## Public-Private Partnership Units

**M**any countries have begun implementing specialized units throughout various governmental agencies to assist with the expanding opportunities for public-private partnerships (PPPs). So-called PPP Units provide divergent services based on the needs of the department or agency, but all share the common goal of protecting the public's interest by providing critical assistance regarding PPPs.

■ Canada maintains one of the most well-funded and expansively responsible PPP units. Formed in 2007, PPP Canada Inc. administers a \$1.2 billion fund to support and invest in PPP infrastructure projects, in addition to providing other public units and private firms with valuable information regarding the PPP process. The unit and its fund operate within a broader Canadian infrastructure plan, Building Canada, which commits \$32 billion over seven years to promote a growing economy, a cleaner environment, and more prosperous communities. In addition to the federal unit, Canadian Provinces also may maintain their own PPP units. For example, British Columbia's Partnerships

British Columbia, a company owned by the Province, offers a range of functions from guidance materials to contractual monitoring.

■ Ireland utilizes two separate units to split the tasks of informing and financially supporting PPPs. The Central PPP Policy Unit's primary responsibilities are to develop the framework, including legislation, to support the PPP process while also disseminating best practice information. The companion program, the National Development Finance Agency, operates in the financial sector by applying commercial financial evaluation standards to ensure the Exchequer maximizes the public investment returns. The Agency also oversees the procurement process in the health, justice, and education sectors. Since 2005 both units have received votes of confidence from the central government by receiving expanded responsibilities.

Canada and Ireland display just two of the different approaches to national PPP unit development; India, the Netherlands, South Africa, and Italy are a sampling of the other countries that employ PPP units to facilitate their PPP process.

tan, and local level with respect to issues such as metropolitan growth, housing, public health, and climate change. So although it is discussed here as part of the overall road pricing plan, the guidance should address the broad range of potential deals such as private leases of existing public toll roads, concession agreements involving new toll roads, transit PPPs including partnerships related to the significant increase in (mostly private) land value associated with (mostly public) investments in rail transit infrastructure, and freight rail and port infrastructure.

### ***b. Level the playing field by pursuing a strategy of modality neutrality***

Transportation policy and program governance currently favors particular modes but is indifferent to substantive outcomes. This is an inefficient and unrealistic approach. The term "modality neutrality" should redefine how transportation is perceived and should reinforce that it is a tool to advance broader national goals. In other words, examining particular policy areas through the broad lens of the policy outcomes (e.g. economy, environment, equity) rather than that of a particular mode (e.g., highway, transit, bike/pedestrian, air). Without a doubt specific and dif-

ferent modes are critical to delivery, but that should not be the starting point.

Yet such modal agnosticism does not mean ignoring realities. Metropolitan areas across the country are seeking innovative ways to shape future growth, provide more choices, and at least somewhat mitigate climate changes. Civic, corporate, and business leaders are constructing bold new visions, engaging local governments in true metropolitan decisionmaking, and leveraging private funding for infrastructure projects. Formerly auto-centric metropolitan areas like Los Angeles and Dallas have made transformative use of new investments in key corridors. Metropolitan Denver is embarking on arguably the most extensive multi-modal transportation expansion this nation has even seen.

Unfortunately most of this innovation is happening in spite of—rather than in conjunction with—the support of the federal government. Transit and highway systems are treated differently by federal policy, law, and regulations. This is not sensible policy and is completely out of step with social, environmental, and political reality and it has to change.

In order to empower metropolitan entities to make good decisions about transportation investments, various

transportation options must be compared holistically, equally, and consistently based on their merits. Metropolitan decisionmakers should be able to choose the best set or combination of transportation strategies that meet their views, values, and directions. Thus metropolitan leaders should be able to pursue the best transportation alternatives for their communities, not the alternative that is simply the easiest to get funded or approved. Several reforms are needed.

For one, the federal government should **require equal treatment of proposed highway and transit projects**. Scrutiny of new transit projects is certainly warranted given the incredibly high demand for scarce funding and the dramatic impact such investments can have on a metropolitan area when done correctly. The federal government must prioritize transit investments in those metropolitan areas where states and localities have made the strongest commitment to making the maximum use of the investment. But there is no reason why new roadway projects using federal funds should not face the same level of scrutiny as new rail projects.

The federal agencies should evaluate and rate candidate all new capacity projects (including highways) similar to what it does now for new transit projects. It should create a single review process for all new capacity (roads and rails) and **bring back the major investment study requirement** for corridor planning. Then, depending on what the locally defined outcomes are (e.g., safety, improved mobility, job access, better air quality) a range of alternatives can be studied. Aside from considering environmental impacts all projects must be reviewed for their impacts on employment, operating efficiency, cost effectiveness, land use policies, and level of local funding commitment. By doing so a broad range of stakeholders are engaged early in the development of alternatives. As a result there is greater transparency, review is expedited, and certain corridors get projects delivered quicker.

