

This is a report of a conference session dealing with the role of citizens in implementing transportation pricing. The session resulted from activities of the Committee on Citizen Participation to help implement research fundings or transportation policies by improving general awareness and understanding of the research or policy.

Schemes for pricing transportation facilities are summarized and reviewed here. For example, the Urban Mass Transportation Administration's experience with pricing to control traffic in several cities is summarized. Pricing approaches considered include parking licenses, morning peak surcharges, parking space charges, and revenue taxes.

Experience indicates that these concepts are not now generally accepted or implementable. In Berkeley, an investigation to identify locations where pricing might alleviate traffic congestion failed for several reasons: public misunderstanding, uncertainty by the city council, and sponsorship by a non-local organization. In Madison, Wisconsin, some of the impacts of road pricing were estimated and analyzed. Failure of road pricing schemes to proceed apparently resulted from lack of understanding, especially

by people who would have benefitted from reduced traffic in their neighborhood or better transit service.

The session identified factors contributing to the demise of pricing schemes and made suggestions for implementing similar adventures in the future. For example, costs imposed by road-pricing are more likely to stimulate opposition than the benefits are to stir up positive response.

AN URBAN MASS TRANSPORTATION ADMINISTRATOR'S EXPERIENCE WITH PRICING TO CONTROL TRAFFIC Bert Arrillaga.

My presentation provides an overview of our experiences in implementing road and parking pricing techniques. I will describe innovations that we have developed since we started this program, tell about existing project designs that we have underway with various cities, and mention some of the most important factors that have negatively affected the implementation of these innovations, as well as reasons why some cities appear to support them. Finally, I will pose key questions for the panel to address.

Experience with Areawide Road Pricing

In 1975, the Pricing Policy Division of the Service and Methods Demonstration Program instituted a project to test and evaluate pricing strategies to control low occupancy modes. An early effort in this project was to implement an areawide pricing scheme made famous by the Singapore experience. (Finance & Development, Vol. 13, No. 1, March 1976.)

In areawide road pricing, a fee is charged to low occupancy vehicles for the use of a designated area during highly congested periods, such as the morning peak hours. The fee is charged by selling windshield license stickers on a daily, weekly or monthly basis. Fees could be very low or nonexistent in instances where headways are very long. The extent of the charge is dependent on the desired reduction in congestion and the needed revenues. High occupancy vehicles, police and emergency vehicles are exempt.

A collateral element is the implementation of a significant amount of transportation improvements about six months prior to the pricing scheme. Improvements may include the addition of conventional fixed-route buses or small vans. Park-and-ride lots could be strategically located around the restricted area so that auto users could easily park and take a free bus shuttle to their destination. Carpools, vanpools, and shared-ride taxis would be encouraged. The reduction of traffic in some areas may free up the space for providing pedestrian amenities or physical development improvements such as sidewalk widening for cafes, shops, etc. In our attempts to implement an areawide road pricing demonstration we contacted 11 cities. Six cities expressed an interest in an areawide pricing demonstration but only three (Berkeley, California; Madison, Wisconsin; and Honolulu, Hawaii) were willing to perform a preliminary analysis of alternative pricing schemes. Preliminary sketch design would provide an opportunity to interact with people in the areas and to inform them about the concept and its possible impacts. Following this analysis, a 6 month study would follow dealing with public information, transit planning, operations, and cost.

The technical results of these feasibility studies are available from the Urban Mass Transportation Administration (UMTA) and the Urban Institute. The results of this study were presented to the mayor, officials of state and regional government, and business groups. In Madison, a key objection to the concept was the possibility of worsening an already declining central business district. In Berkeley, the city had positive reactions to the study results and passed a formal resolution to proceed with more detailed study phases. However, a press release on this action caused unfavorable reactions from the public, forcing the detailed study phase to be stopped. In Honolulu, there was general interest but the business community expressed its concern about the concept as being perceived as a tourist tax. The ultimate result was rejection by the cities of proposals to implement a pure road pricing concept. In order to learn more about how the people in the study areas perceived this concept, "post mortem" interviews were made with various community groups and members of the city staff.

Program Restructuring

Because of these negative experiences, we made some basic changes in the project. Instead of just attempting to implement a pure road pricing demonstration, we are now interested in experimenting with a broad set of pricing incentives and disincentives that

will accomplish related objectives. We are also attempting to improve our delivery system, and we are developing informational booklets with excellent graphics to better convey the benefits of this program. This booklet will be integrated into a press kit so that cities can respond quickly to public inquiries.

The additional concepts we are now interested in implementing include corridor, spot, and parking pricing. In corridor pricing, vehicles are priced according to car occupancy along an urban corridor such as a major expressway or artery, or a bridge crossing; mass transportation improvements are also implemented along the effective corridor. A variation in corridor pricing is to charge low occupancy vehicles for use of facilities that are designed exclusively for high occupancy modes, such as busways. Also, incremental fare increases may be implemented on existing toll roads and while these variations may not provide as much information as direct pricing of facilities, they will give an indication of the trade-offs between price levels and service levels.

Spot pricing which is even more localized than the above involves pricing the use of congested spots, such as expressway entrances and exit ramps, major intersections in central cities, sports stadiums or entertainment complexes. A major problem is heavy congestion associated with recreational events (football, baseball, etc.) that often interferes with intracity and intrastate travel. Pricing schemes in this instance can be used to encourage the use of already provided shuttle service from satellite parking lots.

