

The Role of Fast and Intertwined Regular (FAIR) Lanes in the New York Metropolitan Region

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1634 I St. NW, Suite 500
Washington, DC 20006
Tel: 202-879-4700
Fax: 202-879-4719

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Conference Summary: The Role of FAIR Lanes in the New York Metropolitan Region

On September 6, 2001, the Federal Highway Administration sponsored a conference about market-based traffic-management innovations that reduce highway congestion. The forum allowed New York regional planners and engineers to review the state of local value-pricing programs and learn more about fast and intertwined regular (FAIR) lanes.

FAIR lanes divide currently free, general-purpose traffic lanes into two sections: fast lanes and regular lanes. Plastic pylons and striping separate the two sets of lanes.

Fast lanes would be electronically tolled express lanes, with tolls set in real time to limit traffic to the free-flowing maximum. Regular lanes would be free, but would be more congested than fast lanes. Under the FAIR lanes scenario, however, drivers using the regular lanes during rush hours would be compensated with credits that could be used as toll payments on days when they choose to use express lanes. The express-lane credits would compensate drivers for giving up their right to use lanes that they “have already paid for,” and for any added delays that might result.

FAIR lanes can increase freeway throughput, speed public transit service, and let motorists bypass congestion as they choose—especially if they run late for work or other business or social appointments. Furthermore, funds generated by the tolled fast lanes could enhance regional transit service, provide limousine-type services, or other enhanced transportation.

Current New York Regional Value-Pricing Programs

The conference’s first presentations covered existing regional toll programs. Officials from the Port Authority of New York and New Jersey and the New Jersey Turnpike Authority discussed toll programs currently operated by their agencies. These programs emphasize value pricing by providing off-peak discount toll prices. A major element of these programs is E-ZPass, an electronic toll-collection technology used at most toll facilities in metropolitan New York and along I-95 in the Northeast Corridor. E-ZPass users are eligible for toll discounts.

To minimize opposition to its changing toll structure, the New Jersey Turnpike Authority started with a modest program, which has won the support of the news media. The goal of the program was to increase revenue by 10 percent and to increase E-ZPass use. The 10 percent revenue increase is to be achieved by reducing the E-ZPass toll rate and by increasing the cash toll by 20 percent. The Turnpike Authority has already realized an 8 percent increase in E-ZPass usage in peak traffic periods. Although no E-ZPass discount was initially offered for trucks, the program has been so successful that the trucking community now seeks a truckers’ discount.

E-ZPass usage has reduced gasoline consumption by 1.9 million gallons and saved the New Jersey Turnpike Authority more than \$27 million. An off-peak discount has slowed the increase in peak-period traffic during the past 2 years. Although afternoon peak traffic increased by only 3.9 percent, morning peak traffic has increased by 6.1 per-

cent, and off-peak traffic has grown by 7.6 percent. (These figures are preliminary.)

In January 2001, the Turnpike Authority again increased fares to encourage further E-ZPass usage.

Forum participants noted that two of this country's largest and most established toll agencies have implemented value-pricing strategies to manage demand and raise revenue. The New York region appears to be primed for an innovative demand management program such as FAIR lanes.

FAIR Lanes

FAIR lanes require ubiquitous use of electronic toll-collection technology. Only users of electronic transponders can use fast lanes and only those with transponders could accrue credits in regular lanes. Those without transponders can use the regular lanes, but there would be no way to assign credits without a transponder to identify their account.

FAIR lanes provide additional capacity by allowing more people in more vehicles to travel on a particular roadway. Yet they can also offer options for public transit and other transportation services. Fast lane revenues can subsidize the use of regular lanes, improved public transit, and fast, frequent, and low-cost limousine-type service. Limo-type service would be at least as fast as a current automobile trip, because it would use the fast lanes. Limo-type services provide safe and comfortable door-to-door service, much like a taxi. The cost for such a service would be no more than what it currently costs to operate a private vehicle on a commuting basis.

Those who choose to drive can use the fast lanes and avoid tolls by carpooling with three other people. Vehicles with fewer than four people are required to pay a variable toll to use the lane. This toll would be automatically deducted from their E-ZPass account. The toll would vary based on time of day and level of congestion in the adjacent regular lanes. Commuters are informed of the current applicable toll by message signs placed one mile in

front of the entrance to the fast lanes. These signs indicate the current toll rate and let commuters decide if they wish to pay the toll for a faster route or remain in more congested lanes.

Those who do not want to pay the toll travel in regular lanes and earn credits equal to 25 to 50 percent of the current effective toll. (The toll varies according to the time of day and vehicle demand.) These credits can be used for transit service or new limousine-type service in that corridor, or for the fast lane toll on another day. The credits compensate motorists for giving up their right to free use of the fast lanes.

Representatives from various transportation agencies in the New York region discussed the potential for FAIR lanes in the metropolitan area and suggested potential locations for a pilot project. Most participants were intrigued by the potential of FAIR lanes, although many details must still be worked out. One issue is how to enable use of the credits on public transit facilities. Some suggested that the credits should be integrated into existing transit check or transit-voucher programs. Others wanted to use existing E-ZPass accounts in which credits to motorists using regular lanes would accrue, but wondered whether E-ZPass units were available for, or could be read by, public transit vehicles.

One participant suggested that FAIR lane users would need to be able to access up-to-date account information, because some motorists would use fast lanes only if they had accumulated enough credits to drive on them for free. These motorists would have to be able to identify their E-ZPass account balance each day. Daily access to this information is already possible because existing E-ZPass technology lets customers access their balance by phone.

