

Tools That Pay Off

Value Added in Dollars, Programs, and Services

Thomas Barry, Jr., *Florida Department of Transportation*
William Ankner, *Rhode Island Department of Transportation*
Scott Bernstein, *Center for Neighborhood Technology*

IMPROVING MULTIMODAL OUTCOMES

Thomas Barry, Jr.

At a CEO workshop held yesterday, we had a lot of discussion about how to provide the funding flexibility necessary to support large intermodal projects. I talked to my counterparts from states where none of the revenues that come into the highway account can be spent on public transportation. In contrast, we are blessed in Florida, where we are not only allowed to use funds in a cross-modal fashion but are actually required to. Florida state law requires that at least 15 percent of all state-generated transportation revenues be spent on public transportation. We like to think we were intermodal before it was cool; since 1990, we have spent more than \$370 million on a variety of intermodal projects. We have, for example, seaport projects where we are improving access for passengers and freight into and out of seaports. But probably the crown jewel is our Miami Intermodal Center (MIC). It is an airport project, rail project, highway project, and a consolidation of rental car facilities; it is also a people-mover, and why not throw in a six-lane expressway and 13 million ft² of joint development just for fun? The MIC got one of the first TIFIA loans, and we were one of the first to go through loan negotiations, which was pretty painful—no one wants to be the first. But we are very proud of this project, which is truly intermodal and involves a very diverse funding profile. This \$1.35 bil-

lion project is clearly one of those that you cannot do by yourself.

Of course, you can get intermodal in smaller ways. The Southbend Airport, to me, is a perfect example of a properly sized intermodal center: the railroad comes to an end there, and there is a bus station, a kiss-and-ride, taxi stands, and a small airport; they all function very well together.

Here is another example of a smaller-scale opportunity to think innovatively. We have 20-some individual transit providers in Florida. Each has historically gone out and negotiated contracts for the purchase of buses. One of our folks at the DOT said, why not have the state contract to buy buses to build purchasing power? In just a 2-year period, we have bought 322 buses and saved \$2 million.

As for our seaports, our legislature saw fit to provide state funds for 14 deep-water ports in Florida. We blend a pay-as-you-go program with bonding, each of which builds on a separate revenue stream. Every dollar must be matched by the ports. We have bonded more than \$400 million worth of improvements on port properties, and more than \$600 million worth of activity is ongoing at Florida's ports.

On the transit side, Orlando provides a dedicated busway that serves as a free circulator in the city area. We think this has been a big success. Down in Miami-Dade, we converted an old railroad to an exclusive busway. This went a bit against the traditional thinking that former rail lines should be used for light rail. But it is incredibly successful, and we are looking to extend it farther south.

People often ask me why it is so much more difficult to sell light rail than highways. One of the reasons is that you have to build a fully functional segment of a light rail system before it can operate with any efficiency. In contrast, you can build highways on a much more incremental basis. So, I think that is the challenge we face in Florida and in other places. The lesson is that as you make those incremental investments, don't preclude the eventual addition of a light rail component to your transportation network. Orlando offers a good example, because local community support for a light rail system fell apart a while back, providing a good case study on why not to plan a project via the local newspaper. But as we look ahead, we have to make sure to include a means to recognize a role for light rail or some other form of transportation in the investments we make. We are struggling with the same questions for Interstate 4 between Tampa and Orlando: how do we build in a way that ultimately accommodates a high-speed, intercity rail link within our rights-of-way?

To that end, we at the Florida DOT have been very pleased with the support we have received from our governor and legislature. Our legislature just passed an initiative that will advance more than \$6 billion worth of work on Florida's major highways between now and 2010. These improvements will focus primarily on freight movement, which is an increasing priority for metropolitan planning organizations (MPOs) and other planning agencies. We have also issued more than \$900 million worth of right-of-way and bridge bonds. Those right-of-way bonds can be used on intermodal facilities and projects to provide better access to airports and seaports over the next 10 years or so.

We are also one of the four lucky states that were able to keep the opportunity to capitalize our SIB with federal funding under TEA-21, and we support reopening the SIB capitalization opportunity to all states. I should note that our SIB includes an active transit account as well as the highway account. Overall, the leveraging numbers are pretty impressive: the SIB has awarded about \$228 million to almost \$2 billion worth of projects that we have been able to add to or accelerate within our 5-year plan. We have done SIB loans for external groups like expressway authorities and internally to our own turnpike district to accelerate those projects.

