BROADENING THE HORIZON OF TRANSIT PERFORMANCE MEASUREMENT

DELOITTE, HASKINS & SELLS
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THE PUBLIC TRANSIT SITUATION

TRANSIT PERFORMANCE TRENDS: During the 1970s, transit operating subsidies increased more than 15 times, as public assumption of the industry was completed. The plentiful subsidies financed increased services levels and lower fares during the middle years of the decade; but in the later years, the growth in public funding slowed substantially. Today there are undesirable trends in public transit performance, which must be effectively addressed:

Costs continue to rise faster than the inflation rate. From 1973 to 1981, transit costs increased more than 25 per cent above the rate of inflation.

Fares are increasing rapidly, with average fares increasing 35 per cent over the past three years.

In response to these fare increases, transit ridership has resumed its decline, with a six per cent decrease over the past two years.

Services have been reduced, especially in lower demand areas and some suburban communities have withdrawn from regional transit authorities.

Transit must provide comprehensive service levels and obtain control over deficits and fares increases or there will be continued losses in ridership and political support.

TRANSIT AND THE MARKET: Transit exists in a dynamic market, replete with substitutes for its service. As fares continue to increase significantly and as service is reduced, riders find alternatives to transit more attractive. Some alternatives, such as car pooling, are consistent with community goals. Others, such as single automobile commuting and employment relocation to the suburbs increase energy consumption, air pollution and traffic congestion. If transit continues to reduce service and raise fares, substitutes will become even more attractive and ridership will decline further.

Since World War II, transit has lost substantial ridership. During the 1970s, according to census data, transit work trip market share declined nearly 30 per cent, from nine per cent to 6.4 per cent. Of the 38 urban areas with more than one million people, only nine registered increases. It is ominous to have lost market share while operating and capital subsidies increased so significantly.

THE MISSION OF TRANSIT

Yet transit service is important to the city. By attracting ridership with a choice, transit reduces traffic congestion, air pollution and energy consumption. By serving the substantial transit dependent population, it addresses important mobility and social objectives.

Public transit is supported by public funds because of these benefits, not out of nostalgia and not out of a commitment to a particular mode of transportation. The business of transit is moving people. The

mission of public transportation is, to the greatest extent possible, to make mobility available.

TRANSIT PERFORMANCE MEASUREMENT

THE IMPORTANCE OF PERFORMANCE MEASUREMENT: Public transit performance measurement serves two important functions. First, because of the substantial level of public support, it is appropriate that the stewardship of public transportation be a public issue. Second, performance information is required by transit management and boards. Internal application includes trend analysis, comparison with other transit agencies and measuring its usefulness to the consumer.

THE ELEMENTS OF TRANSIT PERFORMANCE: There are two basic elements to transit performance, efficiency and effectiveness.

Efficiency refers to how well the agency uses the resources which are available to it. It is doing things right. Typical measures of efficiency are unit cost trends, measures of service hours per pay hour and other ratios of produced service to resource expended. Management has substantial control over efficiency. However, efficiency does not include ridership measures, because ridership is consumed, rather than produced service - ridership relates to effectiveness.

Effectiveness is how well an agency meets the needs of the community. It is doing the right things. Effectiveness is measured in relation to the goals of the agency, and includes passenger utilization and other measures of consumed service relative to public objectives. Effectiveness is under less direct management control than efficiency.

Both of the elements of performance measurement must be addressed. Efficiency and effectiveness do not necessarily rise or fall together. Effectiveness can improve while efficiency deteriorates, and the reverse is also true. For instance, cost per mile can increase comparatively rapidly (declining efficiency), but if ridership increases at an even greater rate, cost per passenger can be reduced (an improvement in effectiveness). In this example, the less than optimal performance in cost per mile limits the gains in cost per passenger, illustrating that both efficiency and effectiveness are essential, and they must be addressed clearly and distinctly.