Social equity is another major concern. Because E-ZPass is required to participate in FAIR Lanes, some low-income households and individuals might not be able to afford to participate, as E-ZPass requires users to pay a \$25 deposit in order to receive a transponder. Without the transponder,

these motorists could not earn credits to use on enhanced public transit, limo-type service, or fast lanes. Those without transponders would be forced to rely on regular lanes, and would be unable to accept the credits that are compensation for giving up the right to use fast lanes.

Conference participants discussed specific operational issues associated with FAIR lanes. One area roadway segment reviewed for its potential for FAIR lanes—and to examine operational issues in a less hypothetical situation—was a section of Interstate 287 at the Tappan Zee Bridge. In this area, I-287 has three lanes in each direction and an additional reversible lane in the middle of the Tappan Zee Bridge. This configuration permits the potential for between one and three fast lanes using the existing reversible lane section on the bridge. (There was some concern expressed over a single fast lane in the three-lane section; motorists might not pay a toll to use a fast lane where they cannot pass slower moving vehicles.) Ed Regan of Wilbur Smith Associates suggested that the best location for an operational test of FAIR lanes would be the western portion of I-287 before the Tappan Zee Bridge. The directional split in this four-lane section allows for easy configuration of FAIR lanes. To complete a FAIR lanes segment, other sections of I-287 in this area might require construction of an additional lane. While such construction might provide the ideal opportunity to institute a new traffic-management scheme, no funding is available for an additional lane. FAIR lanes could manage traffic better and move more vehicles without requiring additional lanes or additional rights-of-way.

The Gowanus Expressway was suggested as another potential FAIR lanes site. However, participants concluded that the unique configuration of this road does not seem conducive to FAIR lanes. There is little room to expand in this corridor. The existing high-occupancy-vehicle (HOV) lane—which is used by those bound for the tolled Brooklyn Battery Tunnel and which has numerous entrances and exits along its length—makes the

inclusion of another traffic-management scheme and more motorist choices for fast or regular lanes too complicated. Moreover, enforcement of the HOV lane is a problem, and might become even more difficult with the implementation of FAIR lanes.

Both the Tappan Zee Bridge corridor and the Gowanus Expressway are subjects of current transportation studies in the region. Some conference participants suggested that a FAIR lanes pilot project take place in some other corridor that is not currently under study, to prevent influencing the outcome of existing studies. Others suggested FAIR lanes could be introduced as an alternative in either of the ongoing studies.

Another option reviewed for FAIR lanes implementation was on existing tolled facilities. In this case, the proposed FAIR lanes formula would have to be adapted to address the fact that all lanes are currently tolled; there is no free option. Here, fast lanes would require a higher toll for the higher level of service they provide. Motorists in regular lanes would pay a lower toll subsidized by additional revenue from the higher fast lanes toll. Fast lanes would provide a less congested lane in exchange for the higher toll.

The implementation of FAIR lanes on any corridor in metropolitan New York would require significant political will. The idea is new and potentially controversial. Despite its benefits, the concept may still be perceived as a new toll, which might make FAIR lanes very unpopular. In addition, despite the fact that FAIR lanes can move more vehicles through a corridor due to its enhanced traffic management capabilities, some might perceive the program as taking a lane away from ordinary motorists. (Free lanes converted to tolled lanes might be argued as taking away a lane.) In fact, these demand managed lanes would move more vehicles faster than congested lanes, thereby increasing the overall capacity of the corridor.

Focus Group Sessions

To test these and other possible perception problems, the Federal Highway Administration sponsored two focus group sessions with Manhattan commuters. These sessions were designed to elicit public reactions to FAIR lanes. Although the scope of the focus groups was too limited to draw effective conclusions for all of metropolitan New York, the information gathered is still instructive as to the public's willingness to accept the concept when they understand it.

The focus group sessions were held on August 21, 2001. One session consisted of drivers who worked in midtown Manhattan; the other consisted of drivers who worked downtown. There was a mix of genders and income groups in each session. All participants lived outside Manhattan. While the findings from the sessions are informative, the sample size is too small for the results to be statistically relevant.

Most of the focus group participants traveled 45 minutes or more per day, with average daily commuting costs of \$20 to \$30. Most did not carpool or use public transit. While the focus groups supported more frequent and reliable public transit, most indicated that they would not use it. Instead, they viewed this as a backup to their normal commuting mode. They viewed limo-type service even more favorably, but, again, would not change their behavior. When presented with the FAIR lanes proposal, some focus group members had difficulty understanding its operational characteristics. After having the concept explained, however, most focus group participants were intrigued by FAIR lanes. Indeed, some said that they would form carpools to travel in the fast lane for free.

The focus group moderator then tried to discover participant sensitivity to toll rates versus savings of time. Most members would not pay a \$4 toll to save 15 minutes on their commute. However, they would pay \$4 to save 30 minutes. A 15-minute time savings was not perceived as a large enough benefit for the higher cost. Some participants con-

sidered 15 minutes as the amount of time by which their respective commutes might vary from day to day, depending on weather conditions, whether they made all green lights, and similar time-saving elements of chance. These participants believed that they could already save about 15 minutes by luck without spending an additional \$4.

The focus group viewed regular lanes positively. Because participants would normally be traveling the route in congestion, using the regular lanes under the FAIR lanes system would let them “get something for nothing”; the credits they would earn would be received for the commuting mode they already use. A minority of participants were concerned that FAIR lanes would encourage current public transit users to become single-occupant-vehicle motorists. In addition, there was no consensus on how participants would redeem the credits they earn.

