PIONEER INSTITUTE
PUBLIC POLICY RESEARCH

TRANSCRIPT

Driving Questions

A Forum on Transportation Strategy in Massachusetts

September 14, 2007
Boston, Massachusetts

Keynote Address by Joseph M. Giglio

This discussion forum was organized around the release of Northeastern University Professor Joseph M. Giglio's latest book, *Driving Questions: Developing A National Transportation Vision*, which raises important strategic questions about the planning and funding of the transportation system in Massachusetts. The forum included a panel discussion with the following participants:

Bernard Cohen
Secretary of the Massachusetts Executive Office of Transportation and Public Works

Coby Chase
Director of the Texas Department of Transportation's Government and Public Affairs Division

Paul Haley
Senior Vice President at Lehman Brothers

Fred Salvucci
former Massachusetts Secretary of Transportation and Senior Lecturer at MIT

Martin Capper
President of the IVHS Division of MARK IV Industries

Founded in 1988, Pioneer Institute is a non-partisan public policy think tank committed to keeping Massachusetts economically competitive and to strengthening the core values of an open society. The Shamie Center for Better Government seeks limited, accountable government by promoting efficient delivery of public services, elimination of unnecessary regulation, and a focus on core government functions.

Shamie Center for Better Government

February 2008

The forum featured a keynote address by Professor Giglio, a presentation by Pioneer Institute Research Director Steve Poftak, and a panel discussion. This Transcript reproduces edited portions of the forum.

Joseph M. Giglio

Now, you all know I was asked to address you this morning because of my Olympian detachment on this subject. But one thing I am objective about is the debt of gratitude I owe many of you in this audience for teaching me everything I know about the subject—but, I suspect, not everything they know. So, if I am egregiously wrong, please feel free to grade my paper. But not publicly.

Sometimes it is best to begin at the end. So at the outset let me disclose that I am anti-anti-technology and -market based pricing, and also that I am anti-anti-privatization, -competition and -accountability.

Currently we have the transportation network we deserve in the U.S., but not the one we need for the 21st century, especially in view of our decades-long inability to maintain it adequately and invest in it wisely.

We all have the nagging sense that we don't have the transportation network the nation really needs to support a decent level of economic growth, and functional and dynamic metropolitan areas, as well as an improved quality of life.

This means that the tactical programs we may have, either in practice or on shelves full of elaborate studies, lack essential soundness.

Therefore, whatever funding gaps we think exist for carrying out these tactical programs are speculative at best. How can they be otherwise when we have not yet developed a sound strategy for turning the transportation network into what the country needs?

So, we have to stop trying to put the cart before the horse. In other words, we should stop concentrating on tactical questions and start focusing more on content and strategy. The tactical questions are concerned with how we do things.

The tactical discussion concerns such questions as:

- Should we lease existing transportation assets to the private sector?
- Should we implement roadway pricing on key links of the highway system and make them self-supporting enterprises?
- Should we establish objective enforceable performance standards against which transportation providers can be held accountable, just as the EPA has done for air quality?

Don't get me wrong. These are all reasonable questions. But they are meaningless until we know what we're trying to accomplish with our transportation network. This is the strategic issue, the content question, and we must deal with it before we can address the tactical issues.

So, we should begin by answering at least four strategic questions:

- What is the main purpose of our surface transportation network?
- What resources are available to make the network better?
- How can we best use these resources?
- How can we measure our success in making the transportation network better?

Let me put it differently:

- What should we stop doing?
- What should we keep doing?
- What should we start doing?

In the largest sense, these are the strategic questions because they necessarily drive the tactical programs.

These strategic questions have remained unanswered—even unasked—for far too long. My name may not be Elijah, but let me outline some of the changes taking place, which may help you all frame these questions in ways that can generate meaningful answers.

For starters, the competitive position, technologies, market focus and cost effectiveness of our transportation network are radically different from what they were 50 years ago when we began the construction of the Interstate, one of the wonders of the modern world.

In those days, most private carriers were highly regulated by the federal and state governments; major competition occurred within modes rather than between modes; the country's population was about two-thirds of what it is today, and younger; and the U.S. dominated the world's economic output and consumption.

In contrast, today, private carriers are largely deregulated, intermodal competition is fierce, the global economy has displaced the domestic economy, the U.S. has become a net importer of manufactured goods and a major consumer of foreign produced goods and domestically supplied services.

Still further, our 100 largest metropolitan areas have 65% of the population and generate about 70% of our economic output. How does our national transportation system recognize these economic engines?

Our population will continue to grow dramatically. Last October we surpassed 300 million and are projected to grow by another 120 million by 2050. Where are these folks going to live and travel? For sure, they are not moving in with me. Only India and China will experience this level of population growth.

Today, the U.S. surface transportation program has taken on many features of the government-run monopolies in the former Soviet Union, which were widely recognized as being neither efficient nor effective. Consider these characteristics:

- No incentives for innovation or risk
- Lack of user pricing to differentiate service or ration available capacity
- Uniformly mediocre products
- User satisfaction not a consideration
- Unachievable long range plans
- Local hoarding of available resources

As you all know, the usual scrum of suspects that control transportation programs and projects at all levels of government are cranking up again to slug it out over the next reauthorization bill.

Interestingly enough, most efforts to define the funding gap for surface transportation in the U.S. assume a continuation of past travel patterns. As we have noted, there is little consideration of how such travel patterns may be affected by future changes in domestic and global economics, domestic demographics, institutional arrangements and technology. Let's not forget the latter. Please recall we did not get out of the Stone Age because we ran out of stones.

The one thing certain about the future is that it will be different from the past. Is this reflected in needs studies? Do these studies reflect current and emerging technologies and how they positively impact demand and supply of transportation assets?

Excuse me for interrupting myself, but let me comment about the maintenance issue which is almost always shortchanged when it comes to funding our infrastructure. For example, we know that 80% to 90% of the life-cycle costs of a highway are operation and maintenance costs. Yet the federal aid to highways program has historically favored new construction.

