

HOT LANES: FREQUENTLY ASKED QUESTIONS

BY LEONARD GILROY AND AMY PELLETIER

What are HOT lanes?

High-Occupancy Toll (HOT) lanes are limited-access lanes reserved for buses and other high occupancy vehicles but open to single occupant vehicles upon payment of a toll. The number of cars using the reserved lanes can be controlled through variable pricing (via electronic toll collection) so as to maintain free-flowing traffic at all times, even during the height of rush hours. The occupancy rate for free or discounted passage varies by project—some allow High-Occupancy Vehicle (HOV)-2 or HOV-3 to ride free, while others are free only to super-high occupancy vehicles like vanpools and buses. The term and concept of HOT lanes was first set forth in a 1993 policy study by Reason Foundation¹ and subsequently endorsed by the Federal Highway Administration under its Value Pricing Pilot Program.

Where are HOT lanes being used?

There are currently HOT lanes in operation in Orange County, California, San Diego, Houston,

Denver, Salt Lake City, and Minneapolis. More are planned in Miami, the Capital Beltway (Washington D.C. and Northern Virginia), Seattle, Maryland (on I-95), Austin, Dallas, Atlanta, the San Francisco Bay Area, Raleigh-Durham, and Portland, OR.

Why are so many governments turning to HOT lanes?

There is increasing dissatisfaction with HOV lanes. Although intended to reduce traffic by getting drivers to share rides, more than half of all “car pools” in many cities are actually “fam-pools,” made up of family members who would travel together anyway. Violation rates are high in many cases. Lots of HOV lanes are poorly used, leading to resentment by drivers whose taxes paid for their creation but who cannot use them, since their trips aren’t conducive to car pooling. And in highly congested cities, HOV lanes are filling up and losing their original time-saving advantage. Value pricing is the only known way to main-

tain uncongested traffic flow over the long term, thereby preserving the time-saving benefits of special lanes. Hence, many transportation experts have concluded that HOT lanes are a more useful and more sustainable form of special lane than HOV lanes.

How do HOT lanes work?

HOT lanes make use of variable pricing collected through electronic tolling. The price to use the lanes changes to keep traffic moving at the maximum speed limit, even during rush hours. As demand increases, the tolls rise to ensure the ideal number of cars are moving through the lanes. At off-peak times, the tolls drop.

What are the benefits to carpoolers, commuters and solo-drivers?

Free-flowing lanes give every motorist “congestion insurance”—an alternative to gridlocked freeways for those times when you really need it—to pick the kids up at daycare, make it to their soccer game, or catch a flight. Unlike traditional freeway lanes and many HOV lanes, HOT lanes will not become congested over time. Variable pricing allows roadway managers to change the price to ensure sustainable congestion-free travel over the long term.

By using a price to discourage some people from traveling in peak hours, HOT lanes actually provide more mobility. A free-flowing freeway lane has much higher throughput per hour than a congested freeway lane—about 50% more. Orange County’s HOT Lanes represent just one-third of the highway’s lanes but carry half of all traffic during rush hour

What are the benefits to emergency vehicles?

HOT lanes offer congestion-free routes for emergency vehicles to reach the scene of incidents and then the emergency room in significantly less time.

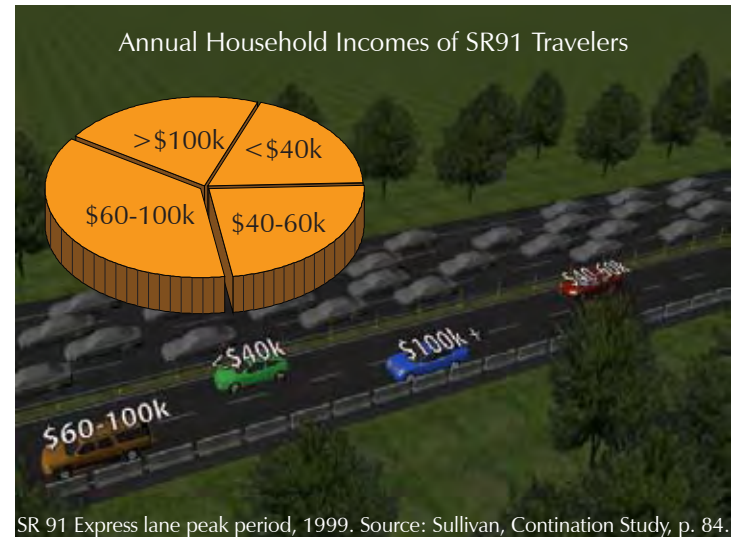
What are the benefits to taxpayers?