Political and Institutional Issues and Structures

Conference participants also reviewed potential political and institutional issues associated with implementing value pricing in general and FAIR lanes in particular. Because there is already some experience with value pricing, certain reactions and controversies can be predicted. For example, some opponents would argue that because gasoline taxes have already paid for road construction, additional tolls amount to double taxation. Because FAIR lanes allow for regular lanes to remain free—with commuters in regular lanes even receiving credits—this argument is not as compelling against FAIR lanes as it might be against other value-pricing concepts. In addition, revenue from fast lanes could be used to subsidize public transit service. Some citizens would see these public transit subsidies as an advantage, although others would argue that road tolls and taxes should be used only for roads.

Implementing a new and potentially controversial demand-management or pricing project like FAIR lanes is difficult in the institutional structures

that currently govern road building and management. Most advocates of such a program would likely be professional planners, engineers, designers, and other traffic professionals. In many cases, these professionals are intimately familiar with the local traffic problems and the potential for a particular concept because they are employed by local and state government agencies and work with these issues each day. However, these professionals cannot lobby or otherwise directly contact elected officials with final decision-making authority. Grassroots support must therefore be found for these types of projects. In the New York region, public support can be generated from existing experience with value pricing and the improved level of service achieved from the premium (i.e., fast lane) toll rate. Currently, there is no known grassroots support for FAIR lanes.

FAIR Lanes in Metropolitan New York?

Forum participants spent the afternoon session debating the merits of FAIR lanes and discussing where it might be implemented. They produced a list of benefits and drawbacks (see Appendix A). Most conference participants were intrigued and interested in the potential of FAIR lanes. The ability to promote and improve transit services and limo-type options enhanced overall acceptance.

Proponents were pleased with the potential to implement FAIR lanes because political acceptance of value pricing in the New York region has been increasing due to the success of recently implemented programs. In addition, the electronic toll-collection infrastructure is already in place and E-ZPass penetration is very high. FAIR lanes are better able to address many of the equity concerns that are raised against other value-pricing projects, which makes FAIR lanes politically more viable.

Introducing FAIR lanes on an existing four-lane roadway did not seem possible to the participants, many of whom felt that such an untested program would face too much skepticism and political

opposition. If FAIR lanes were introduced in combination with limited facility expansion, however, the proposition could be presented as a win-win scenario, with the FAIR lanes demand-management program used to ensure the continued success of the expansion project.

There was significant debate on whether FAIR lanes present an opportunity to introduce value pricing to the existing free bridges crossing the East River. Implementing tolls on these bridges has been controversial for many years. Because FAIR lanes toll only a portion of the road, provide for free lanes, enhance transit service, and compensate those using the regular lanes with credits, they were seen as a possibility for the East River bridges—but there was no consensus on whether they should be tested there.

Opponents of FAIR lanes in the New York region were concerned about the physical infrastructural limitations of most existing facilities and the inability to add lanes in the region. In addition, the logistics of the concept—how credits would be tracked and redeemed, and how funds would be distributed to the myriad operating agencies—were seen as major obstacles to implementation. Despite the demand-management benefits of FAIR lanes, some conference participants voiced concern that traffic in the regular lanes—where most commuters would travel—would be worse under FAIR lanes than under existing conditions. If traffic deteriorated for most commuters, FAIR lanes would not survive the political backlash. For FAIR lanes to win public acceptance, a significant public education campaign would be necessary. Such a campaign would introduce commuters and decision makers to the operational characteristics and demand-management benefits of FAIR lanes. This campaign would have to be considerable and intense, and could be costly. Moreover, a political champion would be required to win testing for FAIR lanes.

Next Steps

Based on the overall level of interest in the concept from a majority of conference participants, the New York Metropolitan Transportation Council (NYMTC) agreed to solicit member reaction to the concept, determine a sensible action plan, and develop a survey of acceptability. NYMTC would then review the program and identify opportunities to pilot test FAIR lanes. This would be accom-

plished with the intention of participating in the Federal Highway Administration's assistance program for value-pricing projects. A region-wide study to determine where value pricing could be best applied offers another opportunity for investigation.

Conference participants reached no clear consensus on potential locations for FAIR lanes in metropolitan New York. However, they supported the overall concept to reduce regional congestion.

FAIR Lanes: Providing Commuter Choice and Maximizing Transportation Efficiency

by Patrick DeCorla-Souza, AICP, Federal Highway Administration

Peak-period travel demand in most major metropolitan areas in the United States exceeds the capacity of the transportation system. Many of our major highways cannot carry additional vehicles during rush hour, but expanding highway capacity is difficult or impossible in many cases. Rights-of-way for additional lanes might not be easily available, and acquiring new rights-of-way or constructing multilevel facilities can be prohibitively expensive. Moreover, neighborhood organizations and environmental groups often oppose highway expansion because of the resulting increase in noise, air pollution, and other negative environmental impacts.

Many commuters drive because current forms of fixed-route transit services cannot easily serve the suburb-to-suburb commuting needs resulting from employment growth in the suburbs. In addition, downtown-oriented subway systems in such cities as Washington and New York carry crush loads during rush hours. This encourages many would-be public transit users to drive their own vehicles rather than be subject to the crowds and discomfort of public transit.

As major U.S. metropolitan areas continue to grow, job access will have to be provided to even more commuters. If we do not act to accommodate this growth in commuting demand, economic growth will be stifled in these metropolitan areas. It is therefore imperative that we explore new ideas that can maximize the ability of existing transportation infrastructure to carry rush-hour commuters, while providing them with travel choices that meet their individual needs and desires. This

article outlines one such concept that could be considered in major U.S. metropolitan areas in their efforts to meet current and future rush-hour travel demand. The concept is based on a market-based technique called road pricing or value pricing.

