

Ridership Enhancement Quick Study

Prepared for:

**Federal Transit Administration
Office of Budget and Policy
and
Office of Research, Demonstration, and Innovation
U.S. Department of Transportation**

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September 29, 2005

Report Number: FTA-CA-26-7070-05.01

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Executive Summary

Many agencies, in efforts to increase transit ridership have adopted and implemented various innovations that collectively may be termed “ridership enhancement techniques.” The techniques of present interest include:

- Employer passes, universal passes, and “ECO” passes
- Guaranteed ride home programs
- Day passes
- On-line fare media sales programs.

Past research (Taylor and Haas, et al, 2002; Brown, Hess, and Shoup, 2003; White, Levine, and Zellner, 2002) suggests that such programs may indeed be a part of an effective ridership increase campaign. However, not every transit agency has adopted each of these techniques. This report identifies factors and characteristics that may lead individual agencies to adopt, or not adopt, each technique, and makes recommendations regarding agencies that may most readily move toward their use.

Literature Review

A review of existing research reveals that virtually nothing has been written about the factors associated with U.S. transit agency adoption of the four specific techniques of interest. Much of the research in this area has concerned the cost-effectiveness of such programs rather than why such techniques are adopted. However, the literature regarding both the adoption of smart card technology, and the adoption of technological innovation in organizations more generally is somewhat more robust. Each strand of this literature suggests that both organizational and managerial factors are important. Organizations should be more likely to adopt innovations if they display an ability to 1) overcome high initial costs, 2) form partnerships with other stakeholders, 3) identify target markets and segments, 4) take or overcome risk, and 5) integrate technology with finance, planning and operation. Unfortunately, few of these characteristics easily lend themselves to quantification, or even verification that they exist among specific agencies.

Methodology

This report provides an analysis of the factors that may affect whether transit agencies may adopt each of the four types of ridership enhancement techniques, utilizing data associated with the 150 largest transit agencies in the United States.

Researchers first attempted to determine whether each agency possessed each of the four techniques by conducting an initial search of transit agency web sites, followed by a round of very brief phone interviews with managers in every agency to verify the information obtained in the internet searches.

In an attempt to identify factors associated with adoption, both quantitative and qualitative data were collected. Quantitative data regarding agency (agency size, budget, farebox recovery rate, etc.) and environmental & socio-economic (income, population density, etc.) factors were obtained from public sources including the American Public Transportation Association and the U.S. Census. Qualitative data was obtained from a second round of in-depth, structured phone interviews with a purposive sample of more than 24 transit agency managers in order to obtain a richer understanding of the kinds of considerations that impinge upon an agency's decision to use each enhancement technique.

Findings

Generally, the results obtained from the quantitative analysis were suggestive but not definitive in terms of identifying critical factors for implementation of each technique. Interview results were helpful, but difficult to translate into generalizations across all agencies. However, the following patterns were identified:

- Employer/Eco-Pass – Interviews with managers seemed to suggest that low density (especially in the downtown core) and lack of urban congestion make this program unattractive to some agencies. Smaller agencies and agencies with zone fare systems appeared less likely to adopt employer passes. Quantitative data confirmed that agency size is positively correlated with adoption of employer passes. In addition, tourism-related expenditures, and population of area served were positively correlated with this technique, while rate of home ownership was negatively correlated.
- Day Passes – Interviews suggest that smaller systems are less likely to offer day passes because of low perceived demand, and that multi-modal systems may be more likely to offer day passes than single mode systems. Both the interviews and the quantitative data suggest that transit agencies that serve popular tourist destinations are more likely to offer day passes.
- Guaranteed Ride Home (GRH) Program – Interviews suggest that transit agencies that run longer hours tend not to offer GRH because it would be superfluous. By contrast agencies with few hours and shorter routes tend not to offer GRH because of cost concerns. However, many agencies that do offer GRH report minimal costs. Quantitative analysis suggests that agencies that offer eco-passes are much more likely to offer GRH, which may be seen as complementary, as well. Fare box recovery rates, population density, and mean commute times are each negatively correlated with GRH.
- On-Line Media Sales – Most managers who were interviewed cited perceived costs as the main impediment to on-line sales. Larger agencies appear to be more likely to offer on-line media sales, as size of agency service area, total vehicle miles, service frequency, total vehicle hours and total expenditures were all positive correlated with on-line media sales. Mean commute time was also found to be positively associated with these sales.

Recommendations

Based upon the preceding list of factors, as well as interviews with staff from many potential candidates, the following agencies are identified as likely candidates for successful adoption of the corresponding ridership enhancement technique:

Employer/Eco-Pass

- Regional Transportation Commission of Southern Nevada
- Fresno Area Express
- City of Detroit Department of Transportation
- Broward County Mass Transit Division
- Transit Authority of Omaha

Day Passes

- Miami-Dade Transit
- City and County of Honolulu Dept. of Transportation Services
- Port Authority of Allegheny County
- Fresno Area Express
- Jacksonville Transportation Authority

Guaranteed Ride Home

- Greater Dayton Regional Transit Authority
- Long Beach Public Transportation Company
- Jacksonville Transportation Authority
- Port Authority of Allegheny County
- Santa Monica Municipal Bus Lines

On-Line Sales

- Santa Clara County Valley Transit Authority
- City of Phoenix Public Transit Dept.
- Central Ohio Transit Authority
- VIA Metropolitan Transit (San Antonio)
- Greater Richmond Transit Company

Introduction and Scope

Increasing transit ridership is an ongoing concern for local transit agencies as well as national transportation policy makers. Many agencies, in efforts to increase transit ridership have adopted and implemented various innovations that collectively may be termed “ridership enhancement techniques.” The techniques of present interest include:

- Employer passes, universal passes, and “ECO” passes
- Guaranteed ride home programs
- Day passes
- On-line fare media sales programs.

Past research (Taylor and Haas, et al, 2002; Brown, Hess, and Shoup, 2003; White, Levine, and Zellner, 2002) suggests that employer and other universal pass programs may indeed be a part of an effective ridership increase campaign. However, not every transit agency has adopted each of these techniques. Among the potential reasons for an agency’s failure to adopt a given technique may be a lack of technological capacity, insufficient financial or human resources, or a transit service environment that precludes the effective use of that technique. Generally, however, little is known about the extent to which individual transit agencies employ these enhancements, what makes it possible for them to do so, or the reasons for their failure to do so.

This report contains findings from research intended to identify the factors and characteristics that may lead individual agencies to adopt such techniques, as well as factors and characteristics that may tend to deter them from doing so. The purpose of this analysis is to determine which factors are associated with the adoption of innovative ridership enhancement techniques in order to identify agencies that may most readily move toward their use.

Overview of Research Approach

In order to learn why transit agencies have or have not adopted ridership enhancement measures, a review of past literature concerning how such agencies disseminate innovations was completed. Identifying past research concerning how and why transit agencies adopt innovations such as ridership enhancement techniques may help inform subsequent efforts to explain why they do or do not adopt specific techniques.

The basic research strategy used in this report was to assemble a database of the largest 150 transit agencies, including contact information, using data sources available from the American Public Transportation Association (APTA), the U.S. Census, and other transportation data resources. From the initial list of 150 agencies, approximately 20 agencies were removed because they were not appropriate for the purposes of this study. Among the reasons that agencies were removed were: 1) lack of direct provision of transit services, 2) paratransit service, and 3) providers of limited route service (e.g., “people movers”).

In order to determine which agencies are using the specified ridership enhancement techniques, transit agency web sites were searched on a preliminary basis. This provided an initial, easily obtained list of agencies that advertise the use of each technique. However, web pages clearly did not necessarily provide exhaustive or accurate information about the use of these techniques, and thus were complemented with an extensive series of telephone interviews with key contacts at each agency to ensure an accurate list of which agencies have adopted each enhancement technique. Occasionally, multiple interviews were conducted to ensure that the information collected was accurate.

Additionally relevant information about each agency (size, transit modes, form of governance, and other characteristics) was assembled and merged with the data described above, creating a comprehensive database of agencies, agency and service area characteristics, and use of enhancement techniques. These data were analyzed to determine which quantifiable factors were linked statistically to use of the various techniques.

Additionally, the team conducted structured interviews with a purposive sample of transit agency managers in order to obtain a richer, more qualitative understanding of the kinds of considerations that impinge upon an agency's decision to use each enhancement technique. The sample consisted of two groups of agencies of twelve each: one that has and one that has not adopted most or all of the techniques. These groups, although they did not constitute a scientifically representative sample, were drawn from disparate regions and types of transit service areas. The interviews were used to provide additional insight into the logic of adopting ridership enhancements, which also proved somewhat useful in refining the more quantitative analysis described earlier. Other interviews, such as those springing from the telephone survey of transit operators, were completed to supplement the available data and to refine the resulting recommendations.

Together, these data sources and analyses were used to identify the following kinds of information:

- 1) the number of agencies which have (and have not) adopted each enhancement technique (including those that have been abandoned);
- 2) the characteristics and other factors that are necessary to – or associated with – implementation of each technique;
- 3) the agencies that have not employed each technique with the greatest chance for successful implementation of that technique.

Literature Review

This literature review addresses transit agency characteristics and other factors that are potentially associated with agencies' ability to successfully implement ridership enhancement techniques. Consistent with the goals of this study, the focus is upon studies related to adoption of the following programs:

- Employer passes, universal passes, and Eco-passes,
- Guaranteed ride home programs,
- Sales of day passes, and
- On-line fare media sales programs.

These four programs can be conceptually grouped into two types of approaches:

1. Fare-related programs

These programs relate specifically to fares, fare media, and transit pricing; and provide a means for more effective fare policies. They provide transit agencies with tools for revenue enhancement and cost reduction (through the option for fare policies that capture the costs of service provision). These programs include:

- Employer passes, universal passes, and Eco-passes
- Day passes
- On-line fare media sales programs

2. Operational enhancements that provide improved service to participants.

These programs provide operational enhancements that improve the customer experience on transit. This approach includes:

- Guaranteed ride home programs

Of course, the two approaches are not mutually exclusive. Passes and fare media sales programs can arguably improve transit operations and customer convenience, and guaranteed ride home programs may have cost-savings objectives. This literature review provides an overview of the research on (1) institutional and organizational factors related to the adoption of technology in organizations in general, (2) the four types of ridership enhancement programs of interest to the FTA, and (3) the implementation of smart card media for multi-agency systems and programs.

Unfortunately, a major finding of this review is that relatively little has been written specifically about the factors associated with U.S. transit agency adoption of the four specific techniques of interest. Therefore, this review first discusses available existing research on the subject of innovation among public agencies with an eye towards developing an understanding of the general circumstances under which innovation will (and will not) occur.