While the vast majority of transportation projects around the country continue to be funded from traditional sources—gas and vehicle taxes—these revenue

sources do not even cover the costs of ongoing maintenance of roads, let alone raise enough money for needed expansions and new roads. As a result, a substantial percentage of the cost of building and maintaining roads comes from sources such as property and sales taxes, where payments are completely unrelated to how much one actually drives. Money raised by congestion tolls could be used to replace these non-transportation taxes.

What are the benefits for mass transit?

Because HOT lanes operate uncongested at high speeds, even during the busiest rush hours, they can provide a reliable, high-speed path for express bus service (sometimes known as Bus Rapid Transit). Transit agencies would ideally like to operate Bus Rapid Transit on exclusive busway lanes, but few can afford the cost of building new lanes just for buses. Value pricing keeps HOT lanes uncongested and free-flowing, making them the virtual equivalent of exclusive busways, from the transit agency’s perspective. Both Houston and San Diego are planning expanded express bus service on HOT lanes.



“Tax roads are depreciating liabilities. They are like an old car. It costs more and more to maintain it and it is eventually worthless and in need of costly replacement. Toll roads are the appreciating asset of a business. It pays for itself and becomes more valuable over time. Like any profitable, revenue-generating business, it provides its owners (the public) with wealth and options for growth.”
– Texas Representative Mike Krusee

What is a HOT Network?

A HOT Network is an interconnected network of HOT lanes on the freeway system of an urban area, allowing congestion-free travel throughout the region. There are currently no HOT networks in operation, but a number of metro areas (including San Diego and the San Francisco Bay area) include them in their long-term transportation plans.

Are HOT Lanes just “Lexus lanes”? Do they only benefit the wealthy?

In 2005, there were over 12 million trips on Orange County’s HOT Lanes. Over a decade of data is available from the 91 Express Lanes in Orange County and the HOT lanes on I-15 in San Diego. It indicates that the vast majority of drivers—high and low income—use the HOT lanes only on occasion, instead of every day.

While studies of the 91 Express Lanes indicate that use increases slightly with income group, 19% of the users have an annual household income of less than \$40,000, and another 23% have household incomes between \$40,000 and \$60,000.²

A 2001 telephone survey of San Diego I-15 Express Lane users revealed that 80% of the lowest income motorists (<\$40,000 annual household income) in the corridor agreed that “People who drive alone should be able to use the I-15 Express Lanes for a fee.” In fact, they were more likely to agree with that statement than the highest income users.³

Aren’t tolls just another tax?

No. With HOT lanes, no one pays twice for something they’ve already bought. It’s similar to the difference between free television and cable: HOT lanes provide a premium service that would not be there otherwise. Unlike taxation, no one is forced to pay; motorists would simply have a choice to pay to get premium service—an uncongested lane.

When an HOV lane is converted to a HOT lane, no one is required to pay a toll to use any lane that he is now using for free:



- Drivers in regular freeway lanes will still use those lanes at no charge.
- Carpoolers in what are now HOV lanes will still use them at no charge when they become HOT lanes.
- Solo drivers will have a new choice of staying in the regular lanes (no charge) or getting to use what are now HOT lanes (which they cannot use today) if they’re willing to pay a toll.

Where brand-new HOT lanes are added to a freeway, the only ones who will pay tolls are those who choose to use the new HOT lanes.

How do you collect the tolls?

Tolling in HOT lanes is always all-electronic. Most tolls are charged using dashboard-mounted transponders to debit pre-paid toll accounts. Another option uses license plate recognition to identify users, and bills are paid through credit cards or other means. Old-fashioned toll booths or toll plazas are never used for HOT lanes.