Similarly, long-range **financial requirements for highway projects should be disclosed at program level**, as they now are for transit projects. In order to receive federal funding new transit projects must demonstrate their ability to maintain, operate, and preserve the facility. The federal government should ensure the long term financial stability of their investment. What makes sense for a transit project surely also make sense for a roadway project. The financial package should be part of a benefit/cost analysis for all new capacity projects so the federal government can determine which will have return value for the money.

Lastly, the existing highway trust fund should be converted into a **unified Transportation Trust Fund** by doing away with the separate highway and transit accounts as the NSTRSPC suggested. The federal government also must take steps to address the disparities in the federal

match ratios between highways and transit. Simply put, the disparity between the 50 to 60 percent federal match for transit and the 80 to 90 percent match for highways is far too dramatic to ensure proper metropolitan and local decisions. The issue is not that the transit share is not high enough; rather the issue is that it distorts decision inputs by not being equal to the highway share. The federal share should be the same irrespective of mode.

### ***c. Support innovation through Sustainability Challenge Contracts that connect transportation to housing, land use, and metropolitan growth***

Although transportation investments are widely perceived as economic stimulants, the last several years demonstrated that as a nation we are not using transportation to plan for metropolitan prosperity. Household spending on transportation is very high, energy security is a major question, and climate change is a national concern.

With the U.S. set to add another 120 million people by 2050 such resource pressures are likely to intensify. As a result of this growth, Arthur C. Nelson has estimated that the United States will require an additional 213 billion square feet of homes, retail facilities, office buildings, and other built space. How and where we build in the future carries far-reaching implications for the health of our environment, our energy security, and our economic security and will continue to be a barrier to our metropolitan areas' economic success and our ability to compete globally. Addressing these national concerns will require the federal government to reach across sectoral and bureaucratic silos.

The federal government needs to assist states and metropolitan areas in developing truly integrated transportation, land use, and economic development plans in order to envision how, in what form, and what kind of infrastructure will be necessary to serve the projected growth over the next several decades. In this regard, **Sustainability Challenge Contracts** should be created to entice states and metropolitan areas to devise a broad vision for coping with congestion and greenhouse gas emissions across transportation, housing, land use, economic development and energy policies. Selected places would be provided additional resources (on top of regular block grant allocations) as well as new powers to align disparate federal programs in support of the vision. The mechanism for these grants could be the Climate Security Act of 2007 currently under consideration in Congress.

Partnerships of states, metropolitan areas, localities, and the private sector would apply for these competitive grants that would ideally encompass a range of solutions from all modes and would tie-in directly to an articulated set of national transportation outcomes rather than simply extrapolating from past trends. Examples include household savings, accessibility/choices, climate goals,

## Scenario Planning

A major challenge facing many metropolitan areas is how to develop ways to define growth, instead of being defined by it.

■ In 2002, the Sacramento region initiated its Blueprint project to devise alternatives to current transportation investment priorities and land use patterns in order to increase travel options, shorten commutes, improve air quality, and provide for housing choices that more closely align with the needs of an aging population. This broad vision—the result of scenario planning with local officials and the general public—is intended to guide land-use and transportation choices over the next 50 years. The preferred land use scenario is expected to result in 33 percent less water consumption, 26 percent less vehicle travel per new

household, and a 7 percent reduction in travel time spent in heavy congestion when compared to existing land-use patterns.

■ Envision Utah is a public-private partnership that promotes sustainable growth in Utah's Greater Wasatch Area through their Quality Growth Strategy. The strategy is a collection of six interconnected goals, including the promotion of transportation choices alongside the provision of housing choices at all income levels, and 32 strategies to meet these goals. One of the primary tools to inform those goals and strategies was the application of a scenario plan, which extrapolated past development trends to uncover what the region would look like if growth went unchecked.

least cost infrastructure and others discussed above. The federal government should fund most of the development of these plans (e.g., at an 80/20 split) in exchange for which official action should be taken by state legislatures and/or MPOs for official endorsement.

MPOs in those places that put these plans in place should receive federal funding (and technical assistance) to prepare regional housing strategies that complement the regional transportation plans already mandated by federal law. The metropolitan transportation plans required by SAFETEA-LU should be explicitly coordinated with U.S. Department of Housing and Urban Development's (HUD) requirements for Consolidated Housing Plans, and both should be based on end-user, full cost of living impacts on the costs for shelter and transportation.