Adoption of Technology Innovation in Organizations

When approaching technology adoption in organizations, most of the literature and analysis is organized in the following manner: analysis focuses either on (1) characteristics of the technology, (2) characteristics of the organization, or (3) how the characteristics of the technology interact with the characteristics of the organization. A comprehensive understanding of technology adoption in organizations requires a full review of all three factors, and especially the interaction between the characteristics of the technology and those of the adopting organization. This literature review, however, is intended to provide a preliminary sketch of potential organizational factors correlated with feasible implementation, and therefore provides only a cursory explanation of work done on characteristics of *technology*, while focusing instead on characteristics of *organizations*.

Rogers and Shoemaker (1971) were the first to provide a comprehensive classification of characteristics and attributes that affect the adoptability of technology:

1. Compatibility refers to whether the technology is viewed as consistent with contemporary social values, norms, past experiences, and needs of society; or whether the technology fits with or matches existing organizational practices.
2. Complexity describes the effort needed to understand, apply, and use the technology.
3. Trialability is the extent to which the technology can be tested, or the ability of the technology to be implemented on a limited, trial basis.
4. Observability refers to the degree to which results of the technology are observable, measurable, and visible.

Other research has focused on the characteristics of organizations that may be correlated to the adoption of technological innovations. Lynott, Guthrie, and McGoff (1997) researched the effects of organizational structure and economic indicators, governance factors, management structure, and organizational environment on propensity to adopt technology.

1. Organizational structure and economic indicators refer to an organization's size, sector, research and development spending, and degree of multi-unit divisions.
2. Governance arrangements include leadership background and length of tenure.
3. Management structure includes manager-to-worker ratio, and the technical expertise of management personnel.
4. Organization's environment includes geographic location and the legal environment of the organization.

Taken as a whole, the literature on innovation adoption and diffusion has focused on the process of innovation and adoption in the private sector, focusing on firm characteristics and management practices. Its goals have been the prediction of business success or of management and organizational reform for increased productivity.

In the public sector, information, telecommunications, and electronics technologies have offered many agencies tools for improving service quality and reducing costs. In the U.S., decision makers in public agencies have frequently relied on technological fixes to achieve policy goals

(Howitt and Altshuler, 1999; Flamm 2001), rather than risking strong public and political opposition to policy mandates. For example, air quality in the U.S. has significantly improved as a result of reliance on technological improvements, rather than on policies that restrict or impose costs on the driving public (Flamm 2001). Despite the increasing reliance on technology, few comprehensive studies have examined organizational characteristics of transit agencies in adopting technology innovations.

Innovation in Transit Agencies: Adoption of New Fare Programs and Operational Enhancements

The existing literature contains virtually nothing about the factors that potentially affect transit agencies' ability to adopt the specific innovative techniques under consideration by the FTA. Most of the literature on employer passes, universal passes, and Eco Passes; day passes; and on-line fare media sales programs has been evaluative in nature, focusing on the effectiveness or the costs of implementing the programs. Descriptive studies also abound, highlighting the practices of existing programs with little data analysis or original research contribution.

Fare programs: transit pass and on-line sales programs

For example, Shoup (2005) evaluated Eco Pass programs – specifically focusing on employer passes – for cost effectiveness, effects on employee transit ridership and parking demand. Such pass programs are found in Dallas, Denver, Salt Lake, and San Jose; and give employees of a firm or organization unlimited transit rides for free. Shoup's focus in this study is on comparing the cost-effectiveness of Eco Pass programs and the cost-effectiveness of providing free parking. Little is said, however, on why some agencies are more or less likely to adopt Eco Passes.

Similarly, Brown, Hess, and Shoup (2001) evaluated Unlimited Access transit pass programs at 35 universities. They asked campus officials why their universities adopted the program, and interviewees reported that unlimited access programs reduce demand for parking, increase students' access to housing, recreation, and academic resources; act as a recruitment and retention tool; reduce the costs of education for students; and increase transportation equity among students. Officials from transit agencies reported that they adopted Unlimited Access programs to (1) increase ridership, (2) guarantee revenue, and (3) improve overall service (Brown et al. 2001).

Because the program requires a partnership between transit agencies and universities, the authors ask why universities and transit agencies have not been quicker to implement such programs. They conclude that more universities *are* indeed adopting unlimited access programs – that since the initial data collection, more than 20 universities and schools in the Chicago area alone have implemented programs in conjunction with transit agencies (Brown et al. 2001). Despite their finding that more universities and agencies *are* implementing Unlimited Access programs, the authors do not address why some transit agencies have been quicker to implement the program than others.

The authors also conclude that transit agencies may not be aware of (or do not understand) the concept of Unlimited Access because of “their lack of entrepreneurial drive” (Smith 1986; Brown et al. 2001), but how agency characteristics, organizational design, or institutional

arrangements may affect the entrepreneurial drive and ability to seek out innovative programs remains unexplained.

The most significant obstacle that the authors identify is the difficulty universities and transit agencies face in overcoming the high initial costs of implementation when there is little guarantee of program success. Successful implementation often depends on the inclusion and involvement of multiple stakeholder groups such as students, special interest groups, university administrators, university and transit legal staff, and transit officials (Brown et al. 2001), and may present many unknown factors and high opportunity costs if programs cannot be crafted given the diverse set of stakeholders.

Very few studies have specifically focused on the introduction of day passes as a significant ridership enhancement tool. When day passes have been examined, their treatment has been in the context of general fare structure overhauls. For example, Lee (1999) provides a description of fare simplification schemes (including the elimination of transfer fares and the introduction of daily and weekly passes) at Connecticut Transit in Hartford, Connecticut. Similarly, Stern (1997) discusses day passes as an alternative for transit agencies eliminating transfer fares. In both studies, day passes were viewed as fare simplification measures either to appeal to an agency's increasing market of suburb-to-suburb travelers or as a result of new ticket reading and issuing machines as in Hartford (Lee 1999), or as an operational fix to problems associated with transfer fares (Stern 1997). Neither study, however, evaluates the effect of day passes on ridership changes, nor directly discusses organizational factors that may have contributed to the adoption of a day pass or fare structure changes.

Of all four ridership enhancement techniques of interest to the FTA, on-line fare media sales programs have been least examined in the literature. No studies have attempted to distinguish factors between agencies that have or have not implemented on-line fare purchasing programs. Most discussions of on-line fare purchase programs are found in literature focused on electronic fare media programs (Brumfield 2004); on-line purchasing is often treated as an ancillary application of new fare technologies.

Operational enhancements: Guaranteed Ride Home programs

Most literature on guaranteed ride home (GRH) programs has been focused on case-by-case descriptions of specific programs, trends in use, marketing practices, implementation strategies, and lessons learned. Although GRH programs can be implemented by employers, local governments, transit agencies, rideshare groups, metropolitan planning organizations (MPO), or transportation management associations (TMA) the most relevant existing literature is either designed to guide employers in implementing their own programs or participating in existing programs sponsored by public agencies (United States Environmental Protection Agency 2001).

Since GRH programs are designed to enhance alternative (non-single-occupant-vehicle) travel options, a small portion of the literature has been devoted to evaluating the impact of GRH programs on travel behavior (Nelson/Nygaard Consulting Associates 2004).

Although the US EPA report speaks to an audience of employers, it does provide some suggestion that GRH programs work best in workplaces that are well-served by transit during

commute hours but under served during the day or evening hours. For transit agencies, this implies that transit agencies most likely to adopt GRH programs may be those who have high peak-to-base ratios

The report also suggests that employers first explore GRH services if they are offered through an area TMA before implementing their own service, suggesting that transit agencies may be more likely to adopt and implement GRH services if there is adequate demand for it from employers. Additionally, GRH is suggested for employers with low-income workers or those that employ parents who may have a need for flexible, on-demand travel when childcare-related emergencies arise.

Smart card adoption and implications for other fare programs

As seen, the literature has been heavy on program evaluation and description, and light on explanation of agency factors that potentially influence the successful adoption of pass and media purchase programs. Much more, however, is known about the adoption of “smart card” fare collection systems, and the institutional and organizational barriers to forming smart card programs that are interoperable across multiple agencies. While multiple-use smart cards *per se* are not the immediate focus of this research project, an understanding of the agency and institutional factors involved in coordinating multiple agencies can have implications for understanding why individual agencies might (or might not) seek to adopt other fare enhancement programs like day, Eco-, or employer passes, or on-line fare purchasing programs. Agencies that innovate in one area may be more likely to innovate in another.

Organizational mission and priorities

In California, for example, many different types and sizes of public agencies administer, plan, manage, and/or operate transit systems. Small municipal (city or county) transit agencies mainly serve their own jurisdictions, but function within the auspices of regional transportation authorities that coordinate region-wide transit service; in addition to distributing funding to local transit agencies, some regional authorities also provide and operate their own transit services. Metropolitan planning agencies are involved in long-range regional transportation planning in conjunction with housing, employment, and other planning arenas. State transportation departments may or may not directly provide any transit service, but carry an important role in facilitating statewide planning for transit services.

Thus, each type of agency has different functions and different missions – some exclusive, others overlapping. Even among transit service providers, the diversity of agency missions and priorities partly depend on their respective local, financial, operational, and political conditions. An agency’s propensity to adopt smart card systems may possibly be influenced by organizational structure, interest in improved data collection, and ability to overcome costs. One transit official interviewed about technology adoption observed that, “in an agency, if the technology group is separated from the planning groups, you will get silo thinking,” and therefore weak interest in adopting smart cards and joint decision-making with other agencies over interoperable systems. Another interviewee reported that locally determined procurement protocols such as low-bid regulations prohibit individual agencies from procuring equipment

compatible with other agencies. Members of the APTA Fare Collection Workshop reported that agencies also have varying timelines for equipment replacement, which make it difficult to organize and implement multi-agency programs and systems.

Several published studies found that interest in smart card technology varies by mode: bus-only transit agencies were interested in coordinating a smart card program with their other in-vehicle technologies, while light-rail agencies placed a higher priority on reducing farebox fraud (Maxey and Benjamin; Field and Agnew 1996; Libbrecht and Oy 1999; Foote and Stuart 2000). This implies that modal differences may help explain the pragmatic decisions on whether to adopt the use of various ridership enhancement tools.

These differences between agency priorities, missions, and local conditions highlight challenges faced by all transit agencies in prioritizing the collective goals of a coordinated smart card system.