ASSESSMENT: USE OF PERFORMANCE MEASUREMENT: It is important that transit performance measurement be utilized appropriately. The transit agency should identify the indicators by which it will judge its performance, and apply those indicators consistently. If performance is monitored without consistency, the results are not reliable. Furthermore, if indicators are selected for publication based upon the desirability of the results, credibility with the public is reduced. Performance audits represent an opportunity for transit agencies to obtain an impartial review of performance. Too often, performance audits have been viewed as obligatory rituals, and when this occurs, there is a disservice to the public.

ASSESSMENT: SUBSTANTIVE TRANSIT PERFORMANCE ISSUES: There are two basic issues which must be successfully addressed in order for transit

to retain its importance in the community, deficit control and the maintenence of comprehensive service levels.

1. Deficit control: Transit has not been successful in controlling the increase in operating costs, and with slower subsidy growth, deficits are rising significantly. The continuing decline of transit's market share, and continuing urban sparsification illustrate the potential for continued patronage losses. As ridership declines, political support will be harder to retain. The more effective transit is in controlling deficits, the lower fares will be and the higher ridership. With the continuing shortage of public funds, and the growing competition for public funding from other public services, deficit control is vital to the future of transit and to the mobility of the community.

2. Comprehensive service levels: Dissatisfaction with transit service levels in lower density areas has lead to withdrawals from regional transit agencies. At the same time, the failure to provide sufficient capacity in higher demand areas has created disaffection in transit's strongest market. If service continues to be reduced in the suburbs, and if sufficient capacity is not provided in the inner city, there will be an increased reliance on substitutes for transit service, and political support will decline.

To a great degree, transit has limited its options to only the most conventional, fare increases and service reductions - cost effective innovation has been the exception rather than the rule. Consequently, the scope of transit performance measurement has been limited to conventional service issues. Transit performance must be broadened to include how well, given the resources available, public transit makes mobility available. From the public perspective, performance should include not only what is, but also what could be.

BROADENING THE PERFORMANCE AGENDA

Addressing these issues requires consumer oriented solutions, and comprehensive consideration of innovative performance improvement strategies.

TOWARD A CONSUMER ORIENTATION: Three consumer orientation issues are of great importance:

1. Service Design: Transit service should be designed with the consumer in mind. For the rider, the critical service elements are availability of service in frequency and distance, and trip time (including transfers between routes which, except where brief and reliable, have a dampening effect upon ridership). It is counterproductive to allocate service by formulas relating to tax contribution. Service designed thusly seeks the wrong objectives and is likely to be characterized by excessive transfer times. Comprehensive only on route maps, it is deficient from the customer perspective. The consumer is not interested in return of taxes or the percentage of bus miles expended in the local community, the consumer is interest in usable transportation. There is an important difference between the theoretical objective of serving aggregate communities and that of serving individual transit consumers.

Throughout the urban area, potential riders should be guaranteed a minimum standard of transit mobility, with targets in distance accessibility, service frequency and origin to destination trip time, including transfers. Where such consumer oriented measures govern service design, more efficient and effective systems are likely to result. Consumer oriented service designs can contribute to deficit control in two ways, through lowered cost and through increased fare revenue from higher ridership levels.

2. Market and Capacity: Related to service design is whether or not there is sufficient capacity in high demand areas. In many larger cities, riders are passed at transit stops by vehicles packed with standees. Where this occurs not only is present ridership inconvenienced, but potential new ridership is discouraged, and substitutes for transit service are encouraged. Inadequate service to transit's most lucrative market could have negative longer term impacts on transit, because political support is greatest where ridership is greatest.

3. Fare Increases: Fare increases are significant to transit riders, and are particularly burdensome to those on fixed incomes. A higher fare can mean the difference between being able and not being able to make a necessary trip for many transit dependent people. Fare increases must not be perceived as an unlimited source of income to finance hyper-inflationary cost increases, or the recently resumed downward trend in ridership may become more permanent.

TOWARD AN INCLUSIVE AGENDA: It is not necessary to limit deficit reduction and service provision alternatives to fare increases and service reductions which are so ruinous to the mission of transit. There are performance improving alternatives, which are being embraced by innovative transit agencies:

-Timed transfer, radial fixed route service designs: Such service designs in low demand areas can reduce vehicle requirements and thereby reduce costs and deficits. While maintaining or even retarding service frequencies, consumer mobility can be improved because of the reduction in transfer times. In Portland (Oregon) and Edmonton, suburban communities are provided high levels of usable service through such systems, and cost effectively.

-Paratransit substitution: Paratransit substitution, whether demand responsive or fixed route, for conventional transit service can reduce the costs of public transportation service while making it more attractive to the consumer. This is especially appropriate where demand is low (whether in certain areas or only at certain times). A deficit reduction of more than 80 per cent has been achieved in Phoenix, where a user subsidy taxicab program has replaced Sunday fixed route bus service. In Santa Fe, the entire public transit system is provided by taxicabs, at sizable savings.

-Contracting with private operators: For some time, considerable amounts of demand responsive service have been contracted to private paratransit and taxicab operators. This usage should be

increased where cost effective, including contracting of some conventional transit services. Contracting is not removal of service control from the public sector to the private sector, it is the purchase of cost effective service by the public sector from the private sector. No private franchise is granted, and no buy out obligation is therefore created. Increased contracting with private bus, taxicab and paratransit operators can improve performance:

-Deficits can be significantly reduced: Los Angeles County contracts its Santa Clarita Valley commuter express service at a 67 per cent deficit savings. Hammond (Indiana) provides all of its fixed route transit service through a private operator, and is saving more than 50 per cent. A study published by the U. S. Secretary of Transportation, of unsubsidized Los Angeles County express operators concluded that public express services could be provided by the private operators at a cost savings of 50 per cent, and a deficit savings of 97 per cent.

-Capital costs can be reduced: The savings cited above include the costs of vehicles and fixed facilities. Public transit costs, on the other hand, include neither the capital grants, nor even the local matching funds. The use of private operators can reduce capital grant and matching fund requirements.

-Control over cost increases: The competitive bidding process is effective in controlling operating cost increases. The Santa Clarita Valley commuter service has routinely increased in unit cost less than the inflation rate. The latest contract calls for a decrease in unit costs, as is also the case with suburban service contracted by San Diego County. During this same period, public transit costs have increased at well above inflationary levels.

-Shortlining, scheduling the turnaround of vehicles around on the route as they reach areas of lower demand, can increase capacity in high demand areas. It can provide for increased ridership and fare revenue at no increase in costs.

Innovations such as these can improve transit performance by reducing costs, attracting or maintaining ridership and thereby helping to control the rise in deficits and retaining mobility where service might otherwise be withdrawn. Taking advantage of these cost effective options requires that transit have an inclusive agenda. Opportunities can be created through the free and full consideration of cost effective alternatives.

TOWARD PUBLIC TRANSPORTATION PERFORMANCE

Transit performance measurement is important to transit management, transit boards and the public. Both efficiency and effectiveness must be sought. Reliable indicators of transit productivity should be identified and consistently utilized.

The horizon of public transit performance must be broadened. Public transportation must gain firm control of deficits, and maintain usable levels of transportation service throughout the service area. This requires heightened consumer orientation, provision of sufficient capacity to serve demand and effective control of fare increases. It requires an agenda open to cost effective innovations, both in service design and operation.

The comprehensive performance question relates to how well transit fulfills its mission - making mobility available. It is a question of how much mobility is made available with the resources committed to public transportation. If, in an environment of great mobility needs and limited public resources, public transit fails to implement cost effective innovations, the public is inadequately served. Lower than necessary service levels deny mobility to some. Higher than necessary fare levels impede the mobility of others. The customer is sacrificed in order to preserve the institutional structure, a questionable usage of public funds.

If, on the other hand, public transit becomes more consumer oriented, rather than product form oriented, and more innovative and cost effective, rather than exclusively committed to conventional approaches, it will maintain or increase ridership and public support will be retained. It is public transportation performance of this character which the public, which pays the bill both in fares and in taxes, is entitled to receive.