This requirement would begin the process of linking regional housing and transportation and could encourage some metropolitan regions to begin addressing regulatory barriers and other rental housing supply constraints. To support MPOs in this expanded mandate, the federal government should provide funding to enable hiring of qualified housing staff, as well as technical assistance. MPOs are a logical choice for the development of regional housing strategies, given that they are generally governed by elected representatives of city and county governments, have been responsible for metropolitan transportation decisionmaking since the early 1990s, and increasingly are staffed with professionals with planning expertise.

Over time, these regional housing strategies should ensure that all communities in a metropolitan area, including the prosperous ones, participate in the production of housing for families with a broad range of incomes. Within this new regional planning framework, cities and urban counties would continue to receive funds under the HOME Investment Partnerships and Community Development Block Grant programs, but would be required to implement housing programs in ways that further and are consistent with regional housing strategies. MPOs would have the authority to certify compliance, and cities and counties that were found in non-compliance with these metropolitan strategies would be given a designated period of time to correct the identified deficiencies. Failing that, the jurisdictions would no longer be eligible to receive either federal housing production funds or federal transportation resources.

Relatedly, the federal government has a special chance to leverage the billions that have already been invested in rail and other fixed-transit projects. Congress should direct the U.S. DOT to work with HUD on a special interagency effort to assist metropolitan areas to realize the real estate potential of transit stations and then figure out a way to capture that value. This public/private initiative could involve a range of activities (such as research, technical assistance, and joint agency planning) and could provide a helpful forum for metropolitan officials, transit operators, private sector developers, financial institutions, and secondary mortgage market entities. The U.S. DOT should initiate a **Smart Transportation Partnership**

headed by the most progressive developers, federal officials, and private sector financiers.

To take full advantage of development opportunities around transit stops the federal government must **overhaul the cost-effectiveness index** that determines which metropolitan projects receive New Starts funding for rail projects. It needs to move well beyond the overly simplistic calculation of the ratio of capital and operating costs divided by time saved. The ability for the right kind of investments to stimulate efficient high-density transit-oriented development and the environmental and agglomeration benefits that accrue should be sufficiently weighted.

Beyond transportation, the federal government should remove the prohibition for dense concentrations of affordable units if they are within close proximity to transit stations. Indeed, such location-efficient clustering of affordable units should be encouraged.

### 3. OPTIMIZE WASHINGTON'S OWN PERFORMANCE AND THAT OF ITS PARTNERS WITH A GREATER FOCUS ON OUTCOMES, ACCOUNTABILITY, AND TRANSPARENCY TO MAXIMIZE METROPOLITAN PROSPERITY

Most in the dominant discussion about how much money we are spending on the federal transportation program is the question about how we can spend that money better. To be sure, federal investments in transportation are substantial; yet there is broad agreement that this level of investment is not enough. Why not? Prior to the discussion about how much money to spend, we need a frank and rigorous debate about how to spend that money better.

Simply put, we cannot afford a free-rider program any longer. The prioritization of transportation policy and spending means the federal program should focus on those places where positive returns are certain.

Therefore, the first order of business is to re-orient transportation policy so the federal government and its state and metropolitan partners are purposeful, accountable, and outcome-based. In order to rebuild the public trust, the rationale for the federal program should be abundantly clear to the American people to which a tangible set of outcomes must be explicitly tied. The recipients of federal dollars should then be held accountable for meeting these goals.

This is not a new idea and is one that was embraced by the NSTPRSC in their call to “begin anew.” The regular and predictable pushback from the states and metropolitan areas is the oft-cited complaint that the nation is too broad and diverse for national standards. No doubt this is an important consideration. Yet this is not a call for rigid, uniform rules but for an **intentional, evidence-based**

**program** structured around broad national goals. It should be up to the federal transportation partners on the state and metropolitan level to demonstrate how they will meet or exceed those goals.

As mentioned, there is substantial federal precedent for such a national accountability framework in education and welfare, for example. Why recipients of federal transportation dollars should be exempt from such stewardship has yet to be fully explained. The transportation system of governance and finance shares similarities with many other areas of domestic policy—and should operate under similar accountability.