Road Pricing

Road pricing uses market principles; road-usage charges that vary by time of day and location of use are established. This provides a way to employ market principles routinely used in the private sector to bring supply and demand into balance.

Road pricing can shift excess demand away from peak periods, thus reducing the waste of resources, such as time and fuel and the human toll in frustration associated with traffic congestion. Road pricing may also reduce vehicle trips by encouraging shifts in travel mode from single-occupant vehicles to carpools, public transit, paratransit (specialized services for the disabled and elderly), and other modes, thus reducing vehicle emissions and fuel consumption.

Because peak-period motorists must face the true costs of the added capacity needed to accommodate them—instead of getting a subsidy from off-peak motorists or other public sources—there is greater “horizontal” equity or financial fairness. Those who are responsible for generating the need for additional capacity are required to bear some or all of the costs for that capacity. Moreover, because some peak demand is either eliminated or shifted to less congested times of the day, to less

congested routes, or to alternative modes, more productive use is made of existing transportation capacity. Therefore, the need for future capacity expansion is either delayed or reduced, saving taxpayer dollars.

A 1993 Federal Highway Administration (FHWA) study estimated that the cost to provide the additional capacity to accommodate an incremental peak period commute trip in a single-occupant vehicle is \$6.75 per one-way person trip (in 1992 dollars). This amounts to about \$9 in current dollars, taking into account construction-cost inflation. For high-cost lane additions, construction costs may be as high as \$1 per mile driven on them, based on FHWA estimates of average costs for such improvements. Yet fuel taxes average only about \$0.02 per mile—barely sufficient to maintain existing highway infrastructure. Giving away expensive new highway capacity at bargain prices encourages workers to seek housing in less expensive exurban developments. Induced travel demand and low-density sprawling development closely follows new and expanded transportation facilities when these are available free of charge.

Road pricing has long been advocated by economists, but has been shunned by politicians, primarily because of its perceived equity impacts. Practically no one in the U.S. today advocates wholesale pricing of existing free facilities. Such a policy could indeed place undue burdens on lower-income segments of our society. Pricing existing freeway facilities could also have negative impacts on neighborhoods, as motorists switch to neighborhood streets to avoid paying tolls on the freeway system.

Advocates of pricing (including FHWA) propose a limited form of road pricing. For example, pricing of only new lanes, or of low-occupancy vehicles choosing to use underutilized high-occupancy vehicle (HOV) lanes, would have fewer negative impacts on lower-income drivers. Under FHWA's Value Pricing Pilot Program, such lanes, called high occupancy toll (HOT) lanes, have proved to be politically acceptable in Houston, Los Angeles, and San Diego.

Yet HOT lanes still face political opposition on grounds of equity. For example, Maryland Governor Parris Glendening, an advocate of smart growth, denounced HOT lanes: "It is unfair to link an easier commute with a person's ability to pay." Some environmental advocates, including David Burwell, chairman of the board of directors of the Surface Transportation Policy Project, suggest that they would support road pricing only if alternatives to driving are concurrently implemented.

FAIR Lanes

A new road pricing concept called fast and intertwined regular (FAIR) lanes seeks to alleviate political concerns about equity and the availability of alternatives to driving. FAIR lanes involve separating freeway lanes using plastic pylons into two sections: fast HOV lanes and regular lanes. On the fast HOV lanes, fast, frequent, high quality, and low-cost bus and paratransit services are provided. These services are supported from toll revenues obtained from drivers of low-occupancy vehicles (LOVs) who are willing to pay to drive on fast lanes. Carpools and vanpools with at least four persons may use the fast HOV lanes free of charge. LOVs in the fast lanes are electronically tolled. Tolls are set in real time to limit traffic to the maximum that can be accommodated at free-flow speeds. If traffic volume in the fast lanes approaches the maximum that can be accommodated at close to free-flow speeds, tolls are increased to discourage entry by additional low-occupancy vehicles. Motorists are advised of the toll rate changes through electronic message boards located in advance of the entry points to the fast lanes.

The subsidies needed for improved transit services during rush hours would certainly be far less than the \$9 per trip public subsidy needed to support solo driving. The previously cited 1993 FHWA study suggests that the cost per transit person trip amounts to about \$5, some of which can be recovered from fares. In addition, privately

operated jitneys (similar to airport limousine services) could use the fast lanes to provide fast, reliable, safe, comfortable, and courteous door-to-door service—including pick-ups and drop-offs—at least as quickly as LOVs driving on congested lanes. Public subsidies to these jitneys could take the form of public support for insurance costs, which would be a fraction of the high cost to serve peak-period solo-driver trips on added high-cost lanes. In August 2001, focus groups consisting of drivers who currently travel in SOVs and who were presumably wedded to their automobiles were revealed that even die-hard solo drivers would be happy to give up solo driving if such jitney services were available to them. Unregulated privately operated jitney services in New York and Miami are able to provide service without public subsidy, suggesting that increased costs resulting from regulation of these private services could easily be subsidized from toll revenues.

In the remaining regular lanes (i.e., non-fast HOV lanes), constricted flow would continue, but drivers would be compensated with toll credits. Depending on the number of previously free lanes converted to fast HOV lanes, relative to the total number of previously available free lanes, credits would be valued at 25 to 50 percent of the toll being charged concurrently to LOVs on the fast lanes. Credits could be used as toll payments on days when LOV drivers choose to use the fast lanes, or as payment for public transit or paratransit services or for parking at commuter park-and-ride lots in the corridor. The toll credits would also be funded from toll revenues from the fast lanes. Motorists in the regular lanes who desire credits would need to display electronic toll tags so that their accounts can be credited. The credits compensate motorists for giving up their right to free use of the lanes converted to fast lanes, as well as for any added delays they might face.

