Tourist Oriented Directional Signs: A Self-Supporting Program to Promote Rural Business and Economic Development

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Benefits, costs, and procedures, were evaluated in Oregon and Washington for promoting rural tourist-oriented businesses by administering the erection of uniform roadway signs which identify rural small businesses and indicate their direction and distance. The programs in Oregon and Washington were studied because their heavily subscribed Tourist Oriented Directional Signs (TODS) programs are among the earliest programs developed. Both TODS programs are supported entirely from nominal business subscriber fees (of a few hundred dollars per year), with the total economic benefits estimated to be nearly 2,500 times their cost in Oregon and over 1,000 times their cost in Washington. This article suggests methods for implementing a TODS program; indicates appropriate subscriber fees that will cover program costs and meet state objectives of making the program self-supporting; addresses alternative organizational structures that can be used within existing state administrative constraints and opportunities; and identifies key implementation issues for states to address in developing their programs.

If tourists traveling through rural areas could be made more aware of the existence of local businesses, of the goods and services they offer, and of how best to access the businesses, millions of tourists' dollars that now simply pass by could be directed to small rural businesses and the regional economies.

In 1968, the Federal Highway Beautification Act encouraged states to purchase and remove existing billboards along highways and to restrict new commercial advertising. Few billboards remain in rural areas, and large outdoor advertising firms have bought most of them and charge a high fee for their rental. State and federal laws severely limit any other commercial signing or directional information within interstates and state highways. Therefore, many small businesses have not had access to outdoor advertising in the most important locations, namely adjacent to state highways and interstates.

At the time of this study, 36 states had instituted logo signing programs, which provide standardized signs with company logos for businesses which meet narrow guidelines on the types of services they provide. The only services eligible for logo signs are fuel, food, lodging, and camping. These businesses usually are located very near the highway where the logo signs are posted. Consequently, the logo programs have mainly benefited the large chains and franchise operations and not the numerous other small rural businesses that offer goods and services desired by the motoring public.

To alleviate this problem, the Federal Highway Administration (FHWA) authorized six states to experiment with

David M. Dornbusch is the President of Dornbusch & Company, a consulting firm in San Francisco, California. Claudia J. Kawczynska is a Research Analyst with the same firm. Tourist Oriented Directional Signs (TODS) in the late 1970s and early 1980s. After a period of review and evaluation, the FHWA gave its authorization to the TODS program and issued its guidelines in the 1988 *Manual on Uniform Traffic Control Devices*. Although states operate the TODS program somewhat differently, generally private businesses unable to qualify for the logo program pay the states to erect and maintain standard signs which indicate the name of the business and the direction and distance to the business' location. The signs are authorized only on primary or secondary state highways, and at this time are restricted from all interstate highways. The subscription and annual maintenance fees are normally quite low, as the states seek only for the programs to cover their expenses.

The primary objective of this study was to obtain specific information to demonstrate the cost-effectiveness of the TODS program for helping rural tourist-oriented businesses reach a larger portion of the highway motorist market and present the information in a way that would enable states to understand the financial implications of developing a new TODS program. The study also sought to provide information about the organizational structures used to implement the programs.

STUDY METHODOLOGY

As the TODS concept is relatively new, answers were , sought to the above questions by studying the Oregon and Washington TODS programs, as they are among the oldest and most extensive of all state programs. Also, because TODS programs in those two states are structured somewhat differently, they were considered potentially useful to demonstrate how the differences might affect their relative costeffectiveness.

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Program Benefits

Estimation of the benefits began with a determination of the magnitude of business sales which were a direct result of the TODS influence. The total economic benefits were then estimated by applying appropriate multipliers according to the types of businesses affected and the regions of those businesses.

The differences in the structures of the TODS programs in Oregon and Washington evidently has had an effect on the degree of acceptance and satisfaction among business subscribers in the respective states. The benefits were perceived by business operators as being quite different, and it was considered important to derive conclusions about benefits and the benefit/cost relationship for each state separately.

Program Costs

Little difficulty was encountered in identifying the direct costs associated with reviewing and approving TODS applications or for fabricating, installing, and monitoring the signs. However, there were some difficulties in identifying the indirect costs of overall program administration. Washington's program is directed and managed by the district offices of the Department of Transportation, while Oregon's program is run by a single Travel Information Council (TIC).