Recognizing the political hurdles in linking funding to outcomes, performance, and accountability, **states should be allowed to opt-out** of the revamped federal transportation program. Those states would be free from most federal regulations but would also forgo their allocation of transportation trust fund revenues. They would still be required, however, to maintain and preserve their portion of the interstate highway system through whatever means they deem appropriate but failure to do so would jeopardize their opt-out status.<sup>14</sup>

However, there is no doubt that as large, bureaucratic agencies that state DOTs should strive to improve their internal management and operations in order to improve project delivery, reduce cost overruns, and keep the existing system in state of good repair. These are basic elements of a functioning system. However, one thing is certain: broad based outcomes must be part of the conversation and they must begin to move away from transportation-for-transportation's-sake notions and toward investments that deliver an America that is more economically competitive and productive, improves the environment, and provides greater mobility and access to opportunity. These three categories clearly overlap and there are many options here:

**To serve the nation's economy**, congestion costs should be reduced for both providers and users as well as passengers and increasing the velocity of freight at international gateways and internal hubs. Agglomerations of economic activity, especially around labor markets, should be enhanced at the same time that new markets are built such as around alternative fuels and new technology. There is also a basic imperative to make the transportation safe and secure for all travelers. Reducing transportation-related deaths and injuries by making the system safe and secure is paramount. In this way, certain transportation investments could also reduce the nation's massive health care costs which would have a positive impact on the economy.

**To improve the environment**, several states as well as the federal government have already articulated a desire to reduce transportation-related mobile source emissions in order to conform with the transportation provisions of

## Reforms for Coordination, Efficiency and Transparency

**M**etropolitan Chicago, one of America's most vibrant economies, maintains a unique dual role when it comes to transportation policy. Serving both the nation and the region as a freight and passenger transportation hub, Chicago's officials must ensure its external transportation network is operating efficiently. At the same time, Chicago's intrametropolitan transportation network must serve its diverse economy. These two major responsibilities place significant emphasis on sound decisionmaking by the area's Regional Transportation Authority. The RTA serves the six counties of Illinois-based metropolitan Chicago and oversees the primary budget and financing of three local service boards: the Chicago Transit Authority, Metra commuter rail, and Pace suburban bus services.

In recognition of RTA's dual responsibilities and modal breadth, the Illinois Legislature in January 2008 amended RTA's authorizing legislature in an effort to enhance metropolitan coordination and effi-

ciency. The primary vehicle to achieve these ends was the establishment of a Strategic Plan. First, the RTA must identify goals and objectives, and then measure the progress towards achieving them. The Plan also must contain strict criteria for capital project selection. These criteria will ensure the RTA's Capital Program is filled with projects that conform to RTA's metropolitan objectives and have a reasonable chance of being funded. Finally, the RTA must work with Chicago's Metropolitan Agency for Planning in creating the Strategic Plan, thereby establishing metro-wide coordination with other public objectives.

By reforming the RTA with the goals of coordination, efficiency, and transparency in mind, Chicago is ensuring it has the institutional framework to meet the area's transportation demands. Just as importantly, Chicago's method to address its diverse responsibilities can serve as a model to other public transportation agencies looking to reform.

the Clean Air Act. We should go further and in addition to a net reduction in carbon dioxide emissions a reduced dependence on foreign oil is also critical (which is a clear benefit to the national economy). To that end, the federal program should support all three legs of the stool—vehicle efficiency, fuels standards and alternatives, as well as demand reduction strategies promoting efficient development patterns, telecommuting, and increasing travel options for people and goods.

**To provide greater mobility and access to opportunity** the range of transportation choices must be expanded. This must be done in such a way that increases travel reliability and affords better access to a range of employment, services, educational, and recreational opportunities. Such improvements would address another key outcome: saving taxpayers' money and reducing the share of household budgets dedicated to transportation. Certain groups could be explicitly targeted such as low income households or the elderly.

Once there are clear goals and objectives the federal program needs to augment and enforce new accountability and performance standards, dramatically improve data collection, information, and transparency, and reorganize the U.S. DOT to optimize its performance.



### **a. Augment existing accountability efforts and reward performance**

Unfortunately, today the states and MPOs are not equipped to deliver an outcome-driven structure for transportation. No doubt, in recent years several states have developed certain measures to monitor their performance on transportation-related outcomes. Yet they need to go beyond the traditional measures and reorient their planning and programming processes to clearly demonstrate how they will meet the broad set of national outcomes. In this way, the federal government can foster a climate of shared responsibility with its partners on the state and metropolitan level.

Given the wide variation among federal transportation grantees around the nation, broad flexibility should be afforded to states and MPOs to deliver on the outcomes consistent with their particular circumstances. Yet this should not neuter the federal role as is done now with the planning factors by prohibiting courts from reviewing grantees' progress toward considering these goals. Indeed, the U.S. DOT should assess state and metropolitan transportation plans to ensure they are consistent with the goals and purpose articulated in the federal program as a condition for them to continue to receive federal funding.

While no simple analytical tool can provide all the answers, in this era of fiscal austerity the federal government should also take steps to ensure grantees **apply rigorous benefit/cost analyses** to any project that uses federal funds. In this way there can be some assurances that high returns are being generated and that smaller scale investments are properly evaluated. Yet in order for such analyses to be truly useful in making investment decisions, they need to be tightly coordinated with the full range of decisions that local, state, and metropolitan officials make. For one land use measures should be improved and incorporated into any economic analysis. They should also examine the distribution of the benefits and costs of investments across social and income groups, as well as geographic areas. Finally, these newfangled analyses need to understand the rapidly changing travel patterns and characteristics of people and goods.