Additional delays are highly unlikely for those in the regular lanes because improved ride-sharing, transit, paratransit, and other access-driven strategies supported by excess FAIR lane revenues would

actually increase person throughput by getting many drivers out of their cars and into paratransit, transit, or ridesharing vehicles. Even vehicle throughput would increase in many cases. This is because the reduction of freeway throughput that results from hypercongestion—the effect of what traffic engineers call the “backward-bending curve” of the traffic volume-delay relationship—would be alleviated. As much as a third of freeway capacity currently lost due to hypercongestion would be recovered on the fast lanes, increasing overall freeway vehicle throughput without adding any sprawl-inducing free highway capacity.

For densely developed urban areas, where highway capacity expansion is well-nigh impossible due to cost or environmental considerations, FAIR lanes could increase the people-carrying capacity of existing highway lanes by shifting a large number of previous solo-drivers to carpools, express bus services, and paratransit services. It would thus provide for new travel needs generated by economic growth. Those unwilling or unable to use transit or jitney services and unable to pay tolls to use the fast lanes would still have the option to use the regular lanes with fair compensation. If federal laws are modified, some portion of the toll revenues could be allocated to subsidies for affordable housing in the corridor for those commuters willing to move closer to their jobs, thus reducing their need to use rush hour transportation capacity.

Equity and Travel Choice Issues

By allowing drivers to “buy their way out of congestion,” conventional HOT lanes might initially seem to favor the wealthy. In contrast, FAIR lanes are socially equitable because they substantially improve access for lower-income individuals, through use of toll revenues to fund needed services:

- Toll credits for those who cannot use alternatives to solo driving.

- Improved transit, par-transit, and ridesharing services for those who can afford alternatives.
- Affordable housing for those who choose to live closer to their work sites (assuming federal laws are modified).

Governments currently fund airports, used primarily by the wealthy, and transit, used primarily by lower-income individuals. Amtrak, owned by the federal government, provides faster services for a premium price on Acela Express trains, while also providing lower cost, slower train service. It could be argued that there is a parallel in the FAIR lanes concept, with government addressing the premium service needs of those willing to pay (many of whom may in fact be wealthy), while at the same time improving access for those not willing to pay the price for premium service, for the greater good of society.

However, experience with HOT lane projects implemented in San Diego and Orange County, California, has shown that even those who do not regularly use the toll lanes value highly their existence and the option to use them if and when they do need premium service. Many types of motorists use toll lanes:

- Blue-collar service personnel trying to squeeze in an extra service call into their work day.
- Parents rushing to the day care center to pick up their children before high late charges take effect (late charges can be as high as \$1 per minute).
- White-collar workers and sales personnel trying to get to an appointment or meeting on time.
- Parents who need to be home in time for family evening activities.

Without the option of priced lanes, these motorists would be trapped in traffic with no choice.

Opportunities for Implementation

FAIR lanes could be established:

- On any congested freeway facility, preferably a facility with at least three lanes in each direction.
- On new freeway lanes. An existing adjacent free lane could be combined with the added lane to create a wider fast section.
- On congested toll roads or bridges. Higher tolls could be charged for use of fast lanes, while motorists in regular lanes could be given discounts, if necessary.
- On existing facilities with underutilized HOV lanes. Where there are at least three adjacent general-purpose lanes, a two-lane fast section can be created by adding an existing adjacent free lane to the HOV lane; the rest of the lanes would serve as regular lanes.
- At freeway entrance ramps. On congested freeways, ramp meters could be installed with tolled bypass lanes. Those waiting for the ramp meters (thus paying for freeway use with their time) could be compensated with toll credits. Compensation would be lower or would not be provided at exurban locations, to discourage exurban development.

The Bottom Line

FAIR lanes can carry many more commuters on existing highway infrastructure during rush hours, improving the ability of metropolitan transportation systems to accommodate job and economic growth. Moreover, transit, paratransit, and carpooling receive a boost because motorists could use the fast lanes and save time or money if they shared the ride.

FAIR lanes offer commuters increased choices, which focus groups have suggested is the concept's most attractive aspect. Motorists could choose to continue to be stuck in traffic (as they were before) in the regular lanes but be compensated. They could choose to zip along without delays in the fast lanes in a carpool free of charge, or they could choose to drive in them solo and pay for the premium service. They could choose to use much improved and subsidized transit or paratransit services, or to live in affordable housing closer to their work sites.

Governments would have a new source of revenue to subsidize access-centered measures such as bus and rail services, paratransit services, ridesharing programs, affordable housing programs, and similar options, which increase the overall access and throughput of people, not cars. By increasing people-throughput and access to the existing developed areas connected by FAIR lanes, the lanes would increase the desirability of these areas and permit their economic growth. FAIR lanes demonstrate that mobility-driven policies such as sprawl-inducing, free, new capacity need not be considered the answer to congestion.

FAIR lanes can significantly reduce overall delay, pollution, greenhouse gas emissions, and energy consumption. Some environmental advocates promote a "let congestion rule" strategy, in the hope that congestion will force commuters to live closer to their workplaces and find alternative modes of transportation. But this is not a sensible strategy, because congestion also affects bus transit and reduces the quality of life and economic prosperity for everyone. FAIR lanes are a better way to achieve environmental goals, while boosting funding for alternative mode choices, economic health, and the quality of life.