However, even when the differences in program structures were recognized, it was difficult to isolate the TODS administrative costs. The TODS administrative personnel have responsibility for a number of other programs as well, and they had difficulty in estimating the proportion of their time and expenses devoted exclusively to TODS, since staff spends relatively little time in general TODS administration. While this presented a technical problem in terms of estimating the specific magnitudes of the administrative costs, it did indicate that the relative magnitudes of the Washington and Oregon TODS administrative costs were quite low. Since the economic benefits of the TODS programs turned out to be very great relative to the operational and administrative costs, the relative magnitudes of the administrative costs were sufficient to draw conclusions about the benefit/cost ratio.

Institutional Implementation Issues

The institutional obstacles to implementing a TODS program were identified from interviews with the state personnel responsible for designing the programs; writing the rules and obtaining approval from the necessary legislative and/or administrative agencies; administering the programs in the implementing states; as well as informants with the Federal Highway Administration having responsibility for general oversight and regulation of the programs.

Survey Design

Three types of surveys were conducted. From the program administrators in Oregon and Washington, information was obtained about the costs to develop and operate the TODS, the fees levied on private businesses for enrollment and continued subscription in the TODS program, problems encountered in developing and operating the programs, and methods used to overcome those problems. Washington does not break down the administrative costs for each program. However, Oregon had analyzed its TODS program costs and

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the administrator was able to provide both fixed and variable operating cost information, by cost category.

From private business operators, information was obtained about perceptions of the relative importance of TODS and other influences on individual business sales. Recognizing that patrons were to be interviewed at TODS subscribing businesses, candidate businesses were identified which (1) represented a reasonable cross-section of business types enrolled in the TODS program statewide and (2) were located in clusters to facilitate implementation of the patron surveys.

Information was obtained from business patrons about their perceptions of the importance of TODS and other influences on their business visitation and purchase of goods and services. As in the business operator interview, questions were ordered so as not to indicate which particular influences on patron visits were the main interest of the research until after perceptions about the relative importance of all influences had been obtained.

FINDINGS AND CONCLUSIONS

The following discussion presents the findings and conclusions from the survey research and related investigations of the Oregon and Washington TODS programs; these are supplemented with relevant information obtained from other states. Since multiple regression analysis based on data provided exclusively by business operators was not possible, a method was developed to analyze the data obtained in the business operator interviews, the information obtained from the business patron interviews, and census data on business sales to estimate the TODS impact on business sales.

Business Operator Survey Results

Washington business operators interviewed indicated that they felt TODS had a significant impact on their business sales. All had a significant portion of their business come from highway travelers.

Some Washington business operators estimated that as much as 50% to 80% of their sales were to highway travelers. Some of the operators of these businesses attributed as much as 50% to 70% of their total sales to the influence of their TODS signs. In addition, nearly all of those who could not estimate a specific percentage increase said that TODS was an important factor in generating sales increases.

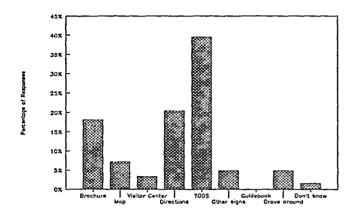
The Oregon operators also indicated that they felt TODS had a significant impact on their business sales; some of the larger wineries credited TODS with producing as much as 30% of their highway user sales. Two wineries ascribing only 20% of their sales totals to highway users indicated that 80% to 100% of that volume was produced by the TODS signs alone.

Of the operators who felt they could estimate the portion of sales attributable to TODS, seven estimated 30% or less, two estimated 50%, and six estimated 70% or more of a TODS-generated increase, with a fairly even distribution among wineries and other types of businesses. About half of the operators interviewed were unable to estimate the magnitude of the TODS influence on their sales, although nearly all said that TODS was an important factor in generating sales increases. One reason three operators had difficulty estimating TODS impact was that they had participated in the TODS program from the time of opening their business and had never had sales experience without TODS' presence.