Perhaps the best example is a toll road that provides the missing link of our eastern beltway around Orlando. It is a \$265 million project that the turnpike district could not finance on its own. Through some revolving loans, some right-of-way bonds, some federal dollars at the interchange with I-4, a SIB loan, and local dollars, that missing link is now under construction. In about 3 years we will have a complete beltway around the eastern part of Orlando.

That is just a quick summary of the projects we have under way. I invite you to visit our Internet site, where you can get a lot more information about what is going on at Florida DOT.

EXPANDING THE PIE: STATE PERSPECTIVE

William Ankner

I would like to talk about looking at our transportation system as a system. We in Rhode Island have a mid-sized facility called the Warwick Train Station. It is near T. F. Green Airport—the major airport in Rhode Island. The airport has grown to 5.5 million passengers per year and has been in operation for about 7 years. It has several unique features. The first is that it is very close to—just 1,700 ft from—the Northeast Corridor, which is the major Amtrak rail link that connects Boston to Washington, D.C. It is one-third of a mile from Interstate 95, the major north-south Interstate corridor on the east coast. It is also about 12 miles from Providence, which is not only our capital but also the major economic engine within the state.

The state is in the process of building a rail freight project along the Northeast Corridor so that we can run double-stack rail container traffic and triple-stack auto carriers from our port area into Worcester, Massachusetts, and then going west. That will run right next to the Northeast Corridor and go right past what is soon to be a joint station serving Warwick Train Station and Green Airport.

We are trying to combine a variety of strategies on this project. We are building a train station and a people-mover and will be connecting those two facilities. We are seeing an increase in capacity on our roads, particularly on I-95, so we are looking at other ways to expand capacity and improve mobility without necessarily increasing highway capacity. Our goal will be to increase traffic to the airport not by automobile, but by train.

With this objective in mind, we need to think of the customer. Most of our customers depart the airport between 5:30 and 7:00 a.m. and return between 6:00 and 11:00 p.m. Amtrak does not run very good service during that morning slot, but the MBTA (Boston's transit service) does run commuter service. So we are looking at ways to bring MBTA down from Boston on a regular basis to serve the morning end of this peak period. It does not make any sense at all for MBTA to provide the evening service, since there is not much of a reverse commute. So for this segment, we will turn to

Amtrak. One snag remains, however: Amtrak charges \$30.00 to go from the airport to Boston, whereas MBTA charges only \$8.00—a major gap in price. We are currently seeking a way to blend the rates and are hoping for a good deal of success on that.

We are also designing the station to be intermodal not only in the context of rail connections, but also in terms of intercity bus service. Greyhound is considering whether to provide funding to permit some design concepts they consider critical to their operations. They are also willing to pay for some of the operating costs. At the same time we are working with our local bus company to create a hub for local commuters as well as longer-distance commuters.

Tom Barry posed a question about our capacity to make transit investments as easily as we make highway investments. The systems nature of transit that Tom raised is a key issue, but another important consideration is the frequency and reliability of transit service. In most cases those things mean more to our customers than does price. So, if we can get service to run every 20 minutes and it is reliable, then I think we can start to move people from their automobiles.

As for financing, so far we have been able to get \$25 million under TEA-21 for this series of investments. But because we're dealing with a brownfields site, the project will cost a bit more. We will be looking at a good bit of economic development on the 70 acres around the station and the airport, for which structured parking will be needed. So we are thinking of putting the rail station right into a structured parking garage. This would allow us to bring all of the rental car business into that parking structure and use the revenue stream from rental cars as a way of financing both the construction and the operation of the people-mover. We also believe we will be able to tie in to the economic development of the area to help finance this project.

In another example, we in Rhode Island have had a problem with our rest areas on Interstate 295. They have been closed since the mid-1980s mainly because of nighttime activities involving drugs and prostitution. However, FHWA wanted us to open them, primarily because of safety issues associated with truck traffic. How could we come up with a financing source that could pay for the ongoing operating costs of our rest areas?