Agency patronage and markets

Agencies' incentives to adopt smart cards or other pass programs may also vary by their patronage and markets of users. Especially in the case of smart cards, acceptance of the media may differ between income groups as lower income groups may be particularly resistant if they are less likely to have bank accounts used to refill value on cards (Giuliano et al. 2000). The poorest of these groups may also be unable to afford lump-sum pre-payment, and prefer to use cash on a per-ride basis (Foote and Stuart 2000; Multisystems Inc. et al. 2003). Additionally, certain groups such as immigrants may be concerned about privacy and reluctant to provide identification to buy or re-fill a transit card (Giuliano et al. 2000).

Market segmentation – the practice of identifying groups of users with similar characteristics who are likely to exhibit similar responses to service changes (Elmore-Yalch 1998) – may offer opportunities for smart card and other fare pass programs. For example, smart card that partnered with universities to supply students, faculty and staff with transit cards saw sharp increases in adoption and transit ridership (Foote and Stuart 2000; Giuliano et al. 2000). Other programs that realized substantial adoption included those that coupled transit passes with employee identification passes. The largest of these is the federal government and Washington Metropolitan Area Transit Authority (WMATA) in Washington, D.C. (Multisystems Inc. et al. 2003; U.S. DOT ITS Joint Program Office 2004). These findings imply that while public acceptance of smart cards may vary depending on the ridership markets of each agency, the successful adoption of smart cards may depend on agencies' ability to identify these subpopulations and partner with non-transportation agencies to capture these markets.

Agency risk-taking: uncertainty over the future of information technology

Adoption of innovative fare media like smart cards may also be hindered by agencies' uncertainty over the future of technological advances. In the case of smart card fare collection systems, for example, a number of government agencies at different levels have been active in developing standards to reduce agencies' risks in adopting a particular technology (Dahlgren and Lee 1994; Zandbergen 1994; U.S. Department of Transportation 2005). With agreed-upon standards, all agencies can adopt smart cards without the risk of investing in soon-to-be-obsolete

technology or incompatible systems. However, the International Transport Smartcards Organization (ITSO), a public-private partnership based in the United Kingdom, has *also* developed a set of standards for interoperable contactless smart card transport ticketing and other services. In the United States, the American Public Transportation Association (APTA) has been in the process of developing guidelines and standards for its member agencies with the goal of lowering the costs of entry for both transit agencies as well as for smaller technology vendors.

Meanwhile, in parallel with U.S. transit operator efforts, the private sector continues to gain markets of smart card users for credit card transactions, security and access cards, and other data management applications (Goto et al. 1994; International Railway Journal 1995; Blobel et al. 2001; Carter 2001; Dalbert 2001; Rat 2001; Dalbert 2002; Smart Card Alliance 2003; Ennis 2004; Smart Card Alliance 2005). Major financial institutions that are actively pursuing smart card transit program include VISA/MasterCard, which was instrumental in the Hong Kong program rollout (Chambers 1998); Mondex; Banksys; and Europoay (Libbrecht and Oy 1999).

While smart card technologies are advanced enough to realize the operational needs in the transit industry, the large diversity in standards and applications, coupled with the phenomenal growth of technological capabilities, makes it difficult for transit agencies to agree upon the best technology and to predict the future direction of smart card uses. Uncertainty about the direction of technological advances may affect decision-making processes about technology adoption.

Effectiveness of public-private partnerships

Successful smart card systems have involved partnerships among multiple stakeholders. These partnerships, however, are difficult to create in part because they are public-private partnerships promoting technology that is largely untested in the United States (Fleishman et al. 1998). Deakin (1998) conducted surveys and interviews of public officials who emphasized the importance of private sector involvement (in addition to earmarked funds for ITS applications), but it is not clear *how* important private sector involvement is to overall success of ITS projects, nor is it apparent the appropriate strategies for public and private roles in partnerships.

Indeed some transit agency staff members recognize and acknowledge the contentious nature of public and private interests, as well as the difficulty of reaching agreement among many stakeholder groups. For example, members of the UTFS Committee commented that,

...we're here as transit agencies, vendors are here to make money. If we [transit agencies] want to change the industry, we have to come together... Is anyone here from Cubic? No. Hmm! That's why we're here to decide on a standard, because we're taken up by proprietary vendors (American Public Transportation Association Fare Collection Workshop 2005).

Institutional arrangements and leadership

Another potential factor correlated to implementation of an integrated smart card system is the governing structure that leads individual transit agencies, local governments and transportation agencies to coordinate an interoperable smart card system (Balducci 2003; Multisystems Inc. et al. 2003; Volpe National Transportation Systems Center. 2004). The process of setting and adopting a platform is uncertain; seats of authority over the decision are unclear; and institutional

barriers, including legal constraints, limit agencies' authority and power (Giuliano et al. 2000; Gordon and Trombly 2000; Lovering and Ashmore 2000; General Services Administration 2001).

While individual agencies have clear procedures and rules for decision making, the process of decision-making between multiple agencies has been more difficult, especially when agency priorities differ and when procedures have not been established (Multisystems Inc. et al. 2003; Volpe National Transportation Systems Center. 2004).

Governing structures and seats of power differ from state to state. For example, the California Department of Transportation (Caltrans) holds less centralized decision-making power than other state DOTs, since authority is decentralized among various agencies at various levels in California. California law, in addition to Federal legislation (such as ISTEA and TEA-21), give metropolitan planning organizations (MPOs), county transportation agencies, and Caltrans district offices significant responsibility and authority in selecting and developing projects. This means that a "top down" implementation of programs may be less likely to work when decision-making is highly decentralized (Deakin 2002a; Deakin 2002b).

Research on international cases of smart card adoption have shown that centralized government control over transportation investments, such as in Hong Kong, has been effective in deploying multiple-application smart cards (Wildermuth 1994). However, it is difficult to transfer these institutional arrangements from one place to another due to differences in institutional and legal settings (Deakin 2002a; Deakin 2002b).

Organizational capacity to evaluate costs and benefits

Agencies that have conducted demonstration projects of smart card systems have yet to provide thorough evaluations, either due to lack of institutional capacity, or to avoid political fallout (International Railway Journal 1995; Quisquater 1997; Moore and Giuliano 1998; Giuliano et al. 2000; Lovering and Ashmore 2000; McDonald 2000; Johnson and Thomas 2001; Plouffe et al. 2001; Multisystems Inc. et al. 2003; Smart Card Alliance 2003). No studies have examined the costs of interoperable systems, and how these costs compare with expected and documented benefits. The result is a body of literature that has largely been promotional and descriptive, rather than comparative and evaluative.

In contrast to the good news often reported for revenue savings and other benefits from smart card adoption, some agencies actually lost revenue (Foote and Stuart 2000; Giuliano et al. 2000). Chicago Transit Authority (CTA) installed a smart card system in 1998, which began as an automated fare collection (AFC) system using magnetic stripe tickets, and eventually changed into a smart card-based ChicagoCard. During the first year of implementation, ridership increased especially during off-peak hours but revenue decreased overall and per-trip (Foote and Stuart 2000). The ridership increase was largely due to three factors only tangentially related to automated fare collection. First, new passes were introduced that lowered the price for unlimited monthly passes and included a university pass, called U-PASS. Second, the minimum farecard purchase was reduced by 10 percent to encourage switching from coins and tokens. Third, tokens were eliminated and replaced with farecards. All of these actions were specifically targeted to increase ridership. In addition, fare structures were changed dramatically, where

calendar-based monthly passes were discounted and converted into a “rolling pass” that was good for 30 days and pre-paid farecards were discounted by 10 percent or more. As expected, there was a shift in fare media usage towards farecards, and ridership increased by 4.3 percent. But due to the heavy discounts, fare revenues dropped by 3.1 percent (Foote and Stuart 2000). The drop in revenue was directly related to incentive programs to increase transit ridership, particularly using the new farecards. It is unclear, however, what the long-term effects will be on fare policies in transit.

The most burdensome cost associated with broad adoption of smart card systems is the requisite investment in cards, readers and processing equipment. Many transit operators throughout the country are already moving towards a smart card system of some sort as their traditional fare boxes or legacy systems need replacing (Smart Card Alliance 2003). Agencies may also face additional costs of data collection, payment collection, and purchasing administration computers and processing software for interoperable smart card systems, which alone can be hundreds of thousands of dollars depending on the size of the system and mode (Multisystems Inc. et al. 2003).

Despite the importance of evaluation of costs and benefits resulting from implementation of smart card technologies, information and objective evaluations of smartcard technologies are significantly limited. Policy makers and practitioners have expressed that most literature on intelligent transportation systems is heavily promotional and riddled with jargon, and national ITS experts have indicated a serious concern that there are few rigorous evaluations of demonstration projects in the past, as most are unsupported by reliable evidence or are meaningless without comparison to no-tech options (Public Technology Inc.; Deakin 2002; Deakin 2002b). Additionally, most studies in the past have focused on benefits and costs for transit operators, without an examination of benefits and costs for travelers; and few studies compare the benefits derived from smart card implementation against benefits derived from policy measures (Deakin 2002b).

Implications for the adoption of ridership enhancement techniques

Relatively more interest (and, therefore, literature) exists on smart card applications and adoption than on other innovations, possibly due to the growth of technology, its declining costs, and the industry pursuit of technology fixes for transit needs. To a certain, albeit unknown extent, lessons learned from smart card adoption, however, can provide hints concerning the adoption of other ridership enhancement techniques such as transit passes, on-line purchase programs, and guaranteed ride home programs.

Organizations that have adopted innovative technologies and programs exhibit some behavioral similarities or qualities:

Ability to overcome high initial costs

As evidenced by the literature, high startup costs of programs can be a significant obstacle for many agencies in implementing new programs. Those that are able to overcome the costs of new ridership enhancement programs, however, may be larger agencies that can achieve economies

of scale and scope, and can dedicate staff resources to major programs. Costs can also be overcome with access to higher government sources of funding, or the ability to capture other sources of revenue.

Ability to form partnerships

Agencies able to form partnerships are better able to target their services to specific clientele while sharing risk and resources with other partner organizations. The case of university and employer passes has shown success in smart card applications, and lessons are applicable to guaranteed ride home programs as well, which require partnerships between transit agencies, employees, and employment centers. Transit agencies that are able to partner with other public or private interests may be characterized by broader missions and objectives beyond mobility (such as air quality improvement, social service delivery, congestion mitigation, or jobs access).

Ability to identify and target market segments

Agencies able to identify and target market segments are better able to design programs to meet ridership needs and fulfill market niches. These agencies may be characterized by the presence of marketing research efforts that inform planning and operations functions, or dedicated budgets for marketing and research departments.