Business Patron Survey Results

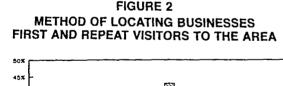
Method of Finding Businesses. Figure 1 indicates the clear dominance of TODS as the method most used for locating the various businesses surveyed. Used by 39% of the business patrons, TODS was found to be nearly twice as important as personal directions (21%) and more than twice as important as brochures (18%), the next two most popular methods of locating the businesses.

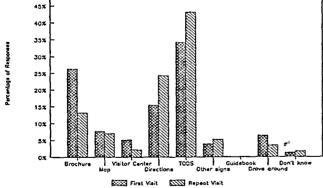
FIGURE 1 METHOD OF LOCATING BUSINESSES WASHINGTON AND OREGON COMBINED



TODS was by far the leading method for directing patrons to the wineries surveyed; 44% of the responding patrons used TODS. For nonwinery businesses, TODS was still the leading method for locating businesses at 34%, with personal directions a close second at 31%.

First-Time and Repeat Visitors to the Area. Figure 2 shows that TODS was used more frequently for finding the businesses surveyed than any other method by both first-time and repeat visitors to the area. For first-time visitors to the area, brochures were used nearly as much as TODS (26%)





and 34%, respectively), but no other method was even half as important.

TODS was more dominant in Oregon than in Washington (at 38% versus 28% for first-time area visitors, and 48% versus 36% for repeat visitors to the area). One possible reason is that TODS subscribers are more clustered in Oregon than in Washington. Once travelers follow the directions of one TODS sign to a business of particular interest, they are more inclined to follow the directions of other TODS signs. Since TODS subscribers are more clustered in Oregon, travelers are inclined to pass more TODS signs on their trip and therefore visit more subscribing businesses.

Business a Specific Destination. Patrons were asked whether the business being visited was a particular destination. In either case, TODS was the dominant method for directing patrons to those businesses — 33% when the business was a specific destination and 48% when it was not, more than twice as important than the next most used method for all patrons interviewed (personal directions at 19%).

The levels of patron use of the various methods in the two states differed somewhat, but the patterns were similar with TODS consistently being the dominant method used regardless of whether the business was or was not a particular destination. In Oregon, TODS led at 36% versus 26% for brochures and 19% for personal directions. In Washington, TODS was used by 31% of the patrons versus 24% for brochures and 25% for personal directions.

When the business was not a particular destination, TODS was more important than all other methods combined in Oregon at 54%, with personal directions the only other significant method at 24%. While TODS was not as dominant in Washington, at 36%, the second most used method was "driving around," at 21% — the only time this method appeared as a significant way of finding a business that was not identified before the trip as a particular destination.

Past and Expected Future Use of TODS. Patrons responded to a series of pointed questions about their past and expected future uses of TODS signs. Most of those surveyed were familiar with TODS previously — 62% in Oregon and 76% in Washington — and nearly two-thirds of the respondents in both Oregon and Washington said that they had used TODS signs to locate other businesses previously. More than half (52%) of the patrons interviewed in Oregon said that they had made unplanned stops in the area because they saw a TODS sign. A lower percentage (37%) said they did so in Washington. Of the patrons interviewed who were not familiar with TODS previously, but had used the signs for the first time, 100% in both states said they would use TODS again.

Findings from Other Relevant Research. Findings from two 1989 Oregon-sponsored studies of out-of-state motorist visitors to Oregon tend to support the importance of providing information services which particularly focus on motorists' needs and desires (Dean Runyan Associates 1989). It was reported that

- 50.9% of the visitors plan their overall route but not individual stops; and 22.9% do little or no pretrip planning;
- 28.6% use roadside signs to determine half or more of their stops; and 10% use signs to determine nearly all of their stops; and
- 49% travel to a number of locations in the state, not visiting just one or a few locations in particular.

These Oregon survey results help to explain the support that the TODS program has received in Oregon. Also, if these 'visitor characteristics can be ascribed to travelers in other states, their influence could lend support to an initiation of a TODS program or validate an ongoing program.

Benefits vs. Costs

Direct Benefits Statewide. Statewide direct benefits of

the TODS programs were estimated from the survey results as follows. TODS-induced direct sales, accruing to representative businesses participating in the TODS program, were estimated from information obtained from both the surveys of the business operators and business patrons. From the patron survey, an estimate was obtained of the percentage of patrons who had decided to visit the business exclusively owing to the influence of TODS signs. From the business operator survey, operator perceptions of those percentages were obtained. The results of the two surveys were compared and an estimate of the TODS impact was derived.