Well, our northbound rest area is about a mile from a new bike path that is part of a state park. Now, you all know that we cannot use our rest areas to make money; any food sales, for example, must be made through vending machines. So, with the cooperation of FHWA, we are giving most of the land that served as the rest area to the state Department of Environmental Management (DEM), which is responsible for running the state park. By giving the property to DEM and

incorporating it into the state park system, there will be no further restrictions on the land's capacity to generate income. Through DEM we will offer a restaurant and a place where you can rent bicycles and skateboards. We will connect this property directly to the bike path. We believe that all the revenue generated from the services provided at the facility will be sufficient not only to keep the facility open on a 24-hour basis but also to allow us to reopen the rest area and pay police and other operating costs necessary to keep the areas safe and clean.

In closing, I would like to point to two issues. The first is regionalism and its link to intermodalism. On the east coast we have 11 states, each of which prides itself on its independence. But a lot of our problems are not just state related; rather, they are regional in nature. We have to start looking more effectively at corridors. We are doing a bit of that with NAFTA, but we need to start looking at our transportation system in a regional context more regularly. We are going to have to start looking at our modes not as separate silos, but rather as integrated transportation systems. Second, I believe that state infrastructure can serve as a powerful model for the future. In my view states should be getting federal funding in the form of up-front cash rather than as a reimbursement, and more tax dollars should come into the transportation system at the beginning of an authorization period. This would allow the states to invest that cash and obtain a stream of revenues from that investment.

HOW TO PULL RESOURCES OUT OF THIN AIR: A LOCAL AND REGIONAL PERSPECTIVE

Scott Bernstein

I think the central question we face is how to innovatively finance a future that we can all live with—not just to get things built or address our 20-year-old pipeline of backlog projects—but to actually make our transportation systems work. That is going to take some real innovation.

I would like to talk about some examples of ways to pull value out of the economy in a manner that helps us meet our transportation goals and does not rely exclusively on traditional sources of revenue. To do this, I would like to start with six observations about what transportation costs in America today. First, of the gross national product of \$8.3 trillion, roughly 16 percent, or \$1.3 trillion, is for transportation—that comprises public and private, capital and operating, and the

movement of goods and people. Of that \$1.3 trillion, only one-tenth is public financing and investment and expenditures, and of that public part, only one-third is federal. So less than 3 percent of the total transportation expenditure in the United States comes from any federal source—TEA-21, ISTEA leftovers, the aviation stuff, and everything else rolled together.

Second, people are willing to substitute for current behavior. Firms like UPS are profitable precisely because e-commerce works for people; people have proved willing to substitute their own personal shopping habits for a new method of purchasing and transporting goods.

Third, transportation is expensive. Personal transportation is the second-highest household expenditure in metropolitan households, right after housing. Two studies are coming out in the next 2 months—one from the Surface Transportation Policy Project (STPP) and one from Brookings—and they show that in every metropolitan area of the United States, housing accounts for 30 to 35 percent of household expenditures. Transportation's share ranges all the way from 12 percent in New York to 24 percent in Dallas.

Fourth, if you add housing and transportation together—and it is hard to imagine separating the two—they account for more than half of household expenditures. Transportation demand varies with density, convenience, accessibility, and the quality of the transportation alternatives.

Fifth, most household transportation expenditures on the personal side are for vehicles and related services. If you want to help people beat the high cost of transportation, it can't happen if your vision of the future involves two-, three-, and four-car households. Exclusively for vehicles, annual costs range from \$5,000 per household in the greater New York metropolitan region (including the very low-vehicle-demand part of Manhattan) all the way up to \$10,000 or \$11,000 in Texas metropolitan areas today. Multiply those figures by the millions of vehicles in this country, and you will see where much of the money spent on transportation is going.

Finally, vehicle expenditures are a poor investment. They are personal property that depreciates rather rapidly over time. They entail extremely high operating costs. And they impose huge externalities in terms of noise congestion, public health costs, and the environment.

I will contrast those characteristics with those of investment in housing. With housing, you have an appreciating asset. Although it is not cheap to operate and maintain a home, the costs are very low compared with the cost of purchase. And the externalities of housing are negligible. At the same time, home ownership has more benefits than you have time to talk about.

So an interesting question becomes—if on the face of it is a smarter investment to drive less, own fewer vehi-

cles, and put more money into housing, why doesn't it happen? Well, it doesn't happen largely because of the arcane rules that go into mortgage financing.

We all grew up being told that roughly one-quarter of your monthly expenditures should go into housing, to reflect what are supposed to be the fixed expenses of housing in a particular location. Some of us began to think about a way to factor the fixed benefits into that figure. The Center for Neighborhood Technology, STPP, and the Natural Resources Defense Council started to do some work to build on the hypothesis that people who live in more accessible and convenient places drive less. The question was, How much less? and for what reasons? Does it have to do with density? convenience? transit access? access to employment? Through our research we looked at propensity to drive as measured by vehicle ownership per household, vehicle miles traveled per household per year, and transit use. We found that on the average, living in a smarter place that features such characteristics as density, shopping, school, and access to good transit saves about \$400 per household per month in total.

Using these figures, we went to Fannie Mae and asked how much those savings are worth. The answer was the ability to purchase a house worth \$60,000 more. Then, being a little conservative, they decided to treat that \$400 per month as income instead of true savings, and it worked out to \$35,000 per household. In other words, if there was a mortgage that counted those savings as real, you could, by virtue of the right location and the transportation savings that result, get a loan for \$35,000 more for the same income.

Fannie Mae agreed to start buying mortgages underwritten using this logic starting this past May in Chicago, with three banks participating in the experiment. Every day since, we have qualified a new home owner who otherwise would not have qualified. The approach has now been approved for testing in San Francisco, Los Angeles, and Seattle, and the same sort of scorekeeping was started in Portland, Miami, and one or two other places. The newly established Institute for Location Efficiency will standardize this approach in a way to build confidence in the analytics.

Here is one other number before I move on to the other examples. Every day in America 9,700 people apply for a first-time mortgage, and 3,000 are rejected. The Number 1 reason for rejection is too much debt for automobiles. So, if you could deal with that, you could boost the home ownership rate in the United States overall by 1 to 2 percent per year once these location-efficient mortgages become a universal system.

Other initiatives on the research and development agenda include, for example, UPASS systems, which involve a generalized bulk purchase of prepaid transit passes. They were originally invented by commuter rail-

roads after the Civil War to jump-start commuter railroads. The railroads agreed to discount passes in exchange for either monthly ride agreements or for number of passes bought, or both. Cities and universities picked up on it. Almost 60 major public universities now have UPASS programs.

Transit-oriented development is another key area. I was fascinated to hear the discussion about 63-20 corporations this morning because I am familiar with those being used for housing and community development in general. But it seems to me that this could be deployed for the thousands of communities across the country that are trying to do a version of transit-oriented development for things as small as a bus stop or as complicated as comprehensive community economic development.

In Miami, for example, we can observe the case of the 79th Street corridor initiative, where an existing intermodal facility is proposed to be tied together with Amtrak in a mile-long corridor of commercial facilities. They are actually trying to affect travel demand in a whole corridor and capture the value there for a relatively low-income community, and I think it has a lot of promise. The idea of putting innovative finance behind a place as opposed to behind a mode of transport, and then using that place to capture the interest of banks, secondary markets, insurers, and municipalities that are already committed to that location, illustrates a means to leverage financing that is quite different from what we heard about this morning.

There are some lessons in all of this. The first is that it pays to take the time to understand transportation

benefits in a geographic fashion, rather than simply focusing on the cost of transportation service or the benefits as measured only in terms of congestion management and traffic flow improvements. Second, somebody needs to start investigating nationally, perhaps through TRB and locally through states and MPOs and others, four questions. First, how do transportation expenditures actually affect assets? How do they affect the balance sheets of households? How do they affect the balance sheet of a state DOT? Second, what might motivate people to believe that if you build it, they will come; if you make it available, they will pay? Third, how can we best aggregate demand? UPASSes and other employer-assisted transportation and housing programs, even location-efficient mortgages, are all functions of being able to work with organizations that can actually build demand. You cannot build a supply of transportation services without knowing where your demand and willingness to pay reside. And fourth, how do we become more like investment bankers? Instead of lining up projects and dealing with them in an incremental fashion, how can we show how important it is to help get the commitments to finance a comprehensive connected future?

To close, I think that innovative finance is obviously an interesting way to produce a lot more bricks and mortar for very large facilities. But I think it can also be a way to make the most of the investments that we already have. There are a lot of resources out there; we need to figure out how to crack this code together.