

Creating Transportation Demand Management Solutions for Honolulu: Use of a Joint Public-Private Task Force To Address Transportation Issues

MARK R. WILLEY

With the failure of the Honolulu City Council to provide a local funding agreement for the proposed fixed guideway rail project in the fall of 1992, the burden to develop a direction for future transportation planning on the island of Oahu shifted from the city administration to the city council. To meet this public expectation, the council established the joint public-private Task Force on Traffic and Transportation Management, whose goal was to develop economically reasonable nonrail alternatives to help alleviate congestion in Honolulu. The processes used by the task force's Subcommittee on Employee Commute Options for developing transportation demand management strategies applicable to Honolulu and the subcommittee's recommendations are discussed.

The defeat of Honolulu's light-rail initiative by the city council in 1992 resulted in the end to 30 years of rail planning and left Honolulu with no cohesive plan for dealing with traffic congestion. With worsening traffic problems becoming a political liability, the city council turned to the private sector for help and established a joint private/public sector task force on transportation and traffic management planning. The goal of this 60-member task force was to develop recommendations that would provide, within the constraints of public funding, sufficient nonrail transportation alternatives to ensure adequate mobility for Oahu's citizens.

Members of the task force, invited to participate by the chair of the Council Committee on Transportation, included representatives of state and county transportation agencies, private corporations and agencies, local private transit and taxi groups, and special interest groups, such as the antirail Committee on Sensible Transit, Hawaii's Thousand Friends, and the League of Women Voters.

The task force structure consisted of four subcommittees, coordinated by a 12-member executive committee, representing various aspects of the transportation management picture:

1. Highway capacity changes,
2. Public and private transit and paratransit opportunities,
3. Employee commute options, and
4. Pricing strategies and other incentives/disincentives.

This paper focuses on the process utilized by the Subcommittee on Employee Commute Options in developing transportation demand management (TDM) strategies and outlines the subcommittee's TDM recommendations for Oahu.

SUBCOMMITTEE ON EMPLOYEE COMMUTE OPTIONS

The Subcommittee on Employee Commute Options consisted of six individuals: five private-sector members and the head of the state's rideshare program. The private-sector members had varied backgrounds; included were a transportation planner, the director of the local Chamber of Commerce, an architect, a construction manager, and a hospital employee. Except for its own expertise, the subcommittee received no technical assistance from the sponsoring government. Deliberations were free flowing, and decision making was done by consensus, reflective of local Hawaiian customs and culture.

In considering TDM options for Oahu, the subcommittee examined several factors. First, although mandatory programs can increase the participation rate among employers (1), members did not believe that the general public perceived that congestion levels were high enough to create the political atmosphere necessary for passage of any mandatory trip-reduction ordinance. Also, Oahu is an air quality attainment area and does not fall under the mandatory trip-reduction regulations included in the 1990 Clean Air Act Amendments.

Second, members felt that various types of employers, that is, government versus private, large versus small, as well as employer location—central business district (CBD) versus non-CBD—could play a part in both the effectiveness of various TDM components and their attractiveness to employers.

Third, implementing a voluntary private-sector program on a wide basis could be accomplished only if

- Government led the way with its own comprehensive programs;
- Private employers could see benefits to their businesses from the TDM program;
- Private employers had options to pursue and to tailor to their own environment—not mandated options that may be inappropriate to their situation;
- Private employers could see the effectiveness of their programs on congestion, either at their work site or on an areawide basis;
- Government removed legislative barriers to TDM implementation in the private sector; and
- Government provided tax credits or other incentives for successful private-sector programs.

Given the various factors involved, the subcommittee defined its overall task as a two-tiered challenge: (a) how to encourage em-

ployees to change their commuting habits and (b) how to enroll employers in voluntarily adopting policies that would encourage their employees to change their behavior.

EFFECTIVENESS AND ATTRACTIVENESS OF ALTERNATIVES

In developing recommendations for TDM programs, the subcommittee used an achievement matrix ranking system that considered both the effectiveness and attractiveness of various options to different employer groups. Employers were categorized into the following groups reflecting their makeup, location, and commute demands placed on their employees:

- State government (including school employees),
- City and county of Honolulu government,
- Federal military facilities,
- Federal civilian agencies located in the CBD,
- Large employers located in the CBD (100 or more employees),
- Large employers located outside the CBD (suburban),
- Small employers located in the CBD,
- Small employers located outside the CBD,
- Waikiki hotels,
- Existing businesses,
- New businesses,
- Relocating businesses,
- Businesses with a large number of shift workers, and
- University of Hawaii (staff and students).

The effectiveness of various TDM options and the attractiveness to the employer were then estimated. The following scale was used to score each TDM option according to the various employer types: 1 = minimally effective, 2 = marginally effective, and 3 = very effective.

Blanks were left when members felt they lacked sufficient information or when they felt an option did not apply to a particular

employer. These rankings were averaged across the subcommittee members and summed. Given the 14 employer groupings and a possible score from 1 to 3, the maximum amount possible for an option was 42 points. The rankings for the estimated effectiveness of each TDM option are given in Table 1.

Measures that limit parking or provide parking surcharges were considered most effective in stimulating the movement toward alternative modes of transportation, receiving 42 and 38 points, respectively. Also, ride matching, financial incentives, and optional work hour arrangements were considered an effective way of providing the alternative modes for employee use, although their scores were somewhat lower (between 29 and 33 points). Conversely, allowing employers to set their own goals was not considered very effective; programs that consisted only of information and marketing strategies also were not considered effective.

Table 1 also indicates which options may be most appropriate for each employer group. Again, restricting parking availability was considered most effective for all employer groups. However, parking surcharges were not viewed as effective for employers outside the urban area because of the availability of free parking near work sites. In addition, the lack of consistent bus service and routes outside the urban core lowered the expected effectiveness of supplying transit passes or vouchers.

From the employer's standpoint, however, the attractiveness of an option may not stem from its overall effectiveness, but from its overall cost. Table 2 indicates that low-cost programs, such as information and marketing, and those that are revenue generators, such as parking surcharges, are considered to be much more attractive than more cost-intensive measures, such as a guaranteed ride home program or an available vehicle fleet for carpools or vanpools. The subcommittee did not find that the type of employer group caused a significant variance in the attractiveness of TDM options.

Examination of Tables 1 and 2 indicates that measures containing elements of parking restrictions and increased parking costs, in conjunction with increased commuting alternatives, either through subsidized transit or ridematching for carpools and vanpools, can create an effective, attractive TDM program on Oahu. Thus, the

TABLE 1 Estimated Effectiveness on Oahu of Various TDM Options by Employer Group

	State	City & County	Military	Fed. Civil.	CBD > 100	Non-CBD > 100	CBD < 100	Non-CBD < 100	Resort Hotels	Exist. Bus.	New Bus.	Reloc. Bus.	Shift Work	Univ. of Haw.	Totals
Restricted Parking Availability	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	42.00
Employers Develop Own TDM Program	3.00	3.00	2.75	3.00	3.00	2.75	2.75	2.50	3.00	2.75	2.75	2.75	2.50	3.00	39.50
Parking Surcharges	3.00	3.00	2.67	3.00	3.00	2.67	2.67	2.33	3.00	2.67	2.67	2.67	2.33	3.00	38.68
Ridematching	2.75	2.75	2.50	2.75	2.75	2.00	2.00	1.75	2.25	2.33	2.33	2.50	1.75	2.67	33.08
Telecommuting Option	2.50	2.50	2.25	2.50	2.50	2.25	2.25	2.00	2.50	2.25	2.25	2.00	2.00	2.33	32.08
Transportation Allowances	2.33	2.33	2.33	2.33	2.33	2.33	2.33	2.33	2.33	2.33	2.33	2.00	2.33	2.00	31.96
Vehicles Available for Work-Related Trips	2.50	2.50	2.25	2.50	2.50	2.25	2.25	2.00	2.50	2.00	2.00	2.25	3.00	2.33	32.83
Guaranteed Ride Home	2.50	2.50	2.25	2.50	2.50	2.25	2.25	2.00	2.50	2.25	2.25	2.00	2.00	2.00	31.75
Transportation Coordinator	2.33	2.33	2.00	2.33	2.33	2.00	2.00	1.67	2.33	2.00	2.00	2.00	1.67	2.00	28.99
Alternative Work Hours	2.25	2.25	2.00	2.25	2.25	2.00	2.00	1.75	2.25	2.00	2.00	1.75	2.00	2.33	29.08
Employer-Provided Bus Passes	2.25	2.25	2.00	2.25	2.25	2.00	2.00	1.75	2.25	2.00	2.00	2.00	1.75	2.00	28.75
Preferential Parking	2.25	2.25	2.00	2.25	2.25	2.00	2.00	1.75	2.25	2.00	2.00	2.00	2.25	2.00	29.25
Employers Set Own Goals	2.00	2.00	1.75	2.00	2.00	1.75	1.75	1.50	2.00	1.75	1.75	1.50	1.50	1.33	24.58
Vehicles Available for Car/Vanpools	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	2.00	2.00	24.04
Information and Marketing Provided	1.75	1.75	1.50	1.75	1.75	1.50	1.50	1.25	1.75	1.50	1.50	1.25	1.25	1.00	21.00
Bike Racks, Showers, Lockers Provided	1.50	1.50	1.50	1.50	1.50	1.33	1.50	1.33	1.33	1.33	1.33	1.50	1.33	1.33	19.81

TABLE 2 Estimated Attractiveness on Oahu of Various TDM Options by Employer Group

	State	City & County	Military	Fed. Civil.	CBD > 100	Non-CBD > 100	CBD < 100	Non-CBD < 100	Resort Hotels	Exist. Bus.	New Bus.	Reloc. Bus.	Shift Work	Univ. of Haw.	Totals
Information and Marketing Provided	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.67	35.17
Employers Develop Own TDM Program	2.25	2.00	2.00	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.50	2.25	2.67	31.67
Preferential Parking for Car/Vanpools	2.33	2.33	1.67	1.67	2.00	1.67	1.50	2.00	2.00	2.00	2.00	2.00	2.00	2.50	27.67
Parking Surcharges	1.37	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	2.00	1.67	3.00	24.74
Alternative Work Hours	2.25	2.00	2.00	2.00	2.00	2.00	1.75	1.75	1.33	1.67	1.67	1.33	1.50	1.00	24.25
Employers Set Own Goals	2.00	2.00	1.75	1.75	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.75	1.50	1.67	22.92
Ridematching	2.00	1.33	1.33	1.33	1.50	1.50	1.50	1.50	1.25	1.33	1.33	2.25	1.33	2.67	22.15
Restricted Parking Availability	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	2.50	22.00
Employer-Provided Bus Passes	1.33	1.33	1.33	1.33	1.67	1.67	1.33	1.33	1.33	1.33	1.33	2.00	1.33	2.50	21.14
Transportation Coordinator	2.00	1.33	1.33	1.33	1.50	1.50	1.33	1.33	1.50	1.33	1.33	1.67	1.33	2.00	20.81
Telecommuting Option	1.33	1.33	1.33	1.33	1.50	1.50	1.33	1.33	1.33	1.33	1.33	1.75	1.33	2.33	20.38
Bike Racks, Showers, Lockers Provided	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	2.50	19.79
Transportation Allowances	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.50	18.79
Vehicles Available for Work-Related Trips	1.00	1.00	1.00	1.00	1.50	1.50	1.00	1.00	1.50	1.00	1.00	1.75	1.00	2.00	17.25
Vehicles Available for Car/Vanpools	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.50	1.00	2.00	15.50
Guaranteed Ride Home	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	15.00

subcommittee's findings confirm studies done across the country that have shown that carpooling support programs in conjunction with parking management programs have been the most effective in diverting single-occupant vehicle trips (2,3). At the same time, the relatively high ranking given to "employers developing their own TDM program," from both the effectiveness and attractiveness standpoints, recognizes the fact that employers feel they must take into account their own location and operational circumstances as well as consider the wants and needs of their own employees in developing a successful TDM program.

TDM RECOMMENDATIONS FOR OAHU

A ranking of the estimated effectiveness and attractiveness of the various TDM components concluded that a mix of carpool-supporting and parking management measures could be the most effective in lowering peak-hour travel and most attractive to employers in either the private or public sectors. Such measures would include the following:

- Providing information and marketing for the program,
- Providing ridematching services,
- Providing preferential parking for carpool users,
- Providing alternative work hour opportunities for employees,
- Providing a guaranteed ride home for carpool users,
- Providing a transportation coordinator,
- Limiting parking availability to employees, and
- Implementing parking surcharges and fees for single-occupant vehicle use.

Private employers were seen by the subcommittee members to be more likely to implement TDM programs only after the following circumstances were established:

- Federal, state, and local governments take the lead in the development of their own programs.

- Private employers are shown the benefits to their business from TDM programs.
- Private employers are presented with sufficient options to pursue and tailor to their own environment and needs of their employees, rather than faced with legislated mandatory trip reduction measures.
- Private employers are shown the effectiveness of their programs on reduced peak-hour trips, either at their work site or on an areawide basis.

Clearly, the subcommittee believed that the burden of establishing TDM programs would lie with the state and city governments. Thus, it was felt that the state of Hawaii and city and county of Honolulu should take the initiative in encouraging TDM program development for their own employees by

- Developing comprehensive and coordinated programs for each agency that are truly effective and not merely Band-Aid solutions;
- Discontinuing TDM-contradictory government programs, such as charges for employee parking that are below the market rate;
- Encouraging the use of compressed work weeks, staggered work hours, and Saturday workdays;
- Encouraging the greater use of at-home telecommuting by developing guidelines to address supervision and liability questions;
- Encouraging greater use of government vehicles for work-related travel by revising current checkout procedures and eliminating personal vehicle reimbursements when government vehicles are available;
- Establishing an effective data base of commuting statistics by department for use in building an effective combination of TDM measures; and
- Revising and passing legislation to support the development of TDM programs in the public sector (such as charging prevailing market rates or higher for parking, changing restrictive policies concerning the use of fleet vehicles, revising transit services to provide greater coverage, and revising work hour policies, including TDM benefits in renegotiations of union contracts).

CONCLUSIONS

The development of an effective areawide TDM program for Oahu requires a major shift in attitude of the current government institutions, especially among the members of the Hawaii legislature. This change will come about only when the general public perceives that the level of congestion requires certain sacrifices in their current commute choices.

Also, if government cannot overcome the barriers set up by years of status quo and "we-can't-do-it" mentalities, private employers will never be convinced of the need to make changes. Government must discontinue the contradictory nature of its current policies, which provide employee parking at below-market rates and discourage flextime and compressed work weeks. If this does not occur, no amount of private-employer participation will create an effective overall program. However, if government can overcome its own barriers to implementation, private enterprise will be more

likely to follow its lead, and the overall effectiveness of an areawide program can be increased.

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