For example, the operator of one winery estimated that 25% of his total sales were attributable to the influence of his TODS signs. He also estimated that about 40% of his total sales were to visitors to his tasting room. In our survey of his patrons, we learned that 52% visited the tasting room entirely as a result of seeing one of the winery's TODS signs. Therefore, the operator's estimates compared favorably with the patron survey results:

Operator estimate of sales attributable to TODS = 25 % compared with — Patron testimony of TODS influence on visitation (52%) times

Operator estimate of tasting room sales share (40%) = 20.8%In choosing one estimate of TODS impact, consideration was given to

- The degree of certainty expressed by the operators and the likely strengths/weaknesses of their perceptions (recognizing, for example, that some operators were more involved in the day-to-day operations than others, and that some had even conducted their own patron surveys); and
- (2) The relative strengths/weaknesses of the patron survey (recognizing, in particular, the sample size and timing of the interviews).

The original plan was to estimate the TODS impact on dollar business sales using sales figures from the particular businesses surveyed. However, too few business operators provided specific figures on their dollar sales to permit that approach to yield a valid estimate. Therefore, information was obtained on average dollar sales for the types and sizes of businesses enrolled in the TODS programs in each state from statewide census figures and a special industry report. The average sales by business type were then multiplied by the average estimated percentage impact of the TODS program derived from the surveys at each business to estimate the dollar value of the direct TODS impact. Therefore, to estimate the total direct benefits of businesses participating in the TODS programs in each state, the following formula was used:

 $DB = (\%S) \times (\$S) \times (\#B)$

where:

- DB = Direct annual benefits (in terms of 1990 dollars);
- %S = Average of the estimated percentage of sales attributable to TODS for each representative business type;
- \$S = Average annual dollar by type of TODS participating businesses in the state; and
- #B = Number of TODS participating businesses, by type, in the state.
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With very few exceptions, participating businesses in both Oregon and Washington fell within one of the following four categories: wineries (and a few breweries); amusement and recreation; gifts, crafts, novelty, and antique shops; and museums and galleries. The exceptions tended to be some businesses that sold various types of agricultural products, such as herb farms, flowers, and bonsai nurseries. As indicated above, wineries are the predominant type of business participating in the TODS programs in both Washington and Oregon. Their common feature, of course, was that they all marketed a significant portion of their wines through direct retail sales.

The other participating businesses provided mainly amusement and recreation services (such as water sports, boat charters, horse stables, sailboarding, golf courses, and off-highway vehicle rentals); sold gifts, works of art, various crafts, novelties, and antiques; or were museums or some type of gallery. All were relatively small rural businesses, and all or nearly all of the goods and services were sold directly to visitors accessing their place of business from the highway.

The average sales, by the types of businesses participating in the TODS programs in Washington and Oregon, are shown below in Table 1. Data for the first three categories were derived from the 1987 Federal Censuses of Service Industries and Retail Trade. Average sales for 1987 were adjusted to 1990 dollars using the consumer price indices for the intervening years, published by the U.S. Bureau of Labor Statistics. Average winery sales were calculated from the sales volumes reported by the participating wineries surveyed. For those wineries that did not report dollar sales, case sales were converted to dollars using the average 1990 price of a tasting room case.

TABLE 1 AVERAGE SALES OF TODS-ENROLLED BUSINESSES, WASHINGTON AND OREGON

| Business Type | Washington | Oregon |
|-----------------------|---------------------|--------|
| Gifts, crafts, etc. | \$ 242 ^a | \$ 251 |
| Amusement, recreation | 343 | 398 |
| Museums, galleries | 42 | |
| Wineries, breweries | 1,879 | 1,182 |

^aThousands of 1990 dollars.

Table 2 shows the direct sales of the TODS signs on the combined business sales for each of the four business categories in each state.

As described above, the impact of the TODS program, in terms of percentage of total sales directly attributable to TODS, was derived from the surveys of business operators and patrons. Using the above formula and the data described, the direct annual benefits of the TODS programs, in terms of 1990 dollar sales generated directly by TODS, were estimated to be \$7,392,000 for Washington and \$18,258,000 for Oregon.

