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## **Is Rail Transit Right For Your Community? Asking the Right Questions; Measuring the Benefits**

an STPP Informational Paper

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In May of 1995, the Federal Transit Administration reported to Congress that seventy five projects were in some phase of the federal process for fixed guideway funding under Section 3 of the Federal Transit Act. This list is by no means complete, as it does not include projects slated only for state and local funding or regular formula funding. And the list includes many projects no longer being actively pursued. Nonetheless, it is clear that many (one is tempted to say most) metropolitan areas are considering some form of rail transit project at this time. This huge demand for rail is not met by discretionary federal funding under Section 3 New Starts, which has not grown commensurate with demand. That federal funding for rail has not kept pace with the interest in building it may be due to two factors -- an attempt by the FTA in the Eighties to kill the program which resulted in a report called the Pickrell Report; and the subsequent effort funded partly by the Highway User Federation to send economists and other rail opponents around the country to exploit the Pickrell Report's findings. Every city proposing a rail alternatives analysis has had to deal with these speakers, all of whom cite the FTA report and all of whom conclude that rail transit investment is not justified.

Is there a response to the criticisms levied against transit by these evangelistic naysayers? Can or should every city try to respond to the criticisms of overblown promises, out of control costs and unrealized benefits? I'd like to propose a strategy for seeing that fixed guideway alternatives get a fair shake in the analysis process and a fair hearing in the debate. The Surface Transportation Policy Project has been looking at rail systems around the country to see what common factors enable them to succeed. What I'd like to do today is define some of these factors, list rail's potential benefits, and hopefully begin to provide a framework for deciding if the rail investment is right for a community.

### **Asking the Wrong Questions**

When rail detractors come to a city, they are drawn not only by their speaking fees, but also by their conviction that rail transit needs to be sacrificed on the altar of cost-effectiveness measured in the most narrow terms. In most cases they use the 1990

FTA report authored by Dr. Pickrell as the basis for their conclusion that rail transit doesn't work anywhere. In fact the original FTA report proves nothing of the kind. In it, Dr. Pickrell reviewed forecasting and estimating in the early stages of planning for ten rail projects around the country and compared these early numbers with construction costs and ridership a few years after the systems were opened. The explicit objective of the report was to make recommendations on forecasting and planning techniques to improve the federal funding and selection process -- not to evaluate whether rail works or not. However the figures cited in the report have been used by a host of people, mainly economists, to build cases against rail. I won't attempt to go into the lively debates about the report's methodology (if you want to read the critiques one has been authored by Jesse Simon of Los Angeles Metropolitan Transportation Authority and another by the American Public Transit Association), because it is easy to get trapped on the slippery slopes of data analysis. The rail detractors are simply proposing a biased and wrongheaded analytical framework for evaluating rail's costs and benefits. Another framework needs to be proposed.

These are the questions asked by the FTA report and used to build the case by the many who have followed it.

1. Were planning estimates of construction cost accurate? And by implication, if they were not, did rail proponents seek to mislead the public? The FTA report looked at cost estimates in the planning phase, not in the preliminary engineering phase of the project and found that costs were underestimated. As any one used to the construction process know, this is typical of big projects -- environmental problems and mitigation, construction setbacks and the like all contribute to costs growing as projects get designed. This problem is not unique to the transit industry -- the Interstate System had to go through a triennial process of revising the cost estimate upward. In 1990, the voters of California had to approve a gas tax increase in large part to provide \$3.5 billion in funds to pay for the increase in the cost estimate of highway projects approved in 1988. Clearly, we can't evaluate a technology on the basis of early estimates. Wrong question!

2. Were early estimates of ridership accurate? The FTA report looked at early ridership forecasts, not the forecasts used to execute federal grants, and found that the systems studied had not achieved future ridership forecast soon after opening. In one case the report compared estimated ridership in 1988 with projected ridership in the year 2000. Beyond the obvious problem of comparing apples to oranges, rail is a long term investment and the ridership trends may develop over a longer time frame. It took the BART system far longer than projected to achieve its ridership goals, but it did and now it exceeds them every day. Again looking at the Interstate, it is doubtful whether many elements of the rural Interstate have ever developed the traffic necessary to justify a four lane arterial, let alone a four lane divided freeway. But that's not why we built the Interstate: we built it as an economic development tool and rural states will argue long and hard for their Interstate and National Highway System mileage. In fact a recent study of the proposed National Highway System high priority corridors by the University of North Carolina found that none of them were justified by intercity travel projections.

We build transportation facilities to accomplish many objectives, not all of which are measured by seeing whether early ridership estimates are accurate. Again, wrong question!