Parking pricing has as its objective encouraging the use of high occupancy vehicles during peak hours, encouraging auto off-peak travelling and the use of mass transportation in general. Parking pricing strategies provide an opportunity to restrict auto use by the time of the day, the location, number of persons in the car, and type of ownership. There are four ways for implementing the charge: parking licenses, morning peak surcharges, parking space charges, and revenue tax.

Studies prohibiting parking by commuters in urban residential areas are also being performed. Cities that are implementing physical prohibitions may be interested in implementing price prohibitions, such as providing free parking for its immediate residents with a high parking fee for non-residents or commuters.

Technical evaluations have been performed in urban areas that have provided free parking for high occupancy vehicles. Expansions of these programs are being contemplated in terms of scale and price distribution according to vehicle occupancy. The formation of carpools, changes in revenues, or decreases in transit ridership will be evaluated.

A concept has been designed to eliminate the long term custom of employers and retail centers to provide their employees with a parking subsidy. The concept involves replacing these subsidies with an equal amount of cash or a free mass transportation pass. Such cash disbursement would be given on the basis of occupancy so that the single

occupant vehicle would be assessed the true commercial parking fee.

Project Development

Honolulu has shown interest in pricing major corridors leading into the CBD combined with high parking prices to discourage long term parkers. Madison has made a proposal to establish a peak hour surcharge of about \$3 and to increase the hourly rate for long term parkers. Reduced parking rates through merchant validation will be provided for the short term off-peak parker. A license for on-street vehicles during peak hours may be a future possibility.

A comprehensive feasibility study of road pricing, corridor pricing, and parking taxes is being conducted in Boston, Massachusetts. Analytical tools to evaluate pricing scenarios will be used in the study, along with interviews with business groups, community leaders, and politicians to determine the feasibility of pricing proposals.

Surprisingly enough, recreational communities have shown the most interest in pricing techniques. These communities suffer from heavy seasonal traffic that infiltrates the residential and business areas hindering mobility. One example is Lake Tahoe, California, where visitors outnumber residents four to one. One proposal is a parking pricing scheme which restricts trips ending in congested areas but allows through traffic. Parking permits would be sold to all establishments at the rate of \$5 for three days, \$10 for ten days, and \$20 annually. The major purpose of this scheme is to restrict auto use and raise revenue to pay for numerous transportation improvements planned for the area. It is expected that the parking charge will generate 13.8 million dollars for fiscal year 1978.

Santa Cruz and Hermosa Beach, California, are interested in applying areawide parking charges which would discourage parking at the beach and encourage parking at nearby park-and-ride lots with a free bus shuttle.

Factors Affecting Concept Acceptance in Implementation. In spite of the fact that pricing schemes to control travel behavior in favor of high occupancy vehicles will generate a new source of revenue to finance transportation improvements and effectively reduce auto use in congestion, specifically from outside or through traffic, they are not readily acceptable concepts. Numerous factors adversely affecting the implementation of the pricing concepts were perceived through personal contacts and visits made to the selected cities. People in the community did not believe in the proposed transportation improvements nor their success in providing good mobility. Other people felt that less drastic measures might accomplish what pricing would and they perceived no severe congestion to justify the price of the scheme. Many people associated the pricing concept with a commuter tax. There was also a concern throughout the community about the effect that the pricing scheme would have on business and on low-income groups. Several legal issues tended to impede the implementation of the pricing concept, such as whether

the charge is a toll and, if so, can it be implemented on a federally aided roadway. Other legal issues were the right to travel, the right to equal protection under the law, and the availability of local enabling legislation in law enforcement problems.

The experience gained by the initial interaction with city officials and local transportation planners and engineers showed that new directions must be taken in order to provide a better basis for acceptability of the concept, and hopefully, its future implementation. Steps must be taken to insure that the detailed feasibility study is broad enough to consider the application of areawide charges and all other possible pricing schemes. The study should deal with existing and planned transportation improvements, include other amenities such as closing streets, or lanes for expanded sidewalks for restaurants, shops, etc. Financial support should be provided for developing a comprehensive community interaction program. Also, an information package should be developed to be used in citizens' workshops or public hearings and press conferences. The case study site should be acceptable for performing a detailed study in order to advance the knowledge base in this area. Further, the larger and widely publicized site selection process should be implemented so that cities will be acquainted with the program and have an opportunity to express their interest.

THE BERKELEY EXPERIENCE: "POST MORTEM" Mary Lou Olson

Berkeley's involvement with road pricing began in late 1975 when the Secretary of the Department of Transportation (DOT) sent letters to the mayors of several cities explaining the road pricing concept and soliciting interest in the demonstration of the concept. As a result of the interest shown by the mayor of Berkeley, meetings were set up in March of 1976 to discuss the possibilities of a demonstration. Attending these meetings were staff from the Urban Institute, representatives from the Urban Mass Transportation Administration, and the mayor and selected community leaders (who included members of the transportation planning staff and the Planning Commission).

A three-phase study was proposed at this meeting, each phase requiring the City Council's approval. The first phase was a preliminary investigation to be conducted by the Urban Institute in order to identify locations in which traffic congestion was a problem, to develop some very general pricing strategies, and to project their probable impacts. The second phase had as its objective the development of much more specific strategies. During this phase, a concerted effort would be made to solicit the views of the community through formal and informal channels and to find strategies that were acceptable to as large a segment of the community as possible. The objective of the third phase was the selection of one of the