FAIR lanes provide an efficient, cost-effective, and financially feasible strategy to meet the U.S. Department of Transportation's central challenge—in the words of Secretary Norman Mineta, "to close the gap between demand for transportation and the capacity of the nation's transportation infrastructure to meet growing demand."

For more information, e-mail Patrick DeCorla-Souza at patrick.decorla-souza@fhwa.dot.gov or telephone him at (202) 366-4076. For more information about FAIR lanes, see "FAIR Lanes: A New Approach to Managing Traffic Congestion," by Patrick T. DeCorla-Souza, Transportation Research Board (TRB) Paper No. 01-2053, presented at the TRB Annual Meeting in January 2001.

Disclaimer: The views expressed in this article are those of the author and do not necessarily represent the views or policies of the Federal Highway Administration or the U.S. Department of Transportation.

Appendix A: Focus Group Report

Two focus groups were conducted on August 21, 2001, in New York City. The groups were composed of commuters who drive their personal cars to work on a regular basis, or who commute more frequently by personal car than by any other transportation mode. All participants were at least 18 years of age, lived outside Manhattan, and were employed either in midtown or lower Manhattan. Each group consisted of a both genders and a mix of commuters who pay for their own parking in Manhattan or are partially or fully compensated for this expense by their employers. John Dunning of Dunning & Company provided moderated, and subsequently analyzed, discussions.

This report summarizes the findings and presents conclusions based on the two focus groups.

Commuting Behavior

Respondents were asked to provide a “snapshot” of their commutes. Most traveled about 45 minutes each way. There were some exceptions to this, most of which were considerably longer in duration. Weekly commuting costs were extremely high, regardless of whether Manhattan parking was covered in full or in part by employers or paid directly by the study participant. In many cases, daily costs were estimated at \$20 to \$30, covering the cost of fuel, tolls, and parking. There was awareness that automobile “wear and tear” should also be factored into this weekly expense, but only a few respondents attempted to estimate this cost item.

These were solo motorists; none of the respondents currently share rides. This behavior was a function of several factors:

- Relatively unique work requirements or rotating schedules that made carpooling unrealistic.
- Place of residence distant from any carpool candidate.
- Desire to maximize control of music, news, temperature levels, smoking, and other conditions during the commute.
- Concern about personal financial liability resulting from an auto accident and resulting litigation.

It was apparent that many of these single motorists prize the independence and privacy offered by their personal cars. This is their “space.” Their investment in personal cars suggested how firmly this behavior is rooted. For these commuters, it seems unlikely that there has ever been more than modest consideration of carpooling.

While some participants reported that there was no alternative to the use of their car because of their work schedules or residential locations, most indicated that public transit options were available to them. Some commented that these were used in particular circumstances, such as inclement weather or personal commitments that made the use of the car inconvenient. A few explained that public transit was used to reduce commuting expense. In any case, public transit was generally regarded as

an unpleasant experience. Participants raised standard transit complaints about overcrowding, air conditioning, heat, and related annoyances.

Options

Four options, all part of the FAIR lanes concept, were reviewed and evaluated individually and as a whole.

Public Transit (Option T)

“More transit service, both bus and subway, will be provided. You will always get a seat and service will be scheduled with greater frequency so the waiting period between bus and trains will be reduced. Buses will run on special fast HOV lanes to reduce congestion.”

Respondents responded favorably to Option T. However, this support was insufficient to persuade much more “occasional” use and, for most, this improved transit service was regarded as a backup.

Limo-Type Service (Option L)

“Fast, frequent and low cost limo-type service will be provided. It will work on a door-to-door basis just like a taxi. It will be affordable. That is, it will cost no more than you are currently spending. It will be comfortable, reliable and safe. Drivers will be courteous. It will take no more time than your current commute and will operate on special fast HOV lanes to avoid congestion.”

There was positive response to Option L, particularly its door-to-door aspect. There seemed to be a willingness to accept something less than “door-to-door,” provided that the pick-up and drop-off points were convenient.

The moderator explained that the limo-type vehicle that would be a minivan. This type of vehicle did not represent a problem for most of the

respondents, although some remarked that this would be like other public transit options where one rides and shares space with strangers. On the other hand, most respondents viewed limo-type service as an alternative to driving their own cars, with the obvious benefit of eliminating vehicle “wear and tear” and reducing the stress of driving.

The overall opinion of limo-type service was favorable and relatively more positive than for public transit. Although a willingness to try this option was heard in both groups, there was some skepticism about limo service’s actual performance.

Carpools/Tolls (Option P) and Credits (Option C)

Participants were told that these options assumed that they were E-ZPass users, that they continued to commute in their personal cars, and that a new toll had been installed on their commuting route. In addition, it was explained that this new toll would be “dynamically priced.”

Carpools/Tolls (Option P)

“This is designed to help you avoid congestion. You will drive on special Fast HOV lanes. If you carpool with three other people during rush hours, you will not pay a toll to use these lanes. If you drive alone or with less than a total of four people in the car, you may still use these HOV lanes, but you will pay a toll.”

“The amount of the toll will depend on the traffic levels in the fast HOV lanes at the time your car enters the toll area. It will depend on the amount of time saved by using the fast HOV lanes. The toll could range from \$2 to \$8. You will be informed in advance by signage what the toll for HOV usage is. If you decide not to travel the HOV lanes, you will have time to divert to non-HOV lanes where there is no toll.”

Participants were told that the average toll would be about \$4 and that the fast HOV lane would be created from existing free lanes as opposed to the

addition of new lanes on their commuting route. Respondents were asked if the Carpool/Toll Option (P) would encourage them to carpool. Although some reported that this would be a consideration, the prevailing opinion was that they would not carpool.