Congress should then allow the U.S. DOT to maintain an **incentive pool to reward states** and metropolitan areas that consistently perform at an exceptional level. This includes those places that take full advantage of merit-based decisionmaking utilizing relevant empirical evidence resulting in projects that generate very high returns even after accounting for the full range of environmental, social, and geographic impacts. The department should also give high performers relief from regulatory and administrative requirements in order to accelerate project delivery where appropriate. By the same token, the federal DOT should consider possible intervention strategies for

consistent low performers. (In designating high and low performers, DOT should take into account the difficult challenges facing state agencies and MPOs in large and multi-state metropolitan areas).

Another idea would be to reorient the discussion to reward states and metropolitan areas that can demonstrate how they are achieving national priority goals such as GHG and oil consumption reduction. One way to approach this is to **overhaul existing out-of-date funding formulas** so federal funds are not distributed based on factors that potentially increase greenhouse gas emissions, overly simplistic equity provisions, or on the basis of earmarking. Serious consideration should be given as to whether VMT and gasoline consumption make sense at all as a basis for apportionments. By the same token, bonus allocations should be considered for those states and metropolitan areas that reduce their VMT and gasoline consumption through demand management techniques and strategies.

Recognizing that state DOT certification is non-existent and MPO certification is process-driven and weak, a new framework that emphasizes performance is necessary. Every three years the federal government should assess how well its transportation partners on the state and metropolitan level are meeting federal laws and regulations, and what progress they are making to meeting the articulated national goals. The accreditation of these agencies should be based on meeting these accountability standards in order to make it a meaningful process and direct loss of federal funds should be a genuine consequence.

### **b. Build a world-class data and information system ("TranStat") and make it transparent and accessible**

In order to commit to an evidence-based program, a major overhaul is needed in how the federal government collects, assembles, and provides data and information. That is a key—and relatively inexpensive—reform to improve the system as a whole, support metropolitan areas, and to regain the credibility of the public. We desperately need a **sunshine law for transportation data** to better inform decisionmaking at the state and metropolitan levels.

But what's more difficult to ascertain about federal transportation funding is how much different spending decisions could be if policymakers had better information on which to base funding priorities. The current lack of transportation information reduces the ability of policymakers, employers, workers, and citizens in general to influence the metropolitan transportation systems that so strongly shape economic competitiveness, development trends, environmental quality, and the nation's quality of life.

Bold changes to transportation data programs can improve policymakers' understanding of the challenges

## Data Availability

The Virginia DOT Dashboard system is the transportation segment of the statewide Virginia Performs program. The overarching goal of the system is to ensure that each state agency and department is held accountable for its performance. The Dashboard system operates as a straightforward clearinghouse for transportation data, enabling citizens and transportation officials to stay familiar with performance at the local and statewide levels. The especially salient data piece is the release of complete financial data alongside a three-level rating system for project progress. This pressure is confirmed by the numbers; Governing magazine reports that after the system was implemented the Virginia DOT's percentage of projects delivered on time increased from 27 percent in FY 2003 to 87 percent in FY 2008.

Washington is another state that emphasizes data availability to support performance accountability. Anchored by the Government Management, Accountability, and Performance (GMAP) program, Washington DOT meets monthly to discuss agency performance and publishes extensive data every quarter through the Grey Book. The Grey Book data utilizes a rolling cycle to publish certain data ranging from statewide to project specific. In turn, this data is then utilized at GMAP meetings to make crucial management decisions regarding the state's finite resources.

that lie ahead and the changes that are needed. The following should be pursued:

Establish a new federal framework to **ensure the transparency and accessibility of data** and information. State and metropolitan entities should, at a minimum, disclose their spending patterns by political jurisdiction and origins of the revenue used, especially federal dollars, so that the public can better evaluate the spatial equity of transportation spending in accordance with broad goals and performance measures. To the greatest extent practicable, disclosures should take advantage of recent advances in geographic information systems and provide citizens with easy-to-read state and metropolitan and regional maps that chart and chronicle core investments.

Utilize all **funding strategies for transportation data programs**. One option for policymakers is to establish takedowns of federal gas tax funds that are distributed to states. Taxing the flow of selected federal funds at a fraction of one percent could help solidify transportation data collection priorities such as the National Household Travel Survey (NHTS), which offers substantial benefits to users at all levels. Although an expansion of the takedown program would result in slightly less funding for states and regions, those areas would benefit by having regularly funded data programs that increase their understanding of the transportation system and allow them to allocate their own funds more efficiently.