Total Benefits Statewide. The total TODS impacts on the regional and state economies are larger than the direct sales benefits indicated above. This is because direct sales impacts themselves have secondary impacts on the economy that are indirectly derived from the TODS influence. This secondary impact, or ripple effect, is quantified by means of a multiplier that relates the total impact to initial sales at TODS- participating businesses. Different multipliers are used to describe the total economic impact in terms of total purchases or "output," employee earnings, and employment, in terms of numbers of jobs. The multipliers described the relationship between the specific type of business in which the initial purchase was made and the area's overall economy. Therefore, multipliers differ according to the types of businesses initially affected and for relative capabilities of the regional economies to provide goods and services to the businesses initially affected and to suppliers subsequently affected. In this analysis, the focus is on the total purchases "output" multiplier, as the objective is to estimate total economic benefits.

Table 3 presents the output multipliers for the types of businesses enrolled in the TODS programs in Washington and Oregon. The retail multipliers were applied to the estimated TODS-induced sales at the various types of gift, crafts, novelty, antique, and various other shops. The personal services multipliers were applied to the estimated TODS-induced sales of the various amusement and recreation businesses. Museums and galleries represent a mix of personal services and retail operations, and a simple average of the multipliers for those two categories was used. Some businesses include eating and drinking operations, although such operations generally do not represent the primary source of revenues. The multipliers for eating and drinking establishments were presented in the above table to indicate how close they are to the other multipliers, and that this portion of TODS business' sales would not significantly affect the overall estimates of total economic impacts, even if the eating and drinking revenue impacts were estimated separately. Indeed, as all of the various applicable multipliers are so close to each other, and since this analysis seeks only an approximate order-of-magnitude estimate of the economic impacts, it was felt that the multipliers used are appropriate, even for businesses that do not precisely fit the categories identified.

When the multipliers are applied to the estimates of TODS-induced sales revenues shown in Table 2, the total

TABLE 3 OUTPUT MULTIPLIERS. WASHINGTON AND OREGON

| Business Type | Washington | Oregon |
|-------------------|------------|--------|
| | لىن | |
| Winery/brewery | 2.2151 | 2.1441 |
| Retail | 1.9452 | 1.8694 |
| Personal services | 1.8812 | 1.8159 |
| Eating, drinking | 2.2071 | 2.0942 |
| Hotel, lodging | 1.9694 | 1.8780 |

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Regional Multipliers*, May 1986.

economic benefits of the TODS programs in Washington and Oregon are \$15,869,000 for Washington and \$37,418,000 for Oregon (in 1990 dollars).

Benefits vs. Costs Statewide. Both Oregon and Washington have designed their TODS fee schedules for the programs to be at least self-supporting. However, a key difference is that Washington subsidizes 70% of its TODS program's costs with federal money, while Oregon uses only user fees to cover its program's costs. As a result, Washington's TODS fees are significantly lower than Oregon's. Washington charges an initial permit application fee of \$75 plus \$145 per sign (in the first year only) and then an annual maintenance fee of \$40 per sign. Oregon charges only an annual fee of \$195/year for each advance sign and \$75/year for each intersection sign.

Although Oregon's TODS program administrator indicated a similar difficulty in isolating the TODS costs from c her program costs, Oregon performed an analysis of its TODS program costs, and its program administrator was able to provide the estimates shown in Table 4. As for the TODS impact on subscriber sales and the overall impact on the state economy, it appears that the Oregon TODS program is extremely beneficial. Benefit/cost ratios were calculated by comparing total annual statewide economic benefits resulting from the TODS impact to the program's cost. Cur-

| Business Categories | Average TODS Induced Percent Change in Sales | Average Annual Sales Volume (000) | Number of Businesses Enrolled | Direct Annual Benefits (000) |
|----------------------------------|--|---|-------------------------------------|------------------------------------|
| Oregon | | | | |
| Gifts, crafts, etc. ^a | 35.0% | \$ 251 | 25 | \$ 2,196 |
| Amusement, recreation | 25.0 | 398 | 32 | 3,184 |
| Museums, galleries | 42.5 | 42 ^b | 15 | 268 |
| Wineries, breweries | 25.4 | 1,182 | 42 | 12,610 |
| State total | | | 114 | \$18,258 |
| Washington | #* | | | |
| Gifts, crafts, etc. | 22.5% | \$ 242 | 25 | \$ 1,361 |
| Amusement, recreation | 27.5 | 343 | 4 | 377 |
| Museums, galleries | 42.5 ^c | 42 | 2 | 36 |
| Wineries, breweries | 13.0 | 1,879 | 23 | 5,618 |
| State total | | , | 54 | \$ 7,392 |