Ability to take or overcome risk

The adoption and implementation of any new program requires some degree of risk, especially if the innovation is not widely used in the industry. A lack of precedence often presents financial and political risk. Those agencies able to overcome such risks may have a project champion either within the agency, within the agency leadership, or external to the agency who can increase visibility and public acceptance of the project. Risk can also be overcome if an agency has the organizational capacity to evaluate risks in light of benefits and costs (e.g. the presence of research units, or project evaluation expertise).

Ability to integrate technology with finance, planning, and operations

Agencies whose technical, planning, operations, and finance staff are integrated in decision-making processes may be better able to implement new programs such as fare passes, on-line purchase programs, and guaranteed ride home programs. Innovative programs may more likely be adopted when the agency's departments already share in joint programming, either through process (e.g. feedback loops, veto power) or arrangement (e.g. shared-staff, joint working meetings).

Implications for study of enhancement techniques

These common themes present opportunities for examining organizational characteristics that may underlie the organizational motives, abilities, behaviors, and arrangements that lead to successful adoption of other innovations, including enhancement techniques. Unfortunately, however, the characteristics implied by these themes do not readily lend themselves to

quantification, or even verification that they exist among specific agencies. Transit agencies are generally reliant on outside funding sources and are therefore rarely in a position to make new expenditures. Ironically, agencies that could perhaps benefit most from ridership enhancement are typically the least able to afford them. In any event, evaluating the ability of agencies to afford the cost of innovative programs is beyond the scope of the present study.

Similarly, many agencies may lack the ability to identify and target marketing segments (Elmore-Yalch, 1998), or the ability to overcome risk and integrate technology but determining which agencies those are is quite problematic. In essence, whereas well-managed transit agencies should possess these characteristics, determining which agencies are well managed and which are not is a hugely complicated endeavor that lies beyond the means and scope of the present research.

Perhaps the most useful observation for the purposes of this research gleaned from a review of past research is that larger agencies tend to be the ones that have the best potential for adopting innovative policy initiatives, such as those represented by ridership enhancement techniques.

Summary of Findings

Table 1 lists the overall rate of adoption for each technique among the largest 150 transit agencies in the United States.¹ The figures in the table indicate that use of these techniques is reasonably widespread across the nation. Correlation analysis reveals that, for the most part, use of each technique is not strongly associated with use of other techniques. The most notable exception to this pattern is the relatively strong correlation (+.47) between the existence of eco/employer passes and guaranteed ride home programs. It is not surprising that agencies that have eco/employer pass programs are also much more likely to sponsor guaranteed ride programs because these two techniques can complement one another, according to interviews with transit agency representatives.

Table 1: Use of ridership enhancement techniques among large transit agencies

	No		Yes		Total	
	N	%	N	%	N	%
Eco Pass ²	42	32.8%	86	67.2%	128	100.0%
Day Pass	61	47.7%	67	52.3%	128	100.0%
Ride Home	67	41.5%	63	48.5%	130	100.0%
On-Line Sales	72	56.2%	56	43.8%	128	100.0%

For each technique, a correlation analysis was undertaken using a series of potential factors that might be expected to be associated with use (or non-use)³. The following variables, drawn from interviews with agency officials, the preceding literature review, and from other studies related to explaining variation transit ridership were used in the analysis:

- 1) Whether an agency contracts for provision of transit services
- 2) Type of agency (Independent, part of local government, etc.)
- 3) Whether the agency offers multi-modal service
- 4) Population served by agency (log)
- 5) Size of area served by agency (log)
- 6) Population density of service area
- 7) % Population over the age of 65
- 8) Per capita income in service area
- 9) % Population with income under the poverty line
- 10) Mean work travel (commute) time in service area
- 11) % Service area population that owns home
- 12) Dollar value of all manufacturing shipments in service area (log)
- 13) Dollar value of accommodation and food sales (i.e., tourism related sales) in service area (log)
- 14) Total expenditures by agency (log)

¹ Excluded from this table and from subsequent analyses are agencies that were not comparable for one of several reasons, including demand response paratransit service agencies, small fixed-route agencies, regional agencies that do not offer direct transit services in the form of bus or rail.

² Excludes agencies with “tax subsidy” fare pass sales only.

³ “Log” indicates that the logarithm of a variable was also tested in order to correct for possibly misleading results created by extreme values.

- 15) Labor expenditures by agency (log)
- 16) Farebox recovery as percentage of total expenditures by agency
- 17) Total vehicles miles recorded by agency (log)
- 18) Frequency of service by agency (log)

The results reported below suggest that the factors associated with the use (or non-use) of each technique are difficult to verify with quantitative data. There are few statistically significant associations between variables thought to be potentially related to each technique, and those identified are generally modest in strength. Interviews with transit agency staff suggest that more idiosyncratic factors may sometimes account for the failure of an agency to use a particular technique. Some of the factors mentioned as influential in the interviews with transit agency officials are either (a) not particularly well supported by the accompanying quantitative analysis or (b) difficult to measure quantitatively. However, the interviews do reflect the perceptions of individual transit agency officials, even if they are not always borne out in the subsequent analyses.

For each technique, a narrative description of the results from both agency official interviews and the statistical analysis are followed by a figure that summarizes the most important aspects of both.

Factors associated with adoption of Eco/Employer Passes:

From interviews: Low density and lack of urban congestion make this program unattractive to some agencies (e.g., Chattanooga Area Regional Transportation Authority). Some agencies (e.g., Transit Authority of Omaha) with relatively small route systems that do not reach to suburban employers don't find it practical. (Extremely small rail systems, such as the Detroit People Mover are impractical for such programs.) Smaller bus systems (e.g., Kenosha Transit) as well as larger multimodal systems (e.g., San Diego⁴) that serve areas without large employers don't find it practical. Similarly, the Memphis Area Transit Authority and the Metro Regional Transit Authority (Akron) report that they used to offer this program but dropped it after large employers closed down or left the area. Agencies with small staffs (e.g., Memphis) report that such programs are too administratively burdensome.⁵ Agencies that operate with zone fare systems, such as the (San Francisco Bay Area) BART are generally not inclined to implement discount systems of any kind. Some agencies (e.g., Madison Metro Transit, San Mateo County Transit District) that do offer the program are concerned about the lack of revenue neutrality it may introduce, i.e., the increased ridership is perceived as insufficient to offset the value of the discounts.

Agencies are apparently more likely to offer eco-pass programs if their downtown core has at least two or three major employers with hundreds of employees at one location (e.g. Dallas). Similarly, Omaha has not offered an eco-pass because major employers were spread throughout

⁴ San Diego does offer a pass program to college students, but not to employers.

⁵ However, size of administrative staff is *not* associated with existence of eco/employer pass programs.

the city. Over the past decade, employers have been consolidating their operations downtown, and the agency is now considering implementing an eco-pass program. Other agencies that cited a lack of major employers in the downtown core as a reason for not adopting eco-passes include San Diego and Kenosha. In addition, two agencies (Virginia Railway Express and Fort Worth) mentioned existing employer-provided transit benefits as a justification for not offering eco-passes.

From quantitative analysis:

- Agencies that operate two or more modes of transit are significantly more likely to offer this type of program (see Table 2, below). This may reflect greater administrative capacity as well, although number of administrative staff is not directly correlated with adoption.
- Agencies that contract out for some or all of their transit services are significantly more likely to offer this program than those that offer direct services only (See Table 3).
- Ownership of homes (percentage of service population that owns residence) is negatively correlated (-.25, statistically significant at the .004 level) with use of this program: agencies that serve areas with higher home ownership rates are less likely to adopt eco/employer pass programs. This may be a reflection of the influence of population density – however, direct measures of population density are not associated with use of this program.
- Total dollar sales of accommodations and food in the agency service area is positively correlated (+.22, .01) with adoption.
- Various measure of agency size are positively correlated with adoption, including: log of total vehicle miles (+.31, .001), total vehicle hours of service (+.19, .03), and log of total expenditures (.35, .001) are positively correlated. These results tend to confirm that larger agencies are more likely to use these pass programs, as suggested by the interview results summarized earlier.
- Population of area served (log) is positively correlated (+.22, .03)

(Note: For this and subsequent techniques, variables not listed as exhibiting statistically significant associations – positive or negative – are not listed.)

Table 2: Crosstabulation of Use of Eco Passes by Number of Transit Modes

Use of Eco Pass	Modes Offered	
	One Mode	Two or More Modes
No	40.4%	20.7%
Yes	59.6%	79.3%
N	99	29

Chi sq = 3.79, pr < .05

Table 3: Crosstabulation of use of Eco Passes by contracted services

Use of Eco Pass	Does agency contract for services?	
	No	Yes
No	51.6%	30.9%
Yes	48.4%	69.1%
N	31	97

Chi sq = 4.37, pr < .04

Figure 1: Positive and negative correlates of Eco/Employer Pass programs

Eco/Employer Passes		
	Positive Correlates	Negative Correlates
From Quantitative Analysis	<ul style="list-style-type: none"> • Agency size • Tourism related expenditures • Population of service area • Multi-modal • Contracting out • Total vehicle miles • Total vehicle hours of service • Total expenditures 	<ul style="list-style-type: none"> • Rate of homeownership
From Interviews	<ul style="list-style-type: none"> • At least two or three major employers in a concentrated area 	<ul style="list-style-type: none"> • Low density • Lack of urban congestion • Zone fare system • Agency size • Short routes • Lack of large employers in area • Size of agency staff • Concerned by lack of revenue neutrality • Existing employer-provided transit benefits

Factors associated with adoption of Day Passes

From interviews:

Some smaller systems do not offer daily passes because their managers simply don't perceive a demand for them. In such cities, transit may be viewed primarily as a commuter-oriented service. For example, neither Chattanooga nor Kenosha offers single-day passes because most of their regular riders are commuters who are riding solely to and from work without transfers. Such commuters need nothing more than a round-trip ticket each day and would not benefit from a day pass. In addition, multi-modal systems may be more likely to offer day passes than single-modal systems. For example, Dallas implemented a day pass at the same time that their light-rail system began operating, because administrators felt that demand for day passes would increase at that time. Passengers on multi-modal systems may be more likely to make multiple stops in a day, making single-day passes an attractive option. Several agencies (e.g., Central Oklahoma Transportation & Parking Authority) attributed the lack of a magnetic fare media reader to its decision not to sell day passes⁶. Some cities (e.g. San Diego, Madison) market single-day passes mainly to tourists, although they can be purchased by anyone.