How do you enforce toll collection on HOT lanes?

Enforcement is done through a combination of technology and visual checks for occupancy (as with HOV lanes). Electronic toll systems include video enforcement equipment, in which the license plate of a vehicle without a valid transponder is imaged so that follow-up action can be taken due to non-payment. Police can also use a handheld reader to ensure that the transponder on the vehicle is operating. Minne-

apolis has found a reduction in violations from the traditional HOV lanes, because frustrated solo drivers tempted to cheat and use the faster lane now are able to pay to do so, and the toll is cheaper than risking a ticket.

The HOV lanes in my city are already congested. Wouldn't converting them to HOT lanes just make congestion worse?

Most cities' HOV systems operate as HOV-2 systems, granting access to vehicles with as little as two occupants. As HOV-2 lanes become congested, they lose their value as a means to combat gridlock and increase vehicle occupancy, producing an unsustainable situation that will have to be addressed. This will most likely require upgrading them to HOV-3 lanes (open to vehicles with three or more occupants), as in Houston and Northern Virginia today. An HOV-2 to HOV-3 upgrade would open up excess capacity that can then be "sold" to single and double-occupancy vehicles and priced through variable rate tolling.

Will the public accept HOT lanes?

There were 12 million trips on Orange County's HOT lanes in 2005. In the Washington, DC area, where HOT lanes have recently been approved for construction, an *ABC News / Washington Post* survey found that 58% of residents approved of the lanes.⁴

In a 2001 survey of San Diego's I-15 Express Lanes users, 89% of customers surveyed supported extension of the HOT lanes, and 66% of non-users supported the HOT lanes.⁵

Surveys in several states including Washington, Minnesota, and Florida show that a majority of drivers in areas with high levels of congestion would be willing to pay to avoid it.⁶

Is there political support for HOT lanes?

Variable pricing has become widely accepted as sustainable congestion relief technology, and is supported by the political left and the right, from environmental groups like Environmental Defense, to local business associations.



Implementing variable pricing is a top priority of the U.S. Department of Transportation's National Congestion Initiative, and has been highlighted by the President in his annual budget blueprint unveiled on February 5, 2007. The U.S. DOT will be offering financial support to urban areas that implement new pricing projects.

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ENDNOTES

¹ Gordon J. Fielding and Daniel B. Klein, *High Occupancy/Toll Lanes: Phasing in Congestion Pricing a Lane at a Time*, Policy Study No. 170 (Los Angeles: Reason Foundation, November 1993).

² Edward Sullivan, *Continuation Study to Evaluate the Impacts of the SR 91 Value-Priced Express Lanes* (Final Report). Cal Poly State University, December 2000, p. 84. http://ceenve.calpoly.edu/sullivan/SR91/final_rpt/FinalRep2000.pdf

³ Judith Norman, “San Diego Association of Governments I-15 Managed Lanes Value Pricing Project Planning Study, Community Outreach Program, Executive Summary,” *Public Outreach* (San Diego: San Diego Association of Governments, February 2002), vol. 2, pp 25. http://www.sandag.org/services/fastrak/pdfs/2002_fastrak_public_outreach.pdf

⁴ Steven Ginsburg, “New Tactics for Dealing with Traffic,” *Washington Post*, February 21, 2005.

⁵ Norman, San Diego Association of Governments.

⁶ Benjamin Perez and Gian-Claudia Sciara, *A Guide for HOT Lane Development*, (Washington DC: Federal

“Virtually every major financial institution on Wall Street has created—or is in the process of creating—an infrastructure fund with transportation as a major component. They correctly recognize the enormous potential in American infrastructure. And it is imperative that future transportation decision-makers continue to foster this interest, not take steps to discourage it.

History may well reflect back on this as one of the defining public policy debates of our time—as consequential as the one that gave birth to the Interstate Highway System some 50 years ago. And the business community must be active participants.

Finding a way to tackle congestion more meaningfully and successfully is not a problem for some future generation. It is an urgent challenge for today’s leaders.” —Former U.S. Secretary of Transportation Norman Mineta, Farewell Remarks, U.S. Chamber of Commerce, July 6, 2006

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