**Improve metropolitan-area data** on mobility and transportation accessibility. Currently, much of the federal transportation data is designed to meet either bureaucratic requirements or narrow highway engineering and safety specifications. These data are ill-suited for use by planners, citizens, or policymakers. While meeting bureau-





cratic expectations should be a primary concern to keep data programs funded, a fundamental change in mindset also is needed. Data collection should be designed from the beginning to provide more basic, useful information on mobility and accessibility in metropolitan areas. Technical tools and models should be sophisticated and sensitive enough to respond to changes in land use projections.

The Bureau of Transportation Statistics (BTS) has gone years without serious institutional investment. A primary goal of any invigorated transportation data effort should be to strengthen this agency that has a mandate to provide data to policymakers. A stronger BTS would frame the debate as policymakers decide how to spend scarce funds on specific projects and programs and improve the patchwork of transportation data programs. Travel and freight surveys should be revised to improve data for long-distance travel and the nation's private truck fleet. In addition, the frequencies of personal travel and freight shipment data should be increased. Policymakers require better than 5- to 7-year-old data in a world of just-in-time goods delivery and increasing personal travel.

Finally, the nation needs independent analysis to answer hard and tough questions on transportation and competitiveness. A greater commitment needs to be made in order to **develop a network of independent and objective researchers** who can help communities grapple with the serious transportation challenges they face in the new century. Evaluations are needed of the benefits and drawbacks of existing programs and policies, replicable innovations, the relation between housing, transportation and other areas of domestic policy, and the development of next generation financing, location and other mechanisms. For example, Congress could specifically direct the GAO to analyze the potential costs savings associated with linking transportation and housing programs in ways that promote more environmentally sensitive, energy efficient and health-enhancing growth patterns. At minimum the federal government should produce a compendium of the work of the Council of University Transportation Centers (CUTC). The federal government spends \$100 million each year that is almost totally unaccounted for.

The bottom line is that the federal government can take a lead role in at least providing data, information, and analysis to empower its partners on the state and metropolitan level to make better decisions and judge performance.

### **c. Organize for success and reorient the mission and purpose of the transportation program**

Bold reforms toward empirical analysis in decisionmaking by examining a range of impacts will require substantial reorientation of the mission of transportation related agencies, officials and personnel. A new cadre of broad-minded transportation professionals needs to be nurtured

## **Functional Reorganization**

**T**he British Ministry for Transport is structured away from *modal* schemes (transit, highways, maritime, etc.) and instead reflects *functional* schemes such as City, Regional, National, and International Networks. These functional schemes also sit together on a Department Board, ensuring that each function has a voice in the establishment of national strategy and policy.

and sustained to move many of these agencies far beyond mere compliance with the minimum requirements of the law. A detailed evaluation of the current federal metropolitan capacity-building program as well as the review of statewide transportation improvement plans is needed to determine whether how well they are working, and whether they are achieving new and modern strategic management and human capital goals.

But the federal government should also **review and improve professional development** at the metropolitan level, with particular attention to knowledge of the new national priorities, techniques to promote efficient development patterns, application of new and emerging transportation technologies, comparative experience, especially in the spatial context of more transportation decisions (city, inter-city, rural etc.). Many MPOs have already become a regional "go to" place for technical planning information and capability. This could bring greater legitimacy to MPO operations and interests. This support could come in the form of increased staff financial support, support to develop analytical technologies and support for university research.

For its part, the recommendations of the NSTPRSC to combine the department's 108 separate surface transportation programs into ten should be given serious consideration. To accomplish this it would be necessary to reorganize the U.S. DOT to reflect a functional—rather than modal—set of purposes.

A new office should be created within the U.S. DOT along with a **Deputy Secretary for National Priorities Implementation** with responsibility for overseeing and monitoring performance in furthering the national priorities. This would also serve as the direct liaison between the STIC and the administration.

Moreover, the U.S. DOT needs to better integrate its own agencies' relationships with its partners and should strengthen the effort to achieve cross-site learning at the subnational level through evaluation of results, benchmarking of performance, and wide dissemination of

emerging “best practices.” To facilitate this, a special research program should be created at the national level to identify and evaluate innovative approaches to metropolitan transportation challenges. An office for Climate Change and Land Use Policy innovation could be established within the U.S. DOT to study innovative climate, energy security, and land use initiatives.

Finally, in order to make progress toward these accountability and performance goals it will be necessary to re-orient the mission of state and metropolitan transportation agencies in order to understand and respond to the diverse and complex transportation challenges of our nation. We need a new pool of transportation practitioners that are expert in a broad range of disciplines, including law, business, economics, finance, social equity, land use, and planning. The U.S. should work closely with the nation’s universities to expose students in relevant disciplines to transportation issues and concerns. Such a **“teach transportation” effort** could ultimately attract a cadre of smart and able students to the profession. Congress should dedicate sufficient resources—say \$50 million annually—to this critical area.

#### **4. FUNDING FOR THE FEDERAL PROGRAM— BOTH FUNDING LEVELS AND SOURCES— SHOULD ONLY BE CONSIDERED AFTER THE REFORM IDEAS ARE PUT IN PLACE**

**J**ust as transportation is not an end in and of itself - neither is increasing funding the primary solution to the transportation problems. However, because of the short term conundrum of the federal government obligating more federal money for transportation than it has to spend and the disdain for the annual rescissions, many are calling for the next Congress and the new President to increase the federal gas tax. This puts the cart before the horse.

Simply put: we should not continue to pour more money into a dysfunctional system before serious attempts at significant policy reform. In other words, the federal transportation program is not just broke; it is broken.

The funding debate needs to shift from spending more and more taxpayer dollars on the same product to where, what, and how to spend that money better. So in addition to just focusing on increasing revenues for the existing program the nation deserves a real conversation about curbing the demand for transportation spending.

It is impossible to start with a funding solution or what the optimal level of investment should be when there is no agreement about what the federal role should be, what problems we are trying to solve, or what questions we are trying to answer. Indeed, although the NSTPRSC did call clearly and specifically for an increase in the fuel tax, they

also maintained that adding revenues to the program in its current form would “not be acceptable.” We concur.

Given the track record of the program in recent years such systemic reform may seem difficult to achieve. However, it has been argued that during their times as transportation visionaries, President Dwight Eisenhower and Senator Daniel Patrick Moynihan did not so much have an inspiration for transportation as they had a revenue stream. Indeed, history has shown that each new wave of transportation policy carried with it a major restructuring in how the system is planned and financed. Looking at it another way: no major federal transportation reform has ever occurred without a major increase in revenues.<sup>15</sup> This should be another one of those times.

We need a clear articulation of the goals and objectives of the federal program, and the desired outcomes. The program should then be structured to get to those outcomes. There then should be a frank and vigorous conversation about the revenues currently available and whether or not additional funding is necessary. At that time, all options toward re-invigorating transportation funding should be on the table to meet the transportation challenges of the future while also ensuring financial revenues will be available. We recommend that the federal government reinvigorate its transportation funding structures





based on the three-pronged strategy to lead, empower, and maximize performance.

**FIRST, to fund the projects of national significance identified by the STIC the federal government should act as a guarantor of debt and create a National Infrastructure Corporation.** The concept of a **National Infrastructure Corporation (NIC)**—a concept that has gained traction in this year’s presidential race. The corporation would sell bonds to private investors who would take this interest income in the form of credits against federal income tax liability. The NIC would be the window through which states and groups of states and localities would request financing or grants for a range of infrastructure projects from road and rails to ports and pipes.

Such an entity could, over time, replace the existing dedicated highway and possibly aviation trust funds, as well as address the new visions for America’s transportation system that were never considered fifty years ago. In addition to addressing the financing issue, the NIC also helps prioritize projects that are critical to the nation’s competitiveness.

The NIC could be similar to—or spun off of—the existing Federal Home Loan Bank.<sup>16</sup> The long-term bonds issued by the European Investment Bank for the European Union represents another potential model. However whereas the European bank is capitalized by funds from its member countries, initial funding for a U.S. model should come from a dedicated stream of existing transportation trust fund revenues. This stream could be a portion of the \$3 billion that currently supports the so-called High Priority Projects. This initial capitalization could leverage several times that amount in infrastructure investments.

The funding for most infrastructure, including transportation, is considered yearly discretionary spending. This system is completely absent of capital budgeting principles, meaning the federal government does not utilize amortization or depreciation of assets nor is there a separate federal system for financing maintenance. Additionally, there is currently no central office with the Executive Office of the President to coordinate or oversee

government-wide infrastructure investments.<sup>17</sup> Overall, assessing successful projects within the Executive Branch is a disjointed affair at best.

Reorienting our funding, the argument goes, promotes a national perspective free from politics which facilitates the internalization of all benefits and costs associated with capital expenditures. Capital spending tends to have distributional effects and enhances the chance for poorer citizens to receive equitable public infrastructure resources. Programs could also receive a scoring bonus if they work with other agencies’ programs to break down departmental silos. Thus, establishing a new funding system will present new opportunities to cross promote the interests of multiple agencies. Also since transportation and infrastructure, writ large, is a series of networks building one piece adds value to all other network pieces. For example, a new road enhances adjoining roads’ values.<sup>18</sup> A new system could help produce more new pieces, thereby providing new value to those infrastructure pieces already constructed.

To paraphrase the 1999 Report of the President’s Commission to Study Capital Budgeting: there are critical components of the current process that should be considered first. They include setting priorities, reporting and evaluating decisions, and providing appropriate information in order to 1) spend money better and 2) be held accountable for those decisions.<sup>19</sup> This idea would need to be polished to ensure it does not serve to simply obviate the broader discussions of reform, prioritization, and raising taxes in the context of the existing program. But if nothing else, this is an important idea that needs to be amplified and aired in the halls of transportation power and research.

**SECOND, to empower states and metropolitan areas to grow in sustainable ways the federal fuel tax should be raised and the outdated formulas that apportion funds largely based on consumption rather than conservation should be overhauled.**

The federal gas tax will and should continue to provide the lion’s share of revenue for the federal program for the foreseeable future. It is easy to administer and it closely integrated with the gas tax leveled at the state level. It also has the ability to affect consumers’ preferences and behavior in some cases. At the same time, a sharp increase in the tax on fossil fuels could prove to be a way to address the problem of climate change and the dependence on foreign energy sources, another key national priority.

It is not without its detractors, though. The gas tax is commonly considered to be inherently regressive, burdening lower income households disproportionately. Further, with the slowing down of vehicular miles traveled, and increasing fuel economy of the vehicle fleet, coupled with

public disdain for gas tax increases, these converging influences will affect anticipated gas tax revenues and, by extension, transportation expenditures, unless changes in tax policy and transportation spending occur at the federal and state levels.

At minimum, the **fuel tax** should be indexed to a reasonable measure of inflation in order to rationalize the process of increasing the tax rate and allow revenues to keep pace with rising costs. But a nominal increase beyond inflation should be strongly considered. Relatedly, the loophole that allows SUV's and light trucks to be exempt from the federal gas guzzler tax should be eliminated.

At the same time, the federal government could reward states that increase their funding or index tax rates to inflation. States, for their part, should pursue a financial policy of "modality neutrality" and remove the restrictions on their gas tax that allows spending on roads only as a condition to receive federal trust fund revenues. In this way, states would undoubtedly make better use of federal funds by increasing their ability to meet federal matching requirements. Currently, states are unable to take advantage of these federal initiatives because they are often unable to come up with their share of the match.

Yet the nation should not be tethered long term to the fuel tax for transportation revenues. Other sources have the ability to not just raise revenues but—more importantly—better manage demand on the system and use the existing network better. For example, a **carbon tax** is a good idea as an environmentally-motivated tax that could potentially generate revenues for a range of transportation choices such as transit.

**THIRD, to optimize Washington's performance and that of its grantees, the federal government should also provide strong incentives for the adoption of market mechanisms like congestion pricing that allow for better management of metropolitan road networks, as well as the expansion of a range of user fees.**

The increased use of **tolling** is critically important in order to use the existing system more efficiently and to better align charges with the costs imposed by users. But tolling can also serve as a key supplement to revenue generation. Toll receipts still make up a very small portion of the total revenue sources used for highways, yet since 2001 the total amount raised from tolls has increased at a faster rate than any other source apart from borrowing. Far reaching tolling strategies such as nationwide congestion pricing

for all major roadways in large metropolitan areas could serve to reduce VMT and congestion and provide a net benefit of \$113 billion over a 20 year period, in 2004 dollars.<sup>20</sup> Such a proposal is on the far end of the spectrum yet it does compellingly demonstrate the ability of tolling strategies to raise significant revenues and supplement the existing fuel tax.

**Heavy truck fees** and **transit user's ticket taxes** make sense in the spirit of allocating costs directly to users. A **mileage fee** (or VMT tax) is a long term idea given the technological challenges. It would use satellite tracking devices to record how far and when motorists drive and would assess a fee based on those travel habits. Benefits include better allocation of revenues (based on the roads used), better allocation of costs (vehicles damaging to infrastructure such as heavy trucks could be assessed a greater fee), and better allocation of resources (higher fees could be charged based on time of day and congestion levels). Sources to raise revenues related to Intermodal port and freight include container fees, waybill fees, and customs duties.<sup>21</sup>

All of these mode-neutral sources are important and have merit and should be discussed as part of a larger conversation about national transportation reform. Yet the overall message is that these ideas about finance and revenue sources should not be motivated by the desire to avoid the necessary task of a more comprehensive and inclusive discussion about transportation—a discussion that includes accountability, overall intent, and connection to broader goals of economic growth and personal mobility.

**All options toward re-invigorating transportation funding should be on the table to meet the transportation challenges of the future while also ensuring financial revenues will be available.**