From quantitative analysis:

- Agencies that operate heavy or commuter rail systems generally do *not* offer day passes. As discussed earlier, the higher, zone-based fares of these systems along with their commuter service function makes day passes financially unattractive (see Table 4). (Agencies with heavy rail are therefore excluded from subsequent analyses of day pass use.)
- Adoption of day passes is positively correlated (+.20, .04) with total dollar sales of accommodations and food in the agency service area. This would tend to support the hypothesis that areas with more tourism activity are more likely to issue day passes.

Table 4: Crosstabulation of issuance of Day Passes by rail mode

Use of Day Pass	Commuter and/or Heavy Rail	Bus or Light Rail Only
No	90.0%	46.6%
Yes	10.0%	53.4%
N	10	118

Chi sq = 6.94, pr < .01

⁶ Lack of electronic fare media may also be a factor affecting issuance of multi-day passes, although this finding did not emerge from interviews with transit agency staff.

Figure 2: Positive and negative correlates of Day Pass sales

Day Pass		
	Positive Correlates	Negative Correlates
From Quantitative Analysis	<ul style="list-style-type: none"> Total expenditures of accommodations and food in the service area 	<ul style="list-style-type: none"> Multi-modal systems
From Interviews	<ul style="list-style-type: none"> Multi-modal systems Tourist destination 	<ul style="list-style-type: none"> Smaller systems Outdated farebox technology No perceived demand

Factors associated with adoption of Guaranteed Ride Home programs

From interviews:

In some cases (Memphis, San Diego, San Mateo), other government agencies (such as cities, counties, and regional transportation agencies) offer this service instead of transit agencies.⁷ Some agencies (e.g., Fresno) regard this program more as an adjunct to van pool programs and do not provide the service for transit users. Agencies with both long operating hours and extensive routes (e.g., New York MTA, BART) tend not to offer this service because their regular services make it superfluous. By contrast, some agencies with relatively short service hours do not offer the service for fear that too many people would use it (e.g. Kenosha Transit, Transit Authority of Omaha). Agencies with shorter routes (e.g., Omaha, Kenosha Transit) do not serve suburban areas that would presumably find this service most useful.

Some smaller agencies (e.g., Long Beach Public Transportation Company) believe that the program would be too costly to implement. Note, however, that other small agencies (e.g., Metropolitan Transit Authority of Harris County) do offer the program and find it inexpensive to offer. Several agencies (e.g., Capitol Metropolitan Transportation; Dallas Area Transit) report that few people actually use the service, resulting in low program cost.

From quantitative analysis:

- As noted earlier, agencies that operate eco/employee pass programs are much more likely also to offer guaranteed ride home programs.
- Agencies that operate heavy or commuter rail systems generally do *not* offer guaranteed ride home programs. The longer distances associated with their service, and the fact that some run extended hours make such services impractical or unnecessary (see Table 5).

⁷ When such an arrangement could be verified for a transit agency, it was treated as an agency that offered the service. However, there may be other agencies that operate in jurisdictions that offer guaranteed rides home that were not identified via telephone interviews and website searches.

Table 5: Crosstabulation of guaranteed ride home by rail mode

Ride Home Program	Commuter and/or Heavy Rail	Bus or Light Rail Only
No	80.0%	50.0%
Yes	20.0%	50.0%
N	10	118

Chi sq = 3.33, pr < .068

- Farebox recovery rates are negatively correlated (-.23, .01) with adoption of guaranteed ride home programs. Apparently, agencies with higher paying demand for services are less likely to move toward increasing ridership with such programs.
- Population density is also negatively correlated (-.19, .04) with use of these programs, which may reflect the fact that more sparsely populated areas are more difficult to serve with evening transit service, making guaranteed rides a more attractive alternative.
- Mean commute time (in minutes) to work in the transit agency service area is negatively correlated with implementation of guaranteed ride home programs (-.22, .01).

Figure 3: Positive and negative correlates of GRH programs

Guaranteed Ride Home		
	Positive Correlates	Negative Correlates
From Quantitative Analysis	<ul style="list-style-type: none"> • Eco passes offered 	<ul style="list-style-type: none"> • Farebox recovery rates • Population density • Mean commute times • Multi-modal system
From Interviews	<ul style="list-style-type: none"> • Perceived Low cost 	<ul style="list-style-type: none"> • Long operating hours • Few hours of operation • Short routes • Cost concerns • Other government agencies provide this service • Perceived expense

Factors associated with adaptation of On-line Fare Media sales

From interviews:

Perceived cost appears to be a major factor in determining whether or not an agency offers on-line fare media sales. Very few agencies have conducted a specific cost-benefit analysis of on-line sales, but most cited costs as a reason for adoption or non-adoption. Some agencies perceived that on-line sales could be offered for very low cost. Dallas, for example, uses Yahoo Stores as the portal for their on-line sales, and it reports negligible administrative costs for this service as a result. Other agencies (e.g. Memphis) concluded that the costs of on-line sales would be substantial. One cost of on-line sales is technology. Agencies with “smart card” or magnetic-strip fare media appear to be more likely to offer on-line sales than agencies that rely on paper tickets and transfers. Some agencies (e.g. Fresno, San Mateo) report they simply lack the technological capacity (such as a secure server) to sell tickets on-line. Other agencies (Hillsborough Area Regional Transit Authority, Long Beach, Memphis) report that credit card surcharges prevent them from adopting this technique. In some cases (e.g., Tulsa), city ordinances prevent agencies from accepting credit cards at all. Several agencies indicated that they were actively looking into implementing on-line fare sales, but did not have firm dates for this decision (including Chattanooga, which reported a \$4.3 million grant and matching funds for related purposes).

Agencies that *do* sell fare media on-line generally report that they are satisfied with the results they have obtained. For example, Dallas Area Rapid Transit sold 200,000 fares or passes on-line last year. However, most agencies stated that customer convenience was the main benefit of on-line sales, and therefore presumably a primary consideration in the decision.

From quantitative analysis:

- Size of agency service area is correlated positively with on-line sales (+.29, .001) as is population of service area (.26, .002)
- Other indicators of systems size, log of transit system total vehicle miles (+.29, .002), service frequency (.34, .001), log of total expenditures (+.36, .001), and total vehicle hours (+.20, .03) are also positively correlated with adoption of this technique. Consistent with the results obtained with interviews, larger agencies are more likely to implement on-line sales and vice versa.
- Mean commute time (in minutes) to work in the transit agency service area is positively correlated with on-line sales of fare media (+.20, .02). This finding would seem consistent with the other indications that size of agency being associated with on-line sales.

Figure 4: Positive and negative correlates of On-Line Sales

On-Line Sales		
	Positive Correlates	Negative Correlates
From Quantitative Analysis	<ul style="list-style-type: none"> • Size of agency service area • Total vehicle miles • Service frequency • Total vehicle hours • Total expenditures • Mean commute time 	
From Interviews	<ul style="list-style-type: none"> • Long operating hours 	<ul style="list-style-type: none"> • Perceived expense • Perceived lack of technological capacity • Credit card surcharges

Recommendations

At the request of the FTA, section contains recommendations based upon the preceding research that, by means of interviews with transit agency staff and a statistical analysis of large transit agencies, helped to identify factors associated with adoption of each enhancement technique.

The statistical analysis was used in the following manner: for factors or characteristics that were positively correlated with adoption of a given technique, agencies that ranked relatively highly on that factor yet have not yet adopted were favored. For items that were negatively correlated, agencies that ranked relatively low on that factor were favored. In other words, agencies which statistically were a good fit for adoption but which nevertheless have not adopted a technique were favored. However, it should be noted that this approach tends to identify relatively few eligible agencies as many agencies that fit the profile for a given technique by definition already use it.

In several cases a recommended agency possesses only one of the factors that was associated with implementation of a given technique. That is to be expected because many of the agencies that possess these factors already use the technique. Essentially, the approach was to look for exceptions to the rules that were identified and very few appropriate agencies were dramatically outside of the norm. Similarly, many agencies that don't use each technique possess none of the characteristics. Additionally, as only three quantitative factors were identified for GRH and on-line sales (mostly linked to agency size), it was inevitable that some of the recommendations might possess only one of these factors.

As a rule, potential or perceived cost of implementing techniques was not used as a criterion in recommendations. Few, if any, of the agencies we studied have the luxury of discretionary spending on new programs and most if not all rely on operating subsidies of some kind. Cost may pose an impediment to all agencies, but one that is impossible to evaluate with these data.

For example, the interviews with transit staff suggest that the perceived cost of some techniques tend to be exaggerated, particularly with respect to on-line sales and GRH programs – which some agencies report were implemented at negligible cost. During interviews, officials from several agencies reported that GRH was an extremely low-cost program, as it was rarely used. Although some agencies believe that on-line sales entail expensive capital outlays, others have implemented it at very low cost using third-party providers. With respect to day pass sales, the extent to which this should necessarily entail a large net cost to transit agencies is unknown. Certainly many agencies would like to upgrade their fare systems to electronic media, but day passes can be and are sold without them on some systems. In that regard, virtually none of the agencies we spoke with have conducted formal cost-benefit or other systematic analyses of adopting these programs.

Finally, the recommendations are based upon the assumption that, all other things being equal, larger agencies are better candidates for possible implementation of enhancement techniques because they have the potential to attract more riders.

Eco/Employer Passes

- Regional Transportation Commission of Southern Nevada – Southern Nevada seems like a prime candidate for employer passes. The system has high overall expenditures and vehicle miles, both factors that are associated with the successful adoption of pass programs. In addition, Las Vegas is a city in which many large employers (casinos) are geographically concentrated in two main areas (the “Strip” and downtown) along existing transit corridors. These casinos hire many lower-income workers who might take advantage of an eco pass if offered. System administrators were very enthusiastic about this idea in interviews.
- Fresno Area Express – Agency staff indicate that the agency itself is interested in working something out with local colleges and universities, such as Fresno State University, but schools have yet to act upon the possibility. Other indicators suggest a good fit for this program. A relatively large and busy system, Fresno ranks highly in high total vehicle miles, which is positively correlated with an eco pass program. The city has a relatively high rate of tourism-related spending, which is positively correlated with eco program adoption.
- City of Detroit Department of Transportation – A system with large total expenditures and very high total vehicle miles, Detroit would seem to have many potential employers to participate in a pass program. Interviews with agency indicate that such a program is already “under consideration.”
- Broward County Mass Transit Division – This agency has actually recently concluded a pilot program that is similar to an employer pass program. Titled “Work to Ride”, the program offered free transit passes to individuals who were newly employed. The program was considered a success, however it taxed the agency’s staff and although an employer pass program has been considered, none has been implemented. Broward is a large agency with respect to total expenditures, although not very big in terms of total vehicle miles.
- Transit Authority of Omaha – Interviews indicate that large employers were once geographically spread throughout the region, but have become more concentrated in the

downtown area over the past few years. Omaha lacks any of the other enhancement programs and would seem to be a good candidate for innovation.