3. Third, the report looked at operating costs and asked whether system wide operating costs had declined as a result of the rail investment. This criterion presumes that the only reason to make a rail investment is to achieve some efficiency of scale, rather than to achieve a higher level or quality of service, or achieve economic development or congestion relief goals. It also presumed that the new rail systems were in some way an application of rail technologies in places where they didn't fit -- that new rail cities were less efficient places to employ rail than older cities where rail could be made to work. Our review of newer rail systems showed that operating subsidies per passenger for newer rail systems compare favorably with transit in general and with transit in older, more traditional rail cities. In fact, newer light rail systems in San Diego, Portland and Sacramento operate at a cost per passenger mile below or at the national average of all light rail systems -- the San Diego Trolley operates at half the national average. The newer urban heavy rail systems in the San Francisco Bay Area and the Washington, DC area similarly operate below the national average in cost per passenger mile. Clearly its not true that the new systems are less effective than old rail systems. Wrong question again!

Many rail opponents argue new rail systems are less effective than bus systems. In fact a national comparison reveals that the cost per passenger mile of both light and heavy rail systems opened is lower than the national average of all bus and rail transit, with the single exception of the Los Angeles system, which has extraordinarily high security costs. Wrong again!

Rail opponents use these three arguments to point the way to a conclusion: because not as many people ride rail as planners say, it costs more to build and it costs more to operate than originally planned. Therefore, say the opponents, let's stick with the status quo.

### **Asking the Right Questions**

Rail transit is part of an overall development and accessibility strategy for your community. The questions Pickrell asks are only the right questions if local leaders are pursuing rail transit as a stand-alone alternative to delivering mobility in a specific corridor. This is rarely the case. Instead leaders pursue rail development for a host of reasons including overall regional growth management, promoting growth and development in specific areas of the community, supporting overall accessibility goals on a system wide basis, meeting environmental and quality of life objectives and seeking to relieve congestion or accommodate future growth in auto traffic. Rail should be pursued in an integrated fashion, in concert with a host of other activities. Its success needs to be evaluated in terms of this diverse set of benefits. Secondly, as economist David Lewis has noted in his report *Unsticking Traffic: When Transit Works and Why* : "Although mass transit systems present clear evidence of driving up population

densities and thereby reducing travel access times, such changes occur over many years, even decades. Thus new investments in transit must be nurtured and sustained over many years. . ." Rail is a long term investment, and evaluating it at three years of age or even five years of age is like judging a human infant at that age -- it is mostly potential. The real impact of rail transit needs to be looked at over the long term -- as a fifty year investment.

These are some of the right questions to ask as you are considering rail transit investment in your community:

Is rail transit being pursued as part of a comprehensive strategy for accessibility and mobility? Will it provide competitive travel times in a congested corridor, or provide capacity in a corridor where additional highway capacity is constrained? Is the rail link being integrated into the existing transit and paratransit service in a comprehensive way -- operations, service and fares? Are the needs of pedestrians for system access being balanced by those who drive to the stations? Rail transit can provide a competitive alternative to the automobile and in some corridors a lifeline alternative to the auto -- witness the BART system in the 1989 earthquake in the San Francisco Bay Area. If properly integrated with bus service, fixed guideway systems can improve overall performance and reduce travel times for transit users. And if properly planned, rail service can relieve highway congestion, providing for overall increases in people carried in congested corridors.

Is rail investment being pursued as part of an integrated land use and growth management plan for the region? Are local leaders willing to direct future growth to the vicinity of the rail system by changing zoning to allow additional density and by protecting open space in areas not served by rail? Are communities developing station area specific plans which integrate mixed use development, including housing in the vicinity of the rail system? Are pedestrian and bicycle accessways a key part of the plan? Child care facilities? Service retail, including convenience stores and cleaners? Are government agencies willing to commit themselves to building their facilities, both those with substantial numbers of employees and those serving the public, within walking distance of the rail system?

Is the rail corridor one which has significant levels of existing demand? Does it support or maintain existing centers of activity, such as traditional downtowns, special event sites or nodes of development? Is the technology proposed appropriate to travel characteristics in the corridor?

Does the community support the system? Do business leaders support the system? Are voters and elected officials willing to commit local funds to build the system? Is rail transit part of an overall environmental strategy for the region? Have communities been involved in planning station areas?

Will the proposed system increase overall and individual access to jobs, services, opportunities and markets? Is this enhanced access serving the transit dependent

population as well as so-called choice riders? Is rail complementary to bus service, or does it replace bus service? Is rail access being provided to communities of color and low income communities? Have they been involved in the decision making process?

Each community must ask these kinds of long range questions of itself. Rail transit is a major investment and it won't be a successful investment if it is not pursued in a comprehensive way. Making rail transit work requires sustained commitment, both on the transportation side and the land use and development side. If each community asks itself these kinds of questions and acts on the answers appropriate to itself, then rail transit can be a key part of building a vital, sustainable metropolitan economy. Fortunately, the Federal Transit Administration is beginning to move in this direction -- land use and environmental considerations have been added to the federal criteria. The Pickrell report has resulted in better planning and forecasting. And we are building the sustained support base which leads to both doing a better job and increasing overall funding levels to meet the demand. The two go hand in hand.

The Surface Transportation Policy Project is a nationwide network of more than 800 organizations, including planners, community development organizations, and advocacy groups, devoted to improving the nations transportation system.

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