

A Pricing Strategy for the St. Croix Crossing

LESSONS LEARNED FROM RECENT EXPERIENCE

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RELATIONSHIP BETWEEN TRANSIT / TDM AND PRICING STRATEGIES

Pricing, Transit and Demand Management Objectives	Transit and TDM Incentives		Value Pricing Incentives
	Price-Based	Non Price-Based	
1. Mode shifts from SOVs to transit/carpools	<ul style="list-style-type: none"> Discount passes Employers subsidies / tax credits Parking cash-out Free/discounted HOV parking 	<ul style="list-style-type: none"> Bus-only shoulders / bypass ramps Trip planning Guaranteed ride Park-and-ride lots 	<ul style="list-style-type: none"> Pricing of SOVs No pricing of transit/HOVs Use of toll revenues for transit / TDM
2. Time-of-day shifts from peak periods	<ul style="list-style-type: none"> Higher peak period fares 	<ul style="list-style-type: none"> Flexible / compressed work schedules 	<ul style="list-style-type: none"> Peak-period pricing of SOVs Lower charges on shoulders Minimum charges for off-peak
3. Route shifts from congested "premium" routes			<ul style="list-style-type: none"> Only premium facilities are priced
4. Travel and VMT reduction by automobiles		<ul style="list-style-type: none"> Bicycle facilities / programs Pedestrian facilities / programs Telecommunicating programs 	<ul style="list-style-type: none"> Pricing of SOVs Pricing based on miles traveled Conversion of fixed to variable vehicle costs (based on VMT)



Lessons Learned from Recent Pricing Experience

Effects on Congestion

- Congestion can be managed through variable pricing (SR 91) and dynamic pricing (I-15). Toll rate is increased when demand is high and decreased when demand is low.
- Congestion levels on SR 91 dropped substantially.



Lessons Learned from Recent Pricing Experience

Effects on Transit and Carpooling Use

- Bus service improvements financed by user fees helped increase bus ridership by 25 percent between 1999 and 2001. (I-15)
- No decline in transit use in parallel corridors to SR 91 was found. (SR 91)
- Vehicle occupancy on I-15 is twice as high as on the control corridor (I-8). Carpooling increased by 13 percent.
- Within three months of opening, SR 91 had a 40 percent increase in three-or-more passenger carpools using the priced lane.



Lessons Learned from Recent Pricing Experience

Effects on Travel Time

- Users of I-15 reported a travel time saving of 20 minutes per trip; users of SR 91 reported similar time savings.
- Speeds on SR 91 are significantly higher than before the Express lanes opened.



Lessons Learned from Recent Pricing Experience

Equity Issues

- The choice to use the priced facilities is related more to current travel conditions and trip needs than to user demographics.
- On SR 91, many frequent users are low income, and many high-income commuters are infrequent users.
- Low-income and high-income drivers use the facilities more than medium-income drivers.
- 78 percent of low-income users support the priced lanes.
- A higher percent of users are females and of middle age.



Lessons Learned from Recent Pricing Experience

Safety Effects

- SR 91 saw no accident rate effects. Conditions in upstream and downstream weaving sections revealed no special problems.
- I-15 program participants highly valued the perceived safety in the HOT lane.



Lessons Learned from Recent Pricing Experience

Use of Revenues

- Revenues to pay the cost of project administration, maintenance and operations,
- To make transit improvements in corridor,
- To make other road facility improvements.



General Findings and Conclusions

- Changes in the way the transportation system is managed can significantly influence travel behavior.
- Pricing has resulted in better distribution of peak period demand.
- Pricing has resulted in increases in carpool and transit use
- Avoid pricing all lanes (take-away). Increasing traveler options is a key to success.
- Support by users and non-users increases after implementation. Support among users is higher than among non-users.



General Findings and Conclusions (continued)

- Use is based on avoiding congestion and also on reliability and safety.
- Users report greater travel time savings than they actually experience.
- Users are good at making decisions about anticipated congestion and whether to use the priced facilities on a given trip.
- About one-fifth of subscribers use the priced facility on a given day.
- Use has continued to increase yearly.



Pricing in SEIS Analysis

- Test as part of Alternative 'A' in SEIS scoping forecasts
- Can transit / HOV / travel choices be influenced by pricing?
- Assumed single-occupant vehicles priced, HOV free



Pricing in SEIS Analysis

- **Analysis conducted to estimate price, not determine feasibility**
- **Target price to maintain traffic volumes approximately at current levels**
- **Model estimated necessary price as:**
 - \$2.25 AM peak period
 - \$1.60 off-peak period
 - \$3.60 PM peak period



Pricing Considerations for St. Croix Crossing

- Physical design
- Provision of transit service
- Hours of operation (all day vs. peak periods)
- Use of variable or dynamic pricing to regulate demand
- Level of enforcement and jurisdiction
- Use of electronic tolling (transponders and readers)