Possible alternate:

- San Mateo County Transit District – San Mateo also administers the Bay Area “Caltrain” commuter rail system, which already has an employer pass program. According to interviews with staff, that program is considered expensive, which has prevented the agency from adopting it for their own system. However, with many high tech employers in its own area of service and a single mode bus system that has an entirely different fare structure, San Mateo might be a good place for such a program. Because this agency runs the rail-linked pass program, it has experience with this technique and the cost for running a county-level program could be less, perhaps considerably less

Day Passes

Some agencies blame antiquated fare box technologies for their failure to adopt the sale of day passes. Day pass sales are not correlated with agency size, but we have focused on larger agencies because they provide the potential for greater impact in ridership increases.

- Miami-Dade Transit – Miami-Dade is a multi-modal system in a large metropolitan area, both factors associated with adoption of a day-pass. Commuters also contend with high vehicle miles traveled, and the area is a major tourist destination. System administrators expressed a desire to implement a day-pass program, but cited high cost of replacing antiquated fare media as the major obstacle. However, as noted earlier, the cost of implementing a day pass program is not necessarily prohibitive and ought to be studied formally.
- City and County of Honolulu Dept of Transportation Services – Honolulu is third (behind only San Francisco and San Diego) in tourism-related spending, which is correlated with single day passes. Its status as a tourist destination would seem to establish it as a good location for day pass sales. The agency has yet to study formally the cost or potential benefits of selling day passes.
- Port Authority of Allegheny County (Pittsburgh) – Agency staff blame old fare technology for the lack of day pass sales here, but a day pass does not necessitate sophisticated technology. The Pittsburgh area has a high rate of tourism spending, which is positively correlated with day passes.
- Fresno Area Express – Interviews indicate that this system used to sell day passes, but that they were poorly priced and lost money so they discontinued it rather than fix it. Fresno has a relatively high rate of tourism spending which is positively correlated with adoption of single day passes.
- Jacksonville Transportation Authority – Jacksonville has very high tourism-related expenditures and is a fairly large system. Interviews indicate that although there is interest at the agency in day pass sales, their fare box technology is incompatible with selling day passes on buses.

Possible alternate:

- Southwest Ohio Regional Transit Authority – The Cincinnati market has high tourism-related expenditures and system administrators expressed great interest in adopting such a

program. They indicated that antiquated fare technology and high cost prevent them from doing so at this time.

Guaranteed Ride Home

Each of the recommended agencies also already features an eco/employer pass program, which is strongly associated with adoption of a GRH program. The two programs may be seen as complementary. Some interviewees indicated program cost as an impediment, however, others remark that the program is only sparsely used and therefore inexpensive.

- Greater Dayton Regional Transit Authority – Dayton is a fairly compact and discrete metropolitan area, which has the potential to reduce the costs of such a program. Its fare box recovery rate is low, which is associated with GRH adoption. Dayton has modest commute times and density, consistent with the overall trend for agencies with GRH programs. . System administrators expressed interest in such a program but were concerned about potential costs. However, as noted earlier, other systems report that GRH is inexpensive to operate and a formal analysis might confirm that.
- Long Beach Public Transportation Company – Agency staff indicated that they fear the potential cost of such a program, although our research indicates that many agencies report that these programs are often not costly due to modest usage rates. Long Beach has a relatively low fare box recovery rate which is associated with adoption of GRH programs."
- Jacksonville Transportation Authority – Statistically, Jacksonville is a good match, as the service area is not dense, and the agency's fare box recovery rate is modest. They indicate that they used to have this program and it was considered successful, particularly among employers, but was dropped due to budget constraints. They are considering reinstating it. A more systematic analysis of the costs and benefits of GRH programs might reveal that the program is within reach.
- Port Authority of Allegheny County (Pittsburgh) – Although very densely populated, the area has relatively modest commute times. In interviews, agency staff indicated that the cost of such a program is the primary deterrent. However, as noted earlier, many systems report that GRH programs are very inexpensive to implement.
- Santa Monica Municipal Bus Lines – Although this agency has an employer pass program, the staff interviewed did not seem familiar with the potential benefits of a GRH program. Many of Santa Monica's buses do not run late which can make GRH more attractive

Possible alternate:

- Broward County Mass Transit Division – As was discussed earlier with this reasonably large agency, Broward has demonstrated a willingness to innovate in this area and if it was to implement an employer pass program, GRH would be a sensible complement.

On-Line Sales

Beyond perceived cost, there does not seem to be any particular impediment to agencies adopting on-line fare media sales, and so virtually any system could and perhaps should consider them. However, these agencies were the best fits available from the statistical analysis.

- Santa Clara County Valley Transit Authority – This agency has extremely low ridership and could benefit from any effort that would boost use of its system; it already offers all other ridership enhancement programs, suggesting a willingness to adopt marketing innovations. It has high total expenditures, a factor associated with agencies successfully offering on-line ticket sales. Customers in the technology-oriented Silicon Valley should be comfortable purchasing tickets on-line. Agency administrators expressed a desire to implement on-line sales but were concerned about the costs of purchasing a new secure server. However, other systems have implemented on-line sales without purchasing servers.
- City of Phoenix Public Transit Department – Interviews indicate that this agency would like to offer this, but that their “technology”, and specifically their 30-year old fare boxes do not currently support it. The agency does offer all of the other ridership enhancement programs, including an employer pass program. It is large system with respect to both vehicle miles and total expenditures. It also ranks fairly high in mean commute time, another factor associated with adoption of on-line sales.
- Central Ohio Transit Authority – Agency administrators expressed a desire to implement on-line sales but expressed concern about the potential cost of purchasing a secure server. However, as discussed earlier, the technique may not necessarily entail such a purchase and the benefits might outweigh the costs, in any event. The agency is medium-to-large in terms of total expenditures, factors positively associated with adoption of on-line sales. Its service area also has a relatively short average commute time, also associated with use of this technique.
- VIA Metropolitan Transit (San Antonio) – San Antonio is a medium-to-large system. Interviews did not reveal a compelling reason as to why this agency does not offer on-line sales. Its service area also has a relatively short average commute time.
- Greater Richmond Transit Company – Richmond is a moderately large system (vehicle miles and total expenditures). Interviews did not reveal a compelling reason as to why this agency does not offer on-line sales. Its service area also has a relatively modest average commute time.

Possible alternate:

- Mass Transit Department - City of El Paso – This is another relatively large agency (in terms of total expenditures) that does not offer on-line sales.

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APPENDICES

Ridership Enhancements Adopted by Largest 150 Transit Agencies

Systems with Eco Pass Program [and associated factors]

Systems without Eco Pass Programs [and associated factors]

Systems with Day Pass Sales [and associated factors]

Systems without Day Pass Sales [and associated factors]

Systems with Guaranteed Ride Home Programs [and associated factors]

Systems without Guaranteed Ride Home Programs [and associated factors]

Systems with On-Line Sales [and associated factors]

Systems without On-Line Sales [and associated factors]

Contact Information

Ridership Enhancement Techniques adopted by 150 largest transit agencies

NTDID	NAME	CITY	ECO PASS?	DAY PASS?	RIDE HOME?	BUY ON-LINE?
4042	Birmingham-Jefferson County Transit Authority	Birmingham	YES	NO	YES	NO
9032	City of Phoenix Public Transit Department	Phoenix	YES	YES	YES	NO
9033	City of Tucson (Sun Tran)	Tucson	YES	YES	YES	NO
9186	San Francisco Paratransit	San Francisco				
9157	Access Services Incorporated (Los Angeles CA)	Los Angeles				
9014	Alameda-Contra Costa Transit District	Oakland	Yes	NO	NO	NO
9078	Central Contra Costa Transit Authority	Concord	YES	NO	YES	NO
9147	City of Los Angeles Department of Transportation	Los Angeles	YES	YES	YES	YES
9028	City of Vallejo Transportation Program	Vallejo	NO	NO	NO	NO
9188	County of San Diego Transit System	San Diego	NO	YES	YES	YES
9146	Foothill Transit (West Covina CA)	West Covina	YES	NO	NO	NO*
9027	Fresno Area Express	Fresno	NO	NO	NO	NO
9016	Golden Gate Bridge, Highway and Transportation District	San Francisco	YES	NO	NO	YES
9023	Long Beach Public Transportation Company	Long Beach	YES	YES	NO	NO
9154	Los Angeles County Metropolitan Transportation Authority	Los Angeles	YES	YES	NO	YES
9062	Monterey-Salinas Transit	Monterey	YES	YES	YES	NO
9030	North San Diego County Transit Development Board	Oceanside	YES	YES	NO	NO
9029	Omnitrans (San Bernardino CA)	San Bernardino	YES	YES	NO	YES
9036	Orange County Transportation Authority (CA)	Orange	YES	YES	NO	YES
9134	Peninsula Corridor Joint Powers Board (San Carlos CA)	San Carlos	YES	YES	YES	YES
9031	Riverside Transit Agency (CA)	Riverside	NO	YES	NO	YES
9019	<i>Sacramento Regional Transit District</i>	Sacramento	YES	YES	YES	NO
9185	San Diego Metropolitan Transit Development Board	San Diego				
9026	San Diego Metropolitan Transit System	San Diego				
9054	San Diego Trolley, Inc.	San Diego				
9003	San Francisco Bay Area Rapid Transit District	Oakland	NO	NO	NO	YES
9015	<i>San Francisco Municipal Railway</i>	San Francisco	YES	YES	NO	YES
9012	San Joaquin Regional Transit District	Stockton	NO	YES	NO	NO
9009	San Mateo County Transit District	San Carlos	NO	NO	YES	NO
9013	Santa Clara Valley Transportation Authority	San Jose	YES	YES	YES	NO
9006	Santa Cruz Metropolitan Transit District	Santa Cruz	YES	YES	YES	NO