| TABLE 2 |
|--|
| DIRECT ANNUAL BENEFITS OF THE TODS PROGRAMS IN WASHINGTON AND OREGON |

^aA tree farm and two orchards did not fit precisely into any of the four categories. However, their sales volumes are likely to be closer to those for gifts, crafts, etc. than the other business categories, and they were included in that category.

^b The census reports for Oregon did not include the figures for museums and galleries. Therefore, the average sales for this category in Washington was used.

^cNo museums were included in the sample surveyed in Washington. Therefore, the percent change in sales estimated for museums and galleries in Oregon was used.

rently, Oregon's TODS program has a benefit/cost ratio of nearly 2,500:1.

| TABLE 4 | | | |
|---------------|---------|-----------|-------|
| OREGON'S TODS | PROGRAM | OPERATING | COSTS |

| Cost Categories | First Year | Subsequent Years |
|--|------------|--------------------------|
| Administration ^a | \$107 | \$14 annually |
| Engineering | \$ 84/sign | \$ 0 annually |
| Sign manufacture ^b Installation ^b | \$112/sign | \$112/sign every 7th yea |
| Installation ^b | \$ 63/sign | \$ 63/sign every 7th yea |

^aAdministration costs are the same per subscriber, regardless of the number of signs. All other costs are per sign.

^bSigns are replaced every seven years.

Source: Cheryl Gribskov, Executive Director Oregon's Travel Information Council.

Assuming that the fees generated by the Washington TODS program cover the state's 30% share of the total implementation costs (the federal government financing the other 70%), its total annual program cost is estimated to be \$14,400. Using the total program benefits estimated above (\$15,869,000), the Washington TODS program's benefit/cost ratio is estimated to be over 1,000:1 (54 enrolled businesses, with an average of two signs each, paying \$40/ year/sign).

Benefits vs. Costs — Individual Businesses. While the average sales attributable to TODS is a reasonable representation of the TODS impact for all participating businesses in each category, there was naturally a range of sales impacts for individual businesses. For example, the TODS impacts on sales for wineries ranged from 8% to 30% of total sales for the wineries sampled in Washington and from 5% to 88% of total sales for wineries sampled in Oregon.

To estimate the net before-tax income for wineries, estimates were applied for wineries' annual operating costs according to size of winery. According to Folwell and Castaldi (1987), net incomes for wineries range from an average of 45% of sales (for wineries producing 10,000 gallons of wine per year) to an average of 66% (for wineries producing 900,000 gallons of wine per year). Therefore, the average net before-tax income generated by TODS signs alone, for the wineries sampled, was approximately \$145,000 in Oregon and \$117,000 in Washington.

On average, wineries spent \$716/year to subscribe to the TODS programs in Oregon and \$397/year in Washington. Therefore, the wineries' increase in net before-tax income was more than 200 times the average annual TODS fees in Oregon and more than 290 times the average fees in Washington (adding the annual fee to the one-time enrollment fee amortized over a 10-year period). Even the winery having the lowest estimated TODS impact on sales of all the wineries' sampled had a net before-tax increase in income attributable to TODS of about \$5,400, compared with its TODS one-time subscription fee of \$220 and an annual fee of \$40. The return is clearly well worth the investment.

The TODS impact on the income of other businesses showed a similar pattern; it was much higher than the enrollment fees for nearly all other businesses. Exceptions were the few museums which charged very low admission fees, and boat charter companies, whose patrons made advanced reservations and used the TODS signs mainly to locate the business and ensure that they arrived on time for the charter.

Even estimating net before-tax income at a conservative 20% of sales for the nonwinery businesses, the TODS benefit/cost ratios for nonwinery businesses in both states (in terms of estimated before-tax income/TODS fees, assuming a 10-year amortization of the initial subscription fee in Washington) were mostly over 130:1. In Washington, about as many businesses had benefit/cost ratios of over 300:1 as under 100:1.

Administration

The various states which have implemented TODS programs have used administrative structures which suit their particular needs and legal/institutional constraints. Generally, the TODS program is administered by a state's department of transportation. However, the particular choice of administrative structure has also depended upon (1) how easily the program could be incorporated into the transportation department's existing organizational structure, (2) the budgetary constraints of the department, and (3) the department's legal authority and perceived objectives. For a number of the states which were the first to implement a TODS program, the choice of organizational approach was also driven by political and economic conditions at the time of program development.

Even though TODS signs are useful as directional aids to motorists, and might even be perceived as providing motorists with a necessary transportation service, some state departments of transportation did not view TODS as being entirely within their administrative responsibility. TODS was viewed by these departments more as a promoter of commercial activity and economic well being. Where the department of transportation was less interested in assuming complete responsibility, and where the state departments of commerce, tourism, and/or economic development agreed that responsibility was also partially theirs, TODS responsibility was shared by a combination of departments through an interagency authority. Although these authorities have slightly different names, they are generally similar, and are referred to here, as in Oregon, as a Travel Information Council (TIC).

A third arrangement, expected to be implemented in two states, is privatization of the TODS program. Under this approach, a private contractor would be granted responsibility for administering the program.

Implementation

States that wish to initiate a TODS program will need to consider not only the administrative and organizational structure but a variety of other programming issues. These include

- Size of signs;
- Number of signs permitted at an intersection;
- Use of advance signing and maximum/minimum distance of advance signs from intersection;
- Sign wording;
- Definition of eligible businesses;
- Process for approving applications;

- Inclusion/exclusion of gas, food, lodging and camping businesses;
- · Required business days/hours of operation;
- Maximum/minimum distances allowed to businesses, and use of trailblazing signs (directing motorists long distances or difficult routes);

- · Fee structure;
- Initial application fee;
- Intersection sign;
- Advance sign;
- Annual maintenance charge.

To develop program guidelines to meet their objectives, work within their constraints, insure the continuity of the program and the responsiveness of the business community that the program hopes to target, states should investigate the following for their applicability:

- Seasonal closures and provisions for removing or covering the sign. This is an important set of rules to some businesses, such as agricultural direct marketing operations and businesses that have only seasonal appeal, such as holiday-oriented shops or seasonal resort activities.
- (2) Variable fee schedule. Different fees might be charged, depending upon subscribers' relative size, considering possibly sales level and/or nonprofit status.
- (3) Distance to other off-premises signs. Some states restrict businesses from obtaining a TODS sign, if they also have an off-premises sign (billboard) within a certain distance from the location of the desired TODS sign.
- (4) Experimental programs. Innovation is possible, and provisions should be made for accommodating and evaluating such innovation. One example is privatization of the program.
- (5) Provision for accommodating additional business subscribers after the maximum of number of TODS signs have been authorized for an intersection. The *Manual on*

Uniform Traffic Control Devices suggests providing information center kiosks or a similar facility.

- (6) System for considering new sign applications. Possible selection rules are first-come first-served, giving precedence to businesses closest to the road where the TODS sign would be placed, or using a lottery approach, disregarding all other criteria, and using random chance for selection.
- (7) Linking the TODS program to other state or local tourism development efforts. Such other efforts might include various publications issued by state tourism or economic development agencies (such as maps and brochures), traveler information centers/kiosks, on- and off-site sign programs, farm trail and u-pick-em farm programs, and winery routes.
- (8) Coordination with local jurisdictions. Local communities may want the opportunity to review and approve signs.
- (9) Definition of qualifying regions. Generally the TODS program is intended for rural areas, and a working definition of what constitutes rural and urban areas may differ from state to state.

REFERENCES

- Dean Runyan Associates (1989). "Oregon Travel and Tourism, Visitor Profile, Marketing and Economic Impacts," January, and "Travel Signing in Oregon," December.
- Folwell, Raymond J., and Mark A. Castaldi (1987). "Economics of Size in Wineries and Impacts of Pricing and Product Mix Decisions." In Agribusiness, vol. 3. New York: John Wiley & Sons, pp. 281-92.