Also, given the misalignment between election cycles and the long-term lifespans of our transportation assets, we typically underfund transportation maintenance and trade on the future because elected officials prefer benefits now and costs later.

The tragedy in Minneapolis exposes the contradictions at the heart of our policy towards maintenance. Would we be better off subjecting maintenance funding to the discipline of the capital markets versus the caprice of politicians?

Because even I recognize the limits of my chutzpah, let me move to wrap and pack this talk. My purpose today is not to complete an argument nor to present policy prescriptions, rather it is to light the fuse, to challenge you to initiate a new debate about our transportation network, to focus on asking the strategic questions, and on a radical reinvention of the entire transportation program.

Please remember that strategy does not have to be painstakingly precise; it just has to not be so wrong that you can't remedy it within a short time.

Thanks for having me and have a great conference.

Steve Poftak

I thank Professor Giglio for his remarks. I am going to talk briefly about some of the tactical issues that Pioneer has addressed over the past year, and then we will quickly move on to our panel discussion.

The context that I would like to set for my presentation and for this discussion is the current transportation environment:

- There is increasing demand and limited new capacity, which together entail greater congestion.

- There is an unabated appetite for new projects and expansion. Anyone who attended the bridge maintenance hearing in September heard the Chair of the Bonding Committee complain of the deluge of requests for new projects. I am sure that Secretary Cohen would second this.

- There is a heightened public awareness of how inadequate maintenance has been. We have recently suffered not only the catastrophic bridge collapse in Minneapolis, but also a deadly accident in one of the Big Dig tunnels, and a recent spate of manhole cover accidents on Massachusetts roadways.

- There is a general acknowledgement of the gap between projected resources and needs, as a variety of estimates all point to a multi-billion dollar shortfall.

It is not good politics to say that the sole solution is new revenues, but neither, as we have observed, is it good policy. We have to make fundamental changes to the way that we fund and manage transportation. To that end, Pioneer has looked at three tactical issues: innovative finance, maintenance, and project selection.

At this forum last year, we had a panel on innovative finance. Given rising concern in the media about rising tolls, I want to point out that innovative financing schemes do not mean toll increases. Tolling is a public policy issue, and is not intrinsically linked to privatization. It is still a public policy decision how any type of agreement with a private entity is structured, and how a tolling schedule is set up.

According to the Turnpike Authority's own bond offering documents, tolls on the Turnpike are projected to increase at roughly four percent per year, in steps. However, tolls are projected to increase regardless of the economic structure that governs that roadway. In whatever way we collectively decide to set a tolling schedule, the market will price in what that tolling schedule allows or does not allow.

At that same forum, Trent Vichie, who had worked on the Indiana Toll Road project for Macquarie Securities, discussed how that project handled maintenance issues. There was a 500-page manual, there was a series of maintenance benchmarks, there were standards they had to meet all the way down to the duration of time that roadkill is allowed to sit on the roadway. And he noted that their standard for maintenance was superior to the standards of the public entity that had controlled the roadway previously. As for the charge that privatization is largely about union busting, Trent pointed out that a majority of the employees on the staff were union members.

What happens, however, if the entity goes bankrupt? Clearly that is a short-term operational issue, and it is something that, depending on the scope of the asset, needs to be considered. But, as Trent pointed out, the public entity holds onto the initial conception payment should the operator go bankrupt, which, in that case, was several billion dollars.

When we discuss the potential for concession agreements and innovative finance, we should try to establish the appropriate level of control and oversight by the public sector. At last year's forum, Henry Dormitzer (then of UBS Securities) proposed a triangular model made up of operational efficiency, financing efficiency, and control. Choose any two. He's being purposefully reductionist, but it gives you an idea of some of the tradeoffs that are involved. In addition, we should consider how individual assets fit with a strategic plan, what level of loss of control is appropriate, and how does a loss of control potentially impact our ability to make strategic decisions going forward.

Fred Salvucci reminded us of the need for skilled public oversight, noting that McDonald's doesn't franchise out all of its restaurants, but continues to run some so that it retains an understanding of its customers and of how to evaluate its franchisees. Innovative financial arrangements require skilled public oversight.

There is, then, more to innovative finance than the decision whether to privatize or not. There is a ladder of options, from fee-based contract services all the way up to asset sales, with each step ceding more control to the private entity. We have already successfully and regularly made the first few steps, letting the private sector design and construct most of our public works. We need to have a robust debate now about how high we want to climb that ladder. We need to determine the appropriate level of public control and the benefits that can emerge from each type of arrangement.

Again, it's not a binary "yes or no" discussion. There is a great deal of nuance that should not be lost in the upcoming discussions on this topic.

I would like to turn to the issue of maintenance. On July 31st, the 100th anniversary of the Longfellow Bridge, we released a report that not only covered the maintenance issues surrounding the Longfellow Bridge, but the maintenance backlog across the state. We found that the Longfellow Bridge has only been maintained twice during its first hundred years. There was a $2 million project in 1959 and a $3.2 million project in 2002. As a result, we will be spending at least $200 million to fix it now.

We modeled several scenarios, and we found that a yearly investment of one percent of the asset value of the bridge over its life would have saved $80 million, and the bridge would have performed better during those years.

As for the state-wide maintenance backlog, we found three causes. First, the preference for new projects over maintenance. As Professor Giglio remarked, there is an almost intractable urge to focus on new projects at the expense of maintenance for clear political reasons, regardless of administration or ideology.

Second, the diffusion of responsibility for assets across the public sector. The Longfellow Bridge, for example, originally belonged to the Metropolitan District Commission (MDC), belongs now to the Department of Conservation and Recreation (DCR), and will soon fall under some type of hybrid structure involving MassHighway. MassHighway has a queue of over 500 structurally deficient bridges, and the Longfellow has now been added to that list.

Third, there are perverse incentives in our budgeting process to neglect maintenance. And this is, perhaps, driven by how state agencies are organized and budgeted. Agencies typically have care and control of their assets, and they view spending of their operational budget on maintenance as taking away from their program budget. Managers who allow a facility to deteriorate crtitically, on the other hand, are able to receive money from another set of capital funds to fix up that asset. In effect, we have a system that rewards those people who neglect their assets.