Ridership Enhancement Techniques adopted by 150 largest transit agencies

NTDID	NAME	CITY	ECO PASS?	DAY PASS?	RIDE HOME?	BUY ON-LINE?
9008	Santa Monica Municipal Bus Lines	Santa Monica	YES	NO	NO	NO
9151	Southern California Regional Rail Authority	Los Angeles	YES	NO	NO	NO
8006	Denver Regional Transportation District	Denver	YES	NO?	YES	YES
1048	Connecticut Transit-Hartford Division	Hartford	YES	YES	YES	YES
3030	Washington Metropolitan Area Transit Authority	Washington	YES	YES	YES	YES
3075	Delaware Transit Corporation	Dover	YES	YES	YES	YES
4029	Broward County Mass Transit Division	Pompano Beach	NO	YES	NO	NO
4035	Central Florida RTA (Orlando FL)	Orlando	YES	YES	YES	YES
4041	Hillsborough Area Regional Transit Authority	Tampa	YES	YES	YES	YES
4040	Jacksonville Transportation Authority	Jacksonville	YES	NO	NO	NO
4034	Miami-Dade Transit	Miami	YES	NO	NO	YES
4037	<i>Palm Tran, Inc.</i>	West Palm Beach	NO	YES	NO	NO
4027	Pinellas Suncoast Transit Authority	Clearwater	YES	YES	YES	NO
4077	Tri-County Commuter Rail Authority (Tri-Rail only)	Pompano Beach	YES	NO	YES	NO
4032	VOTRAN (South Daytona FL)	South Daytona	NO	NO	YES	NO
4025	Chatham Area Transit Authority	Savannah	NO	NO	NO	NO
4135	Georgia Regional Transportation Authority	Atlanta				
4022	Metropolitan Atlanta Rapid Transit Authority	Atlanta	YES	NO	NO	NO
9002	City and County of Honolulu Dept of Transportation Services	Honolulu	YES	NO	NO	NO
7010	Des Moines Metropolitan Transit Authority	Des Moines	YES	NO	NO	NO
5066	Chicago Transit Authority	Chicago	NO	YES	NO	YES
5146	Madison County Transit District	Granite City	NO	NO	NO	NO
5118	Northeast Illinois Regional Commuter Railroad Corporation	Chicago	NO	NO	NO	YES
5113	Pace, Suburban Bus Division	Arlington Heights	YES	NO	NO	YES
5050	Indianapolis Public Transportation Corporation	Indianapolis	NO	YES	YES	YES
5104	Northern Indiana Commuter Transportation District	Chesterton	NO	NO	NO	YES
4019	Transit Authority of Northern Kentucky	Fort Wright	NO	NO	YES	YES
4018	Transit Authority of River City (Louisville KY)	Louisville	NO	NO	YES	NO
6020	Crescent City Connection Division - Louisiana Department of Transportation	New Orleans				
6032	New Orleans Regional Transit Authority	New Orleans	NO	YES	NO	NO
1003	Massachusetts Bay Transportation Authority	Boston	YES	NO	NO	YES
1008	Pioneer Valley Transit Authority	Springfield	NO	NO	NO	NO
3034	Mass Transit Administration, Maryland Dept of Transportation	Baltimore	YES	YES	YES	YES

Ridership Enhancement Techniques adopted by 150 largest transit agencies

NTDID	NAME	CITY	ECO PASS?	DAY PASS?	RIDE HOME?	BUY ON-LINE?
3051	Ride-On Montgomery County Government	Rockville	YES	YES	YES	YES
5036	Capital Area Transportation Authority (Lansing MI)	Lansing	YES	NO	NO	YES
5119	City of Detroit Department of Transportation	Detroit	NO	NO	NO	NO
5141	Detroit Transportation Corporation	Detroit	NO	YES	NO	YES
5033	Interurban Transit Partnership (Grand Rapids MI)	Grand Rapids	NO	NO	YES	NO
5032	Mass Transportation Authority (Flint MI)	Flint	NO	NO	YES	NO
5031	Suburban Mobility Authority for Regional Transportation (Detroit MI)	Detroit	NO	NO	NO	NO
5027	Metro Transit (Minneapolis MN)	Minneapolis	YES	YES	YES	YES
5154	Metropolitan Council (St. Paul MN)	St. Paul				
7006	Bi-State Development Agency (St.Louis MO)	St. Louis	YES	YES	NO	YES
7005	Kansas City Area Transportation Authority	Kansas City	YES	YES	YES	YES
4008	<i>Charlotte Area Transit System</i>	Charlotte	YES	YES	YES	NO
7002	Transit Authority of Omaha	Omaha	NO	NO*	NO	YES
2122	Academy Lines, Inc. (NJ)	Hoboken	NO	NO	NO	NO
2126	<i>Hudson Transit Lines, Inc. (NJ)</i>	Mahwah	NO	NO	NO	YES
2080	New Jersey Transit Corporation	Newark	YES	NO	NO	YES
2098	Port Authority Trans-Hudson Corporation (NJ)	Jersey City	YES	NO	NO	NO
2075	Port Authority Transit Corporation (NJ)	Lindenwold	YES	NO	NO	NO
2128	Suburban Transit Corporation (NJ)	New Brunswick	NO	NO	NO	NO
6019	Sun Tran of Albuquerque	Albuquerque	YES	NO	YES	NO
9045	Regional Transportation Commission of Southern Nevada	Las Vegas	NO	YES	YES	YES
2002	Capital District Transportation Authority (Albany NY)	Albany	YES	YES	NO	YES
2018	CNY Centro, Inc. (Syracuse NY)	Syracuse	YES	NO	YES	NO
2147	GTJC-Transit Alliance (NY)	Jamaica				
2079	Liberty Lines Transit, Inc.(NY)	Yonkers	YES	NO	YES	NO
2007	Metropolitan Suburban Bus Authority, dba: MTA Long Island Bus	Garden City	YES	YES	NO	NO
2100	MTA Long Island Rail Road	Jamaica	YES	YES	NO	YES
2078	MTA Metro-North Railroad	New York	YES	YES	NO	YES
2099	MTA Staten Island Railway	Staten Island	YES	YES	NO	NO
2040	New York Bus Service	Bronx	YES	YES	NO	NO
2082	New York City DOT	New York				
2008	New York City Transit	New York	YES	YES	NO	NO
2004	Niagara Frontier TA	Buffalo	YES	NO	YES	NO
2136	Queens Surface Corp. (NY) (MTA)	Flushing				
2113	Regional Transit Service, Inc. and LiftLine, Inc.(NY)	Rochester	YES	YES	YES	YES

Ridership Enhancement Techniques adopted by 150 largest transit agencies

NTDID	NAME	CITY	ECO PASS?	DAY PASS?	RIDE HOME?	BUY ON-LINE?
2072	Suffolk Co. Dept. of Public Works - Transp. Div.	Yaphank	NO	YES	NO	NO
5016	Central Ohio Transit Authority	Columbus	YES	YES	YES	NO
5017	Greater Dayton Regional Transit Authority	Dayton	YES	NO	NO	NO
5010	Metro Regional Transit Authority (Akron OH)	Akron	NO (dropped)	YES	NO	NO
5012	Southwest Ohio Regional Transit Authority	Cincinnati	YES	NO	YES	NO
5015	The Greater Cleveland Regional Transit Authority	Cleveland	YES	YES	YES	YES
5022	Toledo Area Regional Transit Authority	Toledo	NO	NO	NO	NO
6017	Central Oklahoma Transportation & Parking Authority	Oklahoma City	YES	YES (trolley only)	YES	NO
6018	Metropolitan Tulsa Transit Authority	Tulsa	YES	NO	YES	NO
0007	Lane Transit District (Eugene OR)	Eugene	YES	YES	YES	NO*
0008	Tri-County Metropolitan Transp. District (Portland OR)	Portland	YES	YES	YES	NO
3067	ACCESS Transportation Systems, Inc. (Pittsburgh PA)	Pittsburgh	YES	NO	NO	NO
3012	Cambria County Transit Authority	Johnstown	NO	YES	NO	NO
3014	Cumberland-Dauphin-Harrisburg TA	Harrisburg	YES	NO	YES	NO*
3010	Lehigh and Northampton TA (PA)	Allentown	NO	YES	NO	NO
3022	Port Authority of Allegheny County	Pittsburgh	NO	NO	NO*	YES
3019	Southeastern Pennsylvania Transportation Authority	Philadelphia	YES	YES	NO	YES
4070	Puerto Rico Ports Authority	San Juan				
4105	Department of Transportation and Public Works (San Juan PR)	San Juan				
4086	Metropolitan Bus Authority (San Juan PR)	San Juan	NO	NO	NO	NO
1001	Rhode Island Public TA	Providence	YES	YES	YES	NO
4001	Chattanooga Area Regional Transportation Authority	Chattanooga	NO	NO	NO	NO
4003	Memphis Area Transit Authority	Memphis	NO (dropped)	NO	NO	NO
4004	Metropolitan Transit Authority (Nashville TN)	Nashville	NO	YES	NO	YES
6092	ATC-Vancom (Dallas TX)	Dallas				
6048	Capital Metropolitan Transportation Authority (Austin TX)	Austin	YES	YES	YES	YES
6051	Corpus Christi Regional Transportation Authority	Corpus Christi	YES	NO	NO	NO
6056	Dallas Area Rapid Transit	Dallas	YES	YES	YES	YES
6007	Fort Worth Transportation Authority	Fort Worth	NO	YES	YES	YES
6006	Mass Transit Department - City of El Paso	El Paso	NO	NO	NO	NO
6008	Metropolitan Transit Authority of Harris County, Texas	Houston	YES	YES	YES	YES
6011	VIA Metropolitan Transit (San Antonio TX)	San Antonio	YES	YES	YES	NO

Ridership Enhancement Techniques adopted by 150 largest transit agencies

NTDID	NAME	CITY	ECO PASS?	DAY PASS?	RIDE HOME?	BUY ON-LINE?
8001	Utah Transit Authority	Salt Lake City	YES	YES	YES	YES
3068	Fairfax Connector Bus System	Fairfax	YES	NO	YES	NO
3006	Greater Richmond Transit Company	Richmond	YES	NO	YES	NO
3083	Transportation District Commission of Hampton Roads	Hampton	NO	YES	NO	NO
3073	Virginia Railway Express	Alexandria	YES	NO	YES	YES
0018	Ben Franklin Transit (Richland WA)	Richland	NO	YES	YES	NO
0023	City of Seattle - Seattle Center Monorail Transit7	Seattle				
0024	Clark Co. Public Transp. Benefit Area Authority	Vancouver	NO	YES	YES	NO
0019	Intercity Transit (Olympia WA)	Olympia	NO	YES	NO	NO
0001	King County DOT-Metro Transit Div.	Seattle	YES	YES	YES	YES
0020	Kitsap Transit (Bremerton WA)	Bremerton	YES	NO	YES	YES
0003	Pierce County Transportation Benefit Area Authority4	Tacoma	YES	NO	YES	YES
0029	Snohomish Co. Transp. Benefit Area Corp.	Everett	YES	NO	YES	YES
0002	Spokane Transit Authority	Spokane	YES	NO	NO	YES
0035	Washington State Ferries3	Seattle	YES	NO	NO	YES
5003	Kenosha Transit	Kenosha	NO	NO (Sat. only)	NO	NO
5005	Madison Metro Transit	Madison	YES	YES	YES	YES
5008	Milwaukee County Transit System	Milwaukee	YES	NO	YES	NO
	TOTAL "YES"		86	67	63	56
	PERCENTAGE "YES"		67.2%	52.3%	48.5%	43.8%