They were asked whether they would use the fast HOV lane, assuming that the toll was \$4 and that there were fewer than four passengers in the car. The consensus was that unless there were unusually pressing circumstances, they would not pay the toll and would ride in the free regular lanes.

The first group generally preferred not to pay the \$4 toll to avoid a 15-minute delay. The collective view of these commuters was that a delay of 15 minutes did not justify paying the \$4 toll. In the second group, the delay was quoted as 30 minutes. With this duration, willingness to pay the toll expanded. In fact, some participants in the second group said that they would pay more than the \$4 toll to avoid a 30-minute delay.

Credits (Option C)

“Assume that you are a solo motorist or that there are fewer than four people in the car. As you know, this means that using the fast HOV lanes requires paying a toll. If you use the free lanes instead of the fast HOV alternative, you ride free and you accumulate toll credits equivalent to 25 percent of the toll at the time you are traveling. Accumulated credits will allow free use of the fast HOV lanes even if there are fewer than four people in the car. Credits can also be used to pay for transit, parking at transit park-and-ride lots or limo service.”

Reaction to credits was generally positive. While the participants understood credits in terms of accumulation, several participants had difficulty understanding that this was compensation for the conversion of an existing free regular lane into the fast HOV alternative.

Whether or not this rationale was understood, participants reasoned that they had no choice but to commute. Thus, for the clear majority who would ride the free lanes on a normal basis, the credits were regarded as “getting something for nothing.” This was appealing for most and the question of whether 25% versus 50% was sufficient compensation was not an issue.

A minority believed that these credits would convert existing public transit users into personal vehicle drivers, thus stimulating greater traffic congestion on the free lanes. This would in turn create greater usage of the fast HOV lane and this combination would defeat the purpose of the carpools and tolls (Option P) and credits (Option C).

Opinions were divided on how the credits should be redeemed: to cover the fast HOV lane toll, to pay for transit usage, limo-type service, or parking at transit park-and-ride lots.

Perceptions of Overall FAIR Lane Concept

The strong majority indicated overall support for FAIR lanes. Although personal interest in each option varied, participants noted that the number of alternatives included in the concept and its flexibility in terms of personal usage was a key reason for their support.

Conclusions

1. Based on comments from the two focus groups, it seems unlikely that the FAIR lane concept would stimulate greater carpooling.
2. Unless there are unusually pressing needs, these solo vehicle commuters would normally ride the free lanes to avoid the fast HOV toll.
3. While not investigated in detail in these groups, participants seemed to have no difficulty understanding the toll concept of “dynamic pricing.”

4. Although the thinking behind the free regular lane credits was unclear to many participants, there was enthusiastic acceptance of the concept of credits and their accumulation. How these credits would be redeemed was largely a matter of personal choice. No clear redemption pattern was seen.
5. To the two focus groups, the key strength of the FAIR lane concept was the alternative choices it provides. Beyond this, the availability and delivery of improved public transit operation (Option T) and limo-type service (Option L) could mitigate the possibility of increased use of personal vehicles that might be triggered by the credit offering.

Appendix B: Conference Participants

The Role of FAIR Lanes in the New York Metropolitan Region

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Sherri Alston

Federal Highway Administration
400 Seventh St., SW
Washington, DC 20590
Ph: 202-366-9232
Fax: 202-366-7696
sherri.alston@fhwa.dot.gov

Morteza Ansari

Keep Middlesex Moving
100 Bayard St., 2nd Floor
New Brunswick, NJ 08901
Ph: 732-745-4465
pcantu@kmm.org

Richard Backlund

Federal Highway Administration
One Bowling Green, Room 428
New York, NY 10004-1415
Ph: 212 668-2205
Fax: 212 668-2136
richard.backlund@fhwa.dot.gov

John Baniak

I-95 Corridor Coalition
77 Belmont Dr.
Saratoga Springs, NY 12866
Ph: 518-584-4826
Fax: 518-584-4827
jbaniak@nycap.rr.com

Janine Bauer

Tri-State Transportation Campaign
240 East 35th St., Suite 801
New York, NY 10036
Ph: 212-268-7474
Fax: 212-268-7333
jbauer@tstc.org

Rhoda Becker

Nassau County Planning Department
400 County Seat Dr.
Mineola, NY 11501
Fax: 516-571-3839

Wayne Berman

Federal Highway Administration
400 Seventh St., SW, HOTM-1
Washington, DC 20590
Ph: 202-366-4069
wayne.berman@fhwa.dot.gov

Kiran Bhatt

KT Analytics
103 Baughman's Lane
Suite 176
Frederick, MD 21702
Ph: 301-263-1150
Fax: 301-263-9589
kbhatt@mindspring.com

Gerald Bogacz

New York Metropolitan Transportation Council
One World Trade Center
Suite 82 East
New York, NY 10048
Ph: 212-938-3443
GBOGACZ@gw.dot.state.ny.us

Lou Capadona

Transit Plus
One Penn Plaza East
Newark, NJ 07105
Ph: 973-491-7109

Ken Champagne
U.S. Environmental Protection Agency
290 Broadway, 25th Floor
New York, NY 10007-1866
Ph: 212-637-3741
Fax: 212-637-3901

John Ciaffone
TransOptions Inc.
2 Ridgedale Avenue
Cedar Knolls, NJ 07927
Ph: 973-267-7600
Fax: 973-267-6209
jciaffone@transoptions.org

James Crane
RideWise of Raritan Valley
166 West Main St.
Somerville, NJ 08876
Ph: 908-704-1011
Fax: 908-704-1494

Patrick Decorla-Souza
Federal Highway Administration
Office of Transportation Policy Studies
400 Seventh St. SW
Washington, DC 20590
Ph: 202-366-4076
Fax: 202-366-7696
patrick.decorla-souza@fhwa.dot.gov

Michelle Fuller
Federal Highway Administration
Leo W O'Brien Federal Building
Clinton Avenue & North Pearl Sts., #719
Albany, NY 12207
Ph: 518-431-4125
michelle.fuller@fhwa.dot.gov

Paul Griffin
New York State Department of Transportation
State Campus Building 5309
Albany, NY 12232
Fax: 518-485-8276

Edward Gross
New Jersey Turnpike Authority
P.O. Box 1121
New Brunswick NJ 08903
Ph: 732-247-0900
Fax: 732-247-3472

Leon W. Heyward
NYC Department of Transportation
Battery Maritime Building
Whitehall and South St., 4th Floor
New York, NY 10004
Ph: 212-487-8420
Fax: 212-487-8446

Abbas Hirya
New Jersey Department of Transportation
P.O. Box 600
1035 Parkway Avenue
Trenton, NJ 08625
Ph: (609) 530-5950

William G. Joyce, Jr.
New York Motor Truck Association
828 Washington Avenue
Albany, NY 12203
Ph: 518-458-9696
Fax: 518-458-2525
bjoyce@nytrucks.org

Tom Kearney
Federal Highway Administration
Leo W O'Brien Federal Building
Clinton Avenue & North Pearl Sts., #719
Albany, NY 12207
Ph: 518 431-4125
thomas.kearney@fhwa.dot.gov

Tom Kearse
Hudson TMA
150 Warren St.
Jersey City, NJ 07302
Ph: (201) 432-2200
Fax: (201) 946-9390

Peter King
Supervisor, Planning and Development
New York State Department of Transportation
Hunters Point Plaza
47-40 21st St.
Long Island City, NY 11101
Ph: 718 482-4559
Fax: 718 482-6686
pking@gw.state.dot.ny.us

Damian Kulash

Eno Transportation Foundation
1634 I St., NW, Suite 500
Washington, DC 20006
Ph: 202-879-4711
Fax: 202-879-4719
dkulash@enotrans.com

Susan Kupferman

Rudin Center for Transportation Policy and
Management
Robert F. Wagner Graduate School of Public Service
New York University
5 Washington Square
Room 42 A
New York, NY 10003
Ph: 212-998-7547
Fax: 212-995-3890
susan.kupferman@nyu.edu

James Manzollilo

NYS DOT
47-40 21st St., 7th Floor
Long Island City, NY 11101
Ph: 718-482-4520
Fax: 718 842-7688

Jonathan McDade

Federal Highway Administration
Leo W. O'Brien Federal Building
Room 719
Clinton Avenue & North Pearl St.s
Albany, NY 12207
Ph: 518-431-4125
jonathan.mcdade@fhwa.dot.gov

Andrea Miles-Cole

New York Metropolitan Transportation Council
One World Trade Center
Suite 82 East
New York, NY 10048
Ph: 212-938-3443

Lee Munich

State and Local Policy Program
Hubert H. Humphrey Institute of Public Affairs
University of Minnesota
157 Humphrey Center
Minneapolis, MN 55455
Ph: 612-625-7357
lmunnich@hhh.umn.edu

Mark F. Muriello

Port Authority of New York and New Jersey
One World Trade Center
Suite 64SE
New York, NY 10048
Ph: 212-435-7959
Fax: 212-435-7339
mmuriello@panynj.gov

Krishna Murthy

Meadowlink
201 Route 17 North
Rutherford, NJ 07070
Ph: 201-939-4242
Fax: 201-939-2630

Benjamin Perez

Parsons Brinckerhoff
One Penn Plaza
New York, NY 10119
Ph: 202 465-5000

John Pilner

Putnam County Planning Department
841 Fair St.
Carmel, NY 10512

Jim Pinkelman

Public Affairs Office
Federal Highway Administration
400 Seventh St., SW
Washington DC 20590
Ph: 202-366-0660
james.pinkelman@fhwa.dot.gov

Edward J. Regan

Senior Vice President
Wilbur Smith Associates
135 College St.
New Haven, CT 06510
Ph: 203 865-2191
Fax: 203 624-0484
eregan@wilbursmith.com

Robert Ritter

Eno Transportation Foundation
1634 I St. NW, Suite 500
Washington, DC 20006
Ph: 202-879-4705
Fax: 202-879-4719
rob@enotrans.com

Jack Schmidt

Deputy Director, Transportation
NYC Planning Commission
2 Lafayette St., Room 1200
New York, NY 10007
Ph: 212-442-4653
Fax: 212-442-4724
j.schmidt@planning.nyc.gov

Laura Shabe (Facilitator)

305 East 86th St., #12 BW
New York, NY 10028

Letitia Thompson

Federal Transit Administration
One Bowling Green, Room 429
New York, NY 10004-1415
Fax: 212-668-2136

James Wang

Greater Bridgeport Regional Planning Agency
525 Water St.
Bridgeport, CT 06604
Ph: 203-366-5405

Robert Wilson

South Western Regional Planning Agency
Stamford Government Center
888 Washington Boulevard, 3rd Floor
Stamford, CT 6901
Ph: 203-316-5190
Fax: 203-316-4995

Jeffrey Zupan

Regional Plan Association
4 Irving Place, 7th
New York, NY 10003
Ph: 212-253-2727
Fax: 212-253-5666
jmzupan@earthlink.net