In taking a look at the entire state, we were able to identify a $17 billion maintenance backlog. This is a floor, not a ceiling, based on publicly disclosed deferred maintenance backlogs from various agencies. Obviously, transportation plays a substantial role in this. Bringing pavement up to excellent condition would cost $6.2 billion; the MBTA has a $2.7 billion backlog; Mass Turnpike bridges account for $400 million; Mass Highway bridges are at least $1.1 billion. These numbers are in the public domain—the real total is probably much larger.

We put forward a three-part solution: measure, budget and execute. First, we need to systematically and comprehensively measure the state of our assets in Massachusetts. What are we doing over the coming year to fix those assets? Is the condition of our assets improving or decaying? The Gray Notebook that is published by the State of Washington Department of Transportation is a good model for that process. It is an accessible document that presents both a high-level view and plenty of detail concerning the state of transportation assets, including what direction asset conditions are headed.

I would also urge some consideration of the GASB 34 modified accounting method, which instead of evaluating assets and depreciation in a mechanical, straight-line way, requires field measurement of the actual state of the assets and how they have depreciated over the year. However, this is only worthwhile if it is done with the intent to actually do something about the backlog, and that depends on the allocation of sufficient resources.

In terms of budgeting, we put forward three ideas. First, put together a reserve fund dedicated to maintenance. In the state of Missouri, it is actually a constitutional provision. One percent of the general fund every year goes into a special fund that is only used for maintenance.

Second, we would like to begin allocating operating funds from the agencies for the maintenance of their assets. We have put forward two percent of the replacement value of those assets as a goal; however, we clearly understand that achieving that level would take some work.

Third, create a state infrastructure bank that would allow us to catalyze some new funding and give municipalities the ability to finance projects themselves.

The key, then, is to execute. Having figured out what we need to do, and put the money in place, we need to actually go out and do it. We need to create a culture in which only those managers who do a good job on maintenance are rewarded.

These are the general recommendations in the report. We also published a Policy Brief, entitled "Fixing Maintenance in Massachusetts," in which we made specific policy recommendations:

- **Clean off the bond cap and apply that money to maintenance.** Right now, state bonds fund at least $200 million of payroll, police cars, computers, and short-lived assets that we should not be funding with 20- or 30-year bonds. We should shift that money to maintenance.

- **Spend at least at part of the annual budget surplus, which was estimated to be $500 million at one point this year, on maintenance.**

- **Use the capability the state already possesses, on a line-item level, to budget for specific agencies to spend money on maintenance, and then make sure that is where the money ends up.**

- **Select projects based on life-cycle costs.** While many of you know the projected cost of the South Coast Rail Link, few of you probably know its life-cycle cost.

- **Fund the Division of Capital Asset Management (DCAM).** DCAM is currently funded solely out of bond funds. It should be on the operating budget. They should have the tools they need to execute their mission to improve maintenance in the Commonwealth.

- **Divest useless assets.** The state currently has a pool of assets that have long outlived their service life. It is currently a cumbersome process for the state to liquidate these assets. It essentially takes a special act of the legislature for every single divestment. We need to come up with a process that puts these assets back into economic use and utilizes the proceeds for maintenance.

- **Consider adding maintenance to general obligation bond covenants.** We currently have a perverse situation where certain bondholders are assured that certain facilities will be properly maintained, facilities they may never set foot in, but taxpayers do not receive the same assurance.

Finally, Pioneer published a paper in October 2006 on, among other things, the project selection process, in which we called for strengthening the Executive Office of Transportation and centralized planning. The implementation of the 2004 Transportation Bond Bill is a step towards this, as is the recently passed executive order calling for the Mass Mobility Compact, and we hope this trend accelerates.

We would like to see the project queue centralized, the transportation system treated holistically across all modes, and the criteria by which we judge transportation projects standardized. We believe that a project's potential contribution to economic growth should be a more significant factor. Currently, economic growth is largely measured in terms of compliance with other state planning tools. We think there needs to be more dynamism in order to reward those communities that are doing active planning and to prioritize those projects that contribute to economic growth and greater utilization.

Thanks. We are going to continue to work on the maintenance issue. We are going to continue to work on the public-private partnership issue. Let us get, however, to our panel.

Panel Discussion
Introductions by Martin Capper

Bernard Cohen, Secretary of the Massachusetts Executive Office of Transportation and Public Works, has held senior management positions at the Metropolitan Transportation Authority in New York, SEPTA in Philadelphia, and the MBTA here in Massachusetts. He also oversaw the Federal Transit Administration's Lower Manhattan Recovery Office in New York City in the aftermath of September 11. Now as the Secretary of Transportation, he has direct oversight of the Massachusetts Highway Department, the Registry of Motor Vehicles, and the Massachusetts Aeronautics Commission. He also serves as chair of the MBTA Board of Directors. Considering the responsibilities he is vested with, and all the issues that are on his table, we are extremely fortunate to have Secretary Bernard Cohen with us today.

Coby Chase is Director of Government and Public Affairs at the Texas Department of Transportation. He has helped implement the SAFETEA-LU transportation reauthorization bill and Texas DOT's improved off-system bridge program. He served as one of the architects of the Trans-Texas Corridor. As public affairs director, Coby oversees the department's state legislative affairs, federal legislative affairs, marketing, and research activities.

Paul Haley is a Senior Vice President at Lehman Brothers. He leads the public finance office in Boston, and is responsible for providing primary coverage of tax-exempt issuers throughout New England. Paul has also served in the Massachusetts legislature, including four years as Chairman of the Ways and Means Committee. He presided over the passage of five annual state budgets, numerous capital authorizations, and was the lead sponsor of legislation to reform the finances of the MBTA. He also initiated a financing package to cover the deficit of the Central Artery Tunnel.

Fred Salvucci was one of Bernard Cohen's predecessors as Secretary of the Massachusetts Executive Office of Transportation and Public Works, and is now a senior lecturer at MIT. As Secretary of Transportation under Governor Dukakis from 1975 to 1978, and again from 1983 to 1990, he has played a central role in transportation planning and policy formulation in the Commonwealth for more than 30 years.

I am going to direct my first question to Secretary Cohen, and ask him to enunciate his view of the transportation strategy that Massachusetts needs for the future.

Bernard Cohen: Thank you, Martin. I would like to thank Pioneer for framing many of the issues that I spend most of my day talking about and grappling with.

We have inherited what I consider a dysfunctional system of undercapitalized agencies and neglected infrastructure. The prior administration's slogan,"fix it first," was essentially that: a slogan, since the funds were never allocated.

Our first responsibility is maintaining the infrastructure we have. However, if we don't invest in new ways, we are going to stand still economically.

There are three specific areas that we must concentrate on as we wend our way into the 21st century. First, how do we plan the kind of investments that will advance transportation, economic development, environmental stewardship and health?

Second, how are we going to pay for transportation? We are under-funding our bridges by about $500 million a year. We have closed several bridges in Massachusetts within the last couple of months, and restricted many others. We have a serious funding deficit here in the state that we must deal with.

Third, how are we going to oversee transportation planning and funding? How are we going to take agencies that were set up years ago as independent fiefdoms—making decisions based on their own institutional needs—and bring them together to make investments that are good for the Commonwealth, not just for the individual agencies? How can we create a system where we are better leveraging the resources we have today? How can we create a system where we have more flexibility in how we subsidize agencies that lose money from agencies that make money?
I come from two places where cross-subsidization happens. It does not happen, for the most part, here in Massachusetts.

How can we squeeze efficiencies out of the institutions that we have? How can we work smarter together? We are doing that through the Mass Mobility Compact, a roundtable of all of the transportation agency heads who have already begun working together. MassHighway happens to have an excellent asset maintenance system. The Turnpike Authority is interested in learning from MassHighway how to improve its system. That is one small example of information-sharing that did not exist before.

There are dozens of other things that I could talk about, but that work has already begun. How do we execute projects better? The transparency issue, the measurement issue, how do we measure what we are doing? And how do we let the public know how we are doing? All this will affect our direction forward.

Martin Capper: Thank you, Secretary Cohen. What has Texas done to develop their transportation strategy, Coby? And perhaps in answering the question, you could also answer these three questions: How does Texas plan? How does Texas pay? How does Texas manage?

Coby Chase: About seven years ago, when our current governor, Rick Perry, was the lieutenant governor, we would have long conversations about what the transportation system of Texas should look like. And what we discussed, and what we still discuss, is that 50 state departments of transportation follow the federal lead, meaning we send our gas taxes to Washington, D.C., and then they redistribute them.

State DOTs follow the federal program. When the federal program is broken, state programs are broken. We align our resources to draw down federal resources. Thus when the building of the Interstate system was winding down, and the federal program lost focus, the state programs lost focus. So in the 1970s and 1980s, we started to see all sorts of new programs that had nothing to do with getting anybody home on time, getting freight moved, or increasing safety. All of a sudden, we were building hiking and bike trails.

We have all these silos of money that are hard to mingle in order to build a roadway. Building roads is easy. We have the world's best engineers associated with the state departments of transportation. They can engineer anything except the financial outcome. However, if you look at the federal system, you have all these different silos of money, and it is hard to move money from one silo to the other.

Texas did not give up on the federal system, but Texas is trying to figure out how to work around the federal system. And we are a high-growth state. Watching Steve Poftak's presentation this morning would have been music to our ears back in Texas. Nobody asks for maintenance money. If someone were to show up at one of our commissioner meetings and ask for maintenance money, we would write a check on the spot. In Texas, it is all about capacity and growth, taking care of our booming regions like Houston, Austin, San Antonio, Dallas, Fort Worth, and El Paso. And to do that, we have to protect our rural areas, where needs are maintenance-driven, and the rural areas are starting to understand that.

We have decided to step back from the federal program, and establish our own goals. In education, everyone is starting to measure results. When the air gets dirty, the EPA applies penalties. However, the federal transportation bills seek no particular outcomes. You cannot stand behind SAFETEA-LU, ISTEA, or TEA-21, and say "Well I understand at the end of this bill, your congestion is going to go down 10 percent," or "Your roads are going to be 'x' percent safer," or "Your air is going to be this much cleaner," or "This many more buses will be purchased."

So our governor and our current chairman, Rick Williamson decided that the state needed to set measurable goals. They are pretty simple. Did this project relieve congestion? Did it increase safety? Has it increased the state's economic strengths? Did it clean the air? Are you maximizing the value of your assets? Are you preserving them longer, and do they last longer? To do that, we have embraced as many tools as we possibly can. Probably the biggest change is regional decision-making, getting decisions out of Washington, D.C. and Austin, Texas.

You know, our large metropolitan regions have the ability to toll themselves. And they should be able to keep that additional revenue there to relieve congestion. We do not care how; they can buy more buses, build more roads, or whatever they like. All of that is better than sending gasoline taxes back to Washington, D.C. Because every time a Texan goes to the gas pump, they build a very nice bridge in New York or Massachusetts. The path money takes has more to do with political power than with the merits of the projects in terms of congestion relief or any other goal.

So if a region in our state tolls itself through a payment-per-mile program, for instance, they can keep that money and use it for congestion relief, or improve transportation between our metropolitan areas. And some of the tools and tactics are private partnerships, concession arrangements, design-build, state infrastructure bank, and pass-through tolling.

We then try to measure the results, whether it reduced congestion, kept the air clean, or enhanced economic strengths. Those questions are harder to answer then they might seem, but that is what we are working on now.

Martin Capper: Thank you, Coby. Paul, I am going to ask you to put on the hat of both the financial and the wider business community here in Massachusetts, and tell us, from that perspective, what is the transportation system that Massachusetts needs?

Paul Haley: Thank you. I think what you are asking me is what is the transportation system that needs to be in place to not only sustain our present economic activity, but what might be able to foster further economic growth. As Joe Giglio pointed out in his opening remarks, our economy in Massachusetts has dramatically changed over the last several decades. When I was in the legislature back in the 1990s, we recognized that the state had shifted from a manufacturing-based economy to more of a service-delivery economy, and so we created a number of tax incentives to keep those companies here.

Until we hold a serious discussion about priorities and how to finance improvements, we will not be able to gain the necessary support of the business community, the general public, and the legislature.

For example, if we argue that our metropolitan areas drive the economy overall, then we have to determine how to get people in and out of those metropolitan areas. Do we emphasize more public transportation and affordable quality service? If that is the case, how do we direct resources there? What type of operational construct do we put in place to deliver those services? And I think that is a fundamental question, and one that is key to getting the legislative support to go along with making these changes.

In New York they have done this very thing. They have decided to cross-subsidize the public transit system by taxing those driving into the city. They are charging automobiles $9 to cross the Triboro Bridge, although it is only about $2.50 per vehicle to pay operations and maintenance on that bridge.

Martin Capper: Fred, could you talk about the strategy that you adopted, and then, with the benefit of hindsight, what were the long-term implications of those strategies?

Fred Salvucci: Thank you very much. That is a good question. Joe correctly reminded us that while tactics are important, strategy is more important. So while I probably disagree on some of his strategy and preferred tactics, I agree with him on the sequence of treatment.

Before I talk about the strategy I adopted back then, I want to make a couple of brief points about stances others have adopted here. Strategy should focus on benefits, not costs. The costs are means to an end, and it is the end that we should be discussing. I think it is important, of course, to set priorities. Nevertheless, the constant resetting of priorities inhibits forming strategy and getting where we want to go.

I am thrilled that the Pioneer Institute, an organization I often disagree with, chose to put the Longfellow Bridge on the cover of this recent document. However, I would disagree that the biggest problem with the Longfellow is that it would have been more cost-effective to manage differently. The fundamental issue we confront is that if the Longfellow Bridge fails, we will lose the Red Line, and that would be a disaster.

At the moment, the DCR is more concerned with Storrow Drive than the Longfellow Bridge. However, if the Storrow Drive Tunnel does not work, we reroute traffic, and stand in traffic a longer time. The loss of the Longfellow Bridge, on the other hand, would be a calamity. So I think if we do not focus the debate on benefits more than costs, we will end up making the wrong choices.

I have enormous respect for Secretary Cohen. I was in his position. It has all the accountability with little control of resources, a perfect situation to become the object of scapegoating when things fail. For example, let us consider the MBTA dilemma.

If you do not run enough service, you have a public safety problem. Try riding the Green Line to a Red Sox game. It is not comfortable and it is not safe. You can cut the operating budget so you can fund maintenance; you should fund maintenance. Track conditions are not what they should be, the wheel base is not what it should be. There is no good choice to make when there is not enough money to properly maintain and operate the service.

And I purposely include operation in that, because we tend to forget that whether it is overcrowding on the MBTA or MassHighway being forced to close bridges, it is better that the bridge does not fall into the river with you and me on it. On the other hand, when that bridge is out, it means that the ambulance and the fire truck cannot get where they are going in time. So there are no good choices in an underfunded system. We have a system that is systematically underfunding maintenance and operation. And I also like to build things.

I would also like to remind my friend from Texas that he may feel some of his gas tax dollars ended up in Boston, but I would remind him that the money we spend for the gasoline is ending up in Texas. Moreover, Massachusetts residents were paying their federal gas taxes for decades to build the Interstate highways of Texas and California, after we had foolishly or entrepreneurially built Route 128, the Central Artery, and the Mass Pike with our own resources.

Eisenhower put together a program that in 30 years created the Interstate Highway System, an incredible achievement. In the subsequent 20 years, we have not managed to maintain it. That is why that bridge in Minnesota fell down. We can do great things if we focus on them, and we have to do them in reasonable periods. Our current problem is that we have not been focusing on what it is we are trying to do, but rather dueling over who is paying the bills, quibbling over this piece and that piece. I agree that we have to focus more tightly on maintenance. That will entail changes in the federal program to establish a different set of incentives. The federal role is crucial.

To the original question, what was my strategy? Eisenhower's program provided 90 percent of the funds to build Interstate highways. We had an Interstate highway we had built with our money, the Central Artery, which not only was falling down but also was ugly and did not move traffic. We had another Interstate highway, I-90, that only connected to Logan Airport on paper. And I looked at the law and said "You know, we're part of the United States of America, and we're entitled to the federal funds to rebuild that dysfunctional Central Artery so that it is wide enough to function and below ground so it doesn't destroy the city, and to connect I-90 to Logan. We are not just going to build it, we are going to worry, at the front end, about how to maintain and operate it, and how to keep it functioning for the long haul."

We spent a lot of money and attention with the business community in the late 1980s on the "Lazard Freres Report," which the public thought was about the question of how to pay for the construction. However, that was a trivial question. Once federal eligibility was granted for the money, the money would be there. The big headache I had was how are we ever going to get appropriations out of a representative from Pittsfield to pay for the extraordinary maintenance cost for two tunnels in Boston?

The recommendation in that report was that there should be an operator at the table. MassHighway knew that they would not be the agency operating the Big Dig when it was done. So you had the very dangerous situation of an agency that knew it would not be accountable for the maintenance presiding over the design and construction of the facility.

So the recommendation was to designate either the Port Authority or the Turnpike Authority or a combination of the two, so that the toll revenues would go directly to the maintenance function without depending on the legislature. Establish a revenue stream that is dedicated to that purpose. That was the top recommendation I made to Governor Weld in the transition meeting between the Dukakis and the Weld administrations. In his charming way, Governor Weld said, "Gee, that's interesting. That's absolutely right."

I told them, "The engineers are going to tell you

'Don't worry about maintenance. It is not built yet, there is nothing to maintain.' I guarantee you, if you defer the decision on who is going to take care of this, there will be so many mistakes embedded in the design by people who are facilitating the construction, there'll be big maintenance problems, because no one thought it was their job to worry about that."

Seven years later they designated the Turnpike Authority, and they turned the financing plan on its head. The finance plan was to build with state and federal capital funds, reserving tolls for operation and maintenance. They turned it on its head, dedicating the revenue streams to debt service for capital, or more truthfully, to deferred bonds to hide the cost overruns, which were partly caused because the operator was no longer at the table.

Let me try to support this allegation. There were two $6 billion projects on the table, based on 1990 estimates. One was the Big Dig, the other was the Boston Harbor cleanup. By the year 2000, the Harbor cleanup was completed, and slightly below budget, thanks to the MWRA, which had an aggressive management structure and owned the project: planning, construction, operations, and maintenance. The Big Dig is still not done, and is expected to cost two and one-half times the $6 billion.

Another element of the plan was that improved public transportation is an essential component of the Big Dig. If you do not expand and improve public transportation, we'll have gridlock again, and billions of dollars will be wasted. That is why I signed the Conservation Law Foundation agreement.

To disagree with my friend Joe Giglio, yes the EPA has the responsibility and the authority to hold one accountable. But the EPA, which was the agency that had the power to slow down the federal highway funds if we were in violation of the environmental and transit commitments, failed to act despite the lack of progress on the Green Line extension to Somerville and the Red Line to Blue Line connection, or when transit fares rose faster than the rate of inflation. We now have more auto capacity in downtown Boston. However, if we refill it too quickly, we will be back in gridlock.

Again, the point here is not the cost, but rather the benefits. The big benefit is a system that functions. The Big Dig is not finished. If we do not complete the mass transit projects, if we do not unwind the flawed financial structure so that Secretary Cohen has the tools to maintain this very expensive piece of infrastructure, it will all have been wasted. So strategy is important, and there have to be effective tactics to match the strategy.

Those are some of the things I had in mind in the 1980s, and did my best to put them in place, but it did not happen in the 1990s. Nevertheless, we are where we are, and we need to revisit the issue of how to properly maintain and operate the Big Dig, the transit system, and the statewide system.

Bernard cannot do his job without a very different attitude out of the budget people. We need to get him a reasonable budget so that he can run a vigorous operation at MassHighway. He should not be paying engineers out of bond funds. You can give him a $24 billion check tomorrow, and he will not get anything done in the next several years, because he does not have the engineers to do the necessary engineering.

There is going to be a report this week that will call for more financial resources. We need more money, but we also need a plan, and we also need some reform on the operating budget side that allows Bernard to run reasonable levels of service at the MBTA. That means you need debt relief. The MBTA cannot carry its debt, provide reasonable levels of service, and maintain its assets.

Martin Capper: Texas has been in the transportation news a lot with its innovative financing tools including public-private and public-public partnerships. Tell us a little bit about that.

Coby Chase: Thank you. First, Texas is not advocating eliminating a role for the federal government. What is interesting is that Texas and Massachusetts go at it like cats and dogs over rate of return during the transportation bill discussions. We are trying to get out of that discussion, because it just is not productive. There is not any more money. Because Massachusetts has an older infrastructure than Texas, it has a greater need for maintenance.

What we are trying to encourage the federal government to do is to create new tools that take pressure off the gas tax system, so Texas can do what it needs to do, and Massachusetts can do what it needs to do. However, they are not there yet. In any case, the fight at the next reauthorization bill should not be as heated. There is just not enough extra money to make that work.

However, we will strongly encourage the federal government and Congress to allow states to conduct experiments with outcomes. When Congressmen Oberstar and DeFazio from Oregon sent that letter to 50 governors and 50 DOTs, telling them not to look at public-private partnerships, making us feel dirty for talking to Wall Street, we took great offense. Governor Perry fired back and said, "For once Texas isn't really interested in increasing the gas tax, just to see it dropped into an unfocused federal program."

So you will see Texas back away from the donor-donee state fight, but you will also see us be very aggressive in terms of new tools. We do believe there is a role for the federal government and the federal gas tax, of course, but that may not be what ends up paying for maintenance.

In Texas, we have been trying many experiments. Some are working, some have been scaled back a bit, because they were, well, not working. We have very openly embraced public-private partnerships, bringing private equity into the public transportation system. We have established many protections in there for the driver, the public, and the state.

Many of you probably know we have a Spanish company, Cintra, that is going to operate, or design and build and maintain and operate and finance, some large pieces of infrastructure in Texas. That kicked off some xenophobia. However, we are proceeding with public-private partnerships and the use of private equity.

We have introduced competition into a system that never had competition before. We do not like monopolies, whether in the Texas Department of Transportation, which used to have a lock on how projects were delivered—it was us or no highway—or with our regional toll providers. So we have opened it up to competition. That process was messy, but that is the democratic way.

We did a concession procurement for State Highway 121 north of Dallas, in Denton and Collin Counties, and Cintra was the winner. It proposed that it would build, maintain, and operate a toll road that would have otherwise not have been built for 25 years, and would pay the region. Two billion dollars would stay there, not filter through Washington or Austin, enough to build many other projects in the area. It would pay $25 million a year at least, and if traffic counts rose, it would pay it for more than 50 years.

Then the local toll provider, the North Texas Tollway Authority, asked if it could try to better the bid. And they beat Cintra's deal by a couple hundred million dollars. The state would only intervene if it looked like they started to build up a big balance, rather than spending the money on congestion relief or cleaning the air, the goals stated earlier.

The big difference between the two proposals was who assumes the risk for the money that had been promised to the region. In the private model, Cintra writes the check up front, and the stockholders assume the risk. If traffic does not meet the projections, given that there are caps on increasing toll rates, Cintra and its shareholders lose. In the public financing model, the Tollway Authority raises its rates on everybody else driving on the roads on its system in that region. That is a difficult decision to make and that is our biggest struggle right now.

We currently have nine different projects in the pipeline that we will be offering up through concessions. I do not remember the exact dollar figure, but they are spread around the state. We use mechanisms like shadow tolling. That has been one of our most popular programs. We call it pass-through financing or pass-through tolling, but there is actually no tolling involved. How it works is that a community says that it wants to build a road for which it lacks the financial resources. What we will do is to dedicate some of our state road money to pay off the debt over time, based on traffic counts, so we count traffic. If the traffic is higher, we pay more money. If the traffic is lower, we will pay less money. There is a ceiling and a floor for that. This has actually kick-started a lot of projects around the state.

We also have a state infrastructure bank. We also are putting a lot of competitive pressure on our regional tolling agencies to look at 87 different projects worth $54 billion in congestion relief in Texas. I would be surprised if all 87 come to fruition as toll roads, but we are working with our partners around the state to see if that is how they want to do it, capture the revenue, keep it in their area.

That's where we stand now. We would like the federal government to allow us to experiment as long as we are meeting national and statewide goals.

Martin Capper: Paul, again, from the financial community perspective, and with your background in the legislature, what do you see is the potential for financial innovation to help build and maintain the transportation system in Massachusetts?

Paul Haley: Well, there are two aspects to the challenge. The first, as Fred articulated, is maintenance. Here is the problem: the governor proposes the budget, but ultimately the legislature decides what goes into the operating budget. The governor, of course, has veto power, but he cannot add any spending. Legislators have a horizon of only two years, and so approving new projects means a lot more to them than long-term issues like maintenance. As Steve knows, we tried to dedicate some of the surpluses we had in the late 1990s to build maintenance into the operating budget, but as soon as budgets tightened, it was cut. It may be time to revisit this. We have both education and healthcare reform behind us, and the people in the legislature who have responsibility for transportation are fearful of a bridge collapsing here like in Minnesota.

Coby had interesting things to say about innovative ways to raise resources. Our firm has been involved with the North Texas Tolling Authority, and in similar efforts in other jurisdictions. There is real interest in imposing user fees, asking those who use the system most to bear the cost of maintenance and improvements. The Federal Secretary of Transportation, Mary Peters, has suggested that federal money might be available for pilot programs that include tolling. Governor Rendell is looking seriously at tolling and both public-public and public-private partnerships in Pennsylvania. They have 6,000 bridges in dire need of repair, and so they're under enormous financial pressure.

There is a precedent to using private capital in Massachusetts. In 2000, we approved the construction of another lane on all the bridges along Route 3, for 21 miles from Burlington to the New Hampshire border, with a design-build-finance authorization. We felt comfortable with going that far, though MassHighway is left with responsibility to operate and maintain the roadway.

There is enormous demand on the part of the private sector for these sorts of assets, because they are a source of sustained, recurring revenue. Huge upfront premiums have been expended in Indiana and Chicago for the rights to toll roads. However, how much latitude do you want to give a private concessionaire to raise tolls? Indiana caps increases at two percent. Public entities, as we know, have a difficult time raising prices, though it has been more difficult for the MBTA than for the MWRA.

In conjunction with making the case for those additional resources, there should also be efforts to save costs and an equitable system of collecting revenue. One of the initiatives in Illinois was to put better technology into the system, open-road tolling. That better apportions the burden, and makes it possible to reduce the price to those who travel off-hours. In Illinois, for example, they generated over $5 billion in additional capital revenues, and did not raise tolls on the commuting public. What they said was, “You know, if you’re using the Fast Pass, we will keep your rate at the same level.” Participation went from 37 to 77 percent in three months.

Martin Capper: Thank you, Paul. Fred, what is the potential for some of these innovative financing tools in Massachusetts?

Fred Salvucci: First, two passing points. If I understood the Pioneer presentation correctly, you could program maintenance into the bond issuance for general highway purposes. The legislature could participate in that decision, but it would not be able to decide not to fund maintenance during the annual appropriation process. We would write into the bond covenants that a certain revenue stream be dedicated to maintenance on a five- or ten-year basis. That is an interesting idea.

Second, remember that those who pay tolls get better service. For example, in London, because of congestion charging, the roads actually function for those who are willing to pay tolls, and the buses move instead of being gridlocked. That is what I was saying about keeping the eye on the benefit rather than the cost.

There is a great deal of skepticism about the public process. My suggestion would be that the priority for Massachusetts should be congestion charging for landing fees at Logan Airport, a place where it has been tried before and it vastly improved the quality of the service in and out of Logan. That is why American Airlines supported us when we tried to do that in the 1990s. It could generate a lot of money. I know the current federal rules, which regulate it, but you can change the federal rules. There is a huge benefit potential at Logan. The Airport is actually required to initiate a congestion charge on the landing fees there, under a legal agreement, but they have not been doing it.

I think that would be an excellent opportunity to demonstrate that you could improve quality for airline passengers. The Port Authority also gets a new revenue stream, which they might contribute to the Turnpike Authority for their debt on the Big Dig. After all, the Big Dig is, in part, the driveway to Logan Airport. Moreover, if we want to talk about privatization, then what about selling Logan Airport?

Do not underestimate the complications that can emerge from public-private partnerships. The Romney administration tried to work out a public-private deal on Lechmere Station, which is now trapped in a disagreement between the private developers. The EPA is requiring the state to extend the Green Line to Somerville, which entails relocating Lechmere Station, but until that disagreement emerges from court, Bernard Cohen's hands are tied.

So when you do a public-private partnership, and I think they have their attractions, you have to be careful about fine print and think through what control you are giving up. So while what Texas is doing sounds exciting, we need to examine the fine print, for these kinds of deals can go sour.

Martin Capper: Given what we have heard, Bernard, do you have any further thoughts on what direction the state should be going?

Bernard Cohen: Let me give you a very small example, going back to the notion of building maintenance requirements into general obligation bonds. Today, I probably get half to two-thirds of what everybody knows I need for snow removal. So at the end of the winter, I have to go back to the legislature and hand them a bill and get supplemental funding, which means I can't pay all my bills on time. One of the items on the Turnpike Authority board of directors' agenda next Monday is going to be the routine process of ordering salt for the winter. And I said to them, "What about if you and MassHighway join for a joint procurement? You need salt, they need salt. Why not take advantage of economies of scale?"

And the answer was, "We pay our bills on time. We budget for what we think we need to pay for salt. And we get better pricing because contractors and suppliers know that they're going to get paid in a timely basis. Whereas those who are supplying to MassHighway know that they are not going to get paid on a timely basis, and so they bill the interest costs and the time costs of money into their bids."

If we had adequate and timely funding, we would be saving money on salt, and we would have more money for the Longfellow Bridge and many other facilities around the state, as Steve has pointed out.

Fred is right that we need to more closely examine public-private partnerships, even those, like Lechmere Station, that seem to be models of shared responsibility. We are still at the planning and early design phase in the Green Line extension to Somerville, so the dispute between the private developers has yet to slow us down, but soon it may.

In terms of the broader revenue question, we need predictable and dedicated resources for transportation. Whether it comes through public-private partnerships, or whether it comes through other ways of charging those who use transportation, is a matter we are discussing. The important hurdle is to get to the point where we are not living year-to-year, but can do multi-year planning. I come from another job where we had a five-year horizon on what our capital program was going to be. Our assets are too large and complex in Massachusetts to live from year-to-year.

Martin Capper: Thank you, Secretary. I'd like to open it to the floor for questions.

Q: Thank you. My name is David Begelfer and I am the CEO of the Massachusetts Chapter of the National Association of Industrial and Office Properties. We all know the state transportation system needs a boost in funding, and we are beginning to realize that the bill will dwarf the Big Dig. However, I do not think the public will want to hand over the money unless it thinks it will be well spent. What kind of changes can there be in the system to give some assurance that that money is going to be spent wisely and efficiently?

Bernard Cohen: I would say there are probably four or five things that we need to do, and many of them we have talked about today. One is laying out a vision that focuses on the measurable benefits of what the initial investment will create.

Second, I think we need to focus on maintenance. We need to assure people that a substantial element of the new resources will be dedicated to making sure that we are keeping our infrastructure in a state of good repair.

Third, we need to assure people that this money is going to be used for transportation. It is not going to pay for other worthy but non-transportation needs.

Fourth, we have to think about the way we are organizing the structure here in Massachusetts and look at ways in which we can convince people we are going to be in a position to make better use of the resources we have.

Finally, we need to convince people that we are serious about improving the way we plan and execute projects. We can't promise projects and then expect people to wait 20 years for them to be delivered. Some of that is a money issue, some of that is a culture issue, some of that is a human resource issue. We need to address all of those.

So I think it is a contract, in a way, that we have to offer to those who are going to pay, to say this money will be used well.

Q: How can we get regions to work together? Do we need an informal or formal structure inside the state, among our regions, or perhaps in New England as a whole? How do we get regional and interstate cooperation? Do we need a formal structure? Do we need an informal structure? How do we get regions to talk to each other? Because the corridors are about connectivity. As Fred pointed out about the Interstate Highway System, connecting short distances by bus is no longer sufficient.

Martin Capper: Coby, do you want to pick that up first? Because you talked about your work with the regions.

Coby Chase: We face the same problem in Texas. Our commission has just established County Planning Organizations to let our rural stretches, which are the most disenfranchised areas in the state in terms of transportation, make decisions on whether or not major facilities should be built in their area. We are still at the stage of making appointments, so we are not sure how effective it will be. And do not underestimate the opposition you will face in ceding some control to regions—few who have power will want to give it away.

Martin Capper: Secretary Cohen, do you have any comments?

Bernard Cohen: I mentioned earlier that one of the discussions I have started with MassHighway is how to start decentralizing some of the decisions about priorities, how projects advance, and how quickly they advance. In the past, MassHighway has had a group of people who sit in a room somewhere and make these decisions. The rest of the world finds out about how things are going to happen afterwards. However, as Coby said, we are good at engineering things, but we do not have all the answers in terms of strategy.

I would like to push some of that decision-making back out to the regions, and have them take some responsibility. We have begun talking to the metropolitan planning organizations about this. I think we need to use our MPOs and our metropolitan planning agencies better. And maybe there's a way to bring them together around this issue of regions.

We have, for example, big transportation needs in the western part of the state, and we have big economic interests in the western part of the state.

The western part of the state brings in people who do not necessarily come to other parts of the state. So I think we have to respect the fact that every region has specific transportation needs, and those transportation needs relate to the economic interests of the Commonwealth as a whole.

Q: The fix-it-first policies, innovative financing, public-private partnerships are all promising ways to address supply problems. However, demand is still rising despite a flat population, and in the end what is driving a lot of these problems is local land-use policy that drives up the price of housing and pushes people to more remote places, where they don't have access to mass transit or other alternative modes.

The state has begun, through 40B and 40R, for instance, to start to try to work with some of these programs in a smart-growth toolbox. How much is the state leadership really willing to engage that even more, and to begin to involve communities, and to create a dialogue that works more towards a smart-growth agenda? Do you have any ideas for the future?

Bernard Cohen: Well, we have a process in place to apply the smart-growth lens to requests that we get from all over the state for assistance on economic development and transportation projects. It is a small piece of our overall portfolio, from a dollar point of view. However, it is a model that we ought to be thinking about migrating to the decisions we are making on a larger scale, with bigger projects and lots more dollars. I would say we are not there yet, but I think that we have at least a start, with respect to putting together an approach for some of these smaller grants that do take into account public transportation, pedestrian and bicycle access, smog control. I think the challenge is going to be to take this model, which is at a very small scale, and look to see how we build it out into the bigger realm of bigger projects and bigger dollars.

Thanks to our event sponsors

ITS AMERICA

LEHMAN BROTHERS

Weston&Sampson, Inc.

VHB Vanasse Hangen Brustlin, Inc.

BURNS & LEVINSON LLP
LEGAL COUNSEL AND BUSINESS ADVISORS

“Driving Questions” was also supported by

The American Council of Engineering Companies

and

The American Society of Civil Engineers, Boston Chapter

PIONEER INSTITUTE
PUBLIC POLICY RESEARCH

85 Devonshire Street, 8th Floor, Boston, MA 02109
T: 617.723.2277 | F: 617.723.1880
www.pioneerinstitute.org