Systems with employer pass programs [and associated factors]

NAME	ECO PASS?	Modes	Home ownership	Tourism	Vehicle Miles	Expenditures	Population
Birmingham-Jefferson County Transit Authority	YES	Single Mode	High	High	Medium	Low	Medium
City of Phoenix Public Transit Department	YES	Single Mode	Very High	Very High	Very High	High	High
City of Tucson (Sun Tran)	YES	Single Mode	High	High	High	Medium	Medium
Alameda-Contra Costa Transit District	Yes	Single Mode	Low	High	High	High	High
Central Contra Costa Transit Authority	YES	Single Mode	Very High	Medium	Low	Medium	Low
City of Los Angeles Department of Transportation	YES	Single Mode	Low		Very High	Medium	Very High
Foothill Transit (West Covina CA)	YES	Single Mode	Very High	Low	Low	High	Very High
Golden Gate Bridge, Highway and Transportation District	YES	Single Mode	Low	Very High	Very High	High	Medium
Long Beach Public Transportation Company	YES	Single Mode	Low	High	High	High	Medium
Los Angeles County Metropolitan Transportation Authority	YES	Multi Modal	Low		Very High	Very High	Very High
Monterey-Salinas Transit	YES	Single Mode	Low	Medium	Medium	Low	Low
North San Diego County Transit Development Board	YES	Single Mode	Very High		Low	High	Medium
Omnitrans (San Bernardino CA)	YES	Single Mode	High	Medium	Medium	High	High
Orange County Transportation Authority (CA)	YES	Single Mode	Very High	Medium	Medium	Very High	Very High
Peninsula Corridor Joint Powers Board (San Carlos CA)	YES	Multi Modal		Low	Low	High	Very High
Sacramento Regional Transit District	YES	Multi Modal	Medium	High	High	High	High
San Francisco Municipal Railway	YES	Multi Modal		Very High	Very High	Very High	Medium
Santa Clara Valley Transportation Authority	YES	Multi Modal	Very High	Very High	Very High	Very High	Very High
Santa Cruz Metropolitan Transit District	YES	Single Mode	Medium	Low	Low	Medium	Low
Santa Monica Municipal Bus Lines	YES	Single Mode	Low	High	High	Medium	Low
Southern California Regional Rail Authority	YES	Single Mode	Low		Very High	High	Very High
Denver Regional Transportation District	YES	Multi Modal	High	Very High	Very High	Very High	Very High
Connecticut Transit-Hartford Division	YES	Single Mode	Low	Medium	Medium	Medium	High
Washington Metropolitan Area Transit Authority	YES	Multi Modal	Low	Very High	Very High	Very High	High
Delaware Transit Corporation	YES	Single Mode	High	Low	Low	Medium	Medium
Central Florida RTA (Orlando FL)	YES	Single Mode	Low	High	High	High	Very High
Hillsborough Area Regional Transit Authority	YES	Multi Modal	High	Very High	High	Medium	Medium
Jacksonville Transportation Authority	YES	Single Mode	Very High	Very High	High	High	High
Pinellas Suncoast Transit Authority	YES	Single Mode	Very High	High	Medium	Medium	High
Metropolitan Atlanta Rapid Transit Authority	YES	Multi Modal	Medium	Very High	Very High	Very High	High

Systems with employer pass programs [and associated factors]

NAME	ECO PASS?	Modes	Home ownership	Tourism	Vehicle Miles	Expenditures	Population
City and County of Honolulu Dept of Transportation Services	YES	Single Mode	Medium	Very High	Very High	Very High	Medium
Des Moines Metropolitan Transit Authority	YES	Single Mode	Very High	Medium	Medium	Low	Low
Pace, Suburban Bus Division	YES	Single Mode	Medium	Medium	Medium	Very High	Very High
Transit Authority of River City (Louisville KY)	YES	Multi Modal	High	High	High	Medium	Medium
New Orleans Regional Transit Authority	YES	Multi Modal	Medium		Very High	High	Low
Massachusetts Bay Transportation Authority	YES	Single Mode	Low	Very High	Very High	Very High	Very High
Mass Transit Administration, Maryland Dept of Transportation	YES	Multi Modal	Medium	Very High	Very High	Very High	
Ride-On Montgomery County Government	YES	Single Mode	Very High	Low	Low	High	High
Capital Area Transportation Authority (Lansing MI)	YES	Single Mode	Very High	Very High	Very High	Low	Low
Metro Transit (Minneapolis MN)	YES	Single Mode	High	High		Very High	Very High
Bi-State Development Agency (St.Louis MO)	YES	Multi Modal	Medium	High	High	Very High	High
Kansas City Area Transportation Authority	YES	Single Mode	High	Very High	Very High	High	Medium
Charlotte Area Transit System	YES	Single Mode	High	Very High	Very High	High	Medium
New Jersey Transit Corporation	YES	Multi Modal	Low	High	Medium	Very High	Very High
Port Authority Trans-Hudson Corporation (NJ)	YES	Single Mode	Low	Low	Low	Very High	
Port Authority Transit Corporation (NJ)	YES	Single Mode	Very High	Low			Medium
Sun Tran of Albuquerque	YES	Single Mode	Medium	Very High	Very High	Low	Low
CNY Centro, Inc. (Syracuse NY)	YES	Single Mode	Low	Medium	Medium	Medium	Low
Liberty Lines Transit, Inc.(NY)	YES	Single Mode	Low	Low	Low	High	High
Metropolitan Suburban Bus Authority, dba: MTA Long Island Bus	YES	Single Mode					
MTA Long Island Rail Road	YES	Single Mode					
MTA Metro-North Railroad	YES	Single Mode					
MTA Staten Island Railway	YES	Single Mode					
New York Bus Service	YES	Single Mode					
New York City Transit	YES	Multi Modal	Low		Very High	Very High	
Niagara Frontier TA	YES	Multi Modal	Medium	Medium	Medium	High	High
Regional Transit Service, Inc. and LiftLine, Inc.(NY)	YES	Single Mode	Low	Medium	Medium	Medium	Medium
Central Ohio Transit Authority	YES	Single Mode	High	Medium	Medium	High	High
Greater Dayton Regional Transit Authority	YES	Single Mode	Very High	High	High	High	Medium
Southwest Ohio Regional Transit Authority	YES	Singe Mode	Medium	High	High	High	High
The Greater Cleveland Regional Transit Authority	YES	Multi Modal	Medium	Very High	Very High	Very High	High

Systems with employer pass programs [and associated factors]

NAME	ECO PASS?	Modes	Home ownership	Tourism	Vehicle Miles	Expenditures	Population
Central Oklahoma Transportation & Parking Authority	YES	Single Mode	High	High	High	Low	Medium
Metropolitan Tulsa Transit Authority	YES	Single Mode	Very High	Very High	High	Low	Medium
Lane Transit District (Eugene OR)	YES	Single Mode	High	Medium	Medium	Low	Low
Tri-County Metropolitan Transp. District (Portland OR)	YES	Multi Modal	High	Very High	Very High	Very High	
ACCESS Transportation Systems, Inc. (Pittsburgh PA)	YES	Single Mode					
Cumberland-Dauphin-Harrisburg TA	YES	Single Mode	Low	Low	Low	Low	Low
Port Authority of Allegheny County	YES	Multi Modal	High	High	High	Very High	Very High
Southeastern Pennsylvania Transportation Authority	YES	Multi Modal	Very High	Very High	Very High	Very High	Very High
Rhode Island Public TA	YES	Single Mode	Low	Medium	Medium	High	High
Metropolitan Transit Authority (Nashville TN)	Yes	Single Mode	High	Very High	Very High	Medium	Medium
Capital Metropolitan Transportation Authority (Austin TX)	YES	Single Mode	Medium	Very High	Very High	High	High
Corpus Christi Regional Transportation Authority	YES	Single Mode	Very High	High	High	Low	Low
Dallas Area Rapid Transit	YES	Multi Modal	Low	Very High	Very High	Very High	Very High
Fort Worth Transportation Authority	YES	Multi Modal	Medium		Very High	Medium	Medium
Metropolitan Transit Authority of Harris County, Texas	YES	Single Mode	High	Very High	Very High	Very High	Very High
VIA Metropolitan Transit (San Antonio TX)	YES	Single Mode	Very High	High	High	High	High
Utah Transit Authority	YES	Multi Modal	Medium	High	High	High	Very High
Fairfax Connector Bus System	YES	Single Mode	Very High	Low		Low	High
Greater Richmond Transit Company	YES	Single Mode	Medium	Medium	Medium	Medium	Medium
Virginia Railway Express	YES	Single Mode	Low	Medium	Medium	Medium	Medium
King County DOT-Metro Transit Div.	YES	Multi Modal	Medium	Very High	Very High	Very High	Very High
Kitsap Transit (Bremerton WA)	YES	Single Mode	Low	Low	Low	Low	Low
Pierce County Transportation Benefit Area Authority ⁴	YES	Single Mode	High	Medium	Medium	High	Medium
Snohomish Co. Transp. Benefit Area Corp.	YES	Single Mode	Medium	Medium	Low	High	Medium
Spokane Transit Authority	YES	Single Mode	Very High	Medium	Medium	Medium	Low
Washington State Ferries ³	YES	Single Mode	Medium	Very High	Very High	Very High	Very High
Madison Metro Transit	YES	Single Mode	Medium	High	High	Medium	Low
Milwaukee County Transit System	YES	Single Mode	Very High	Medium	Medium	Very High	High

Systems <u>without</u> employer pass programs [and associated factors]							
<i>Recommended systems in bold italics</i>							
NAME	ECO PASS?	Mode	Home ownership	Tourism	Vehicle Miles	Expenditures	Population
City of Vallejo Transportation Program	NO	Single Mode	Very High	Low	Low	Low	Low
County of San Diego Transit System	NO	Single Mode	Medium	Very High	Very High	Low	Very High
<i>Fresno Area Express</i>	<i>NO</i>	<i>Single Mode</i>	<i>Medium</i>	<i>High</i>	<i>High</i>	<i>Medium</i>	<i>Medium</i>
Riverside Transit Agency (CA)	NO	Single Mode	High	Medium			High
San Francisco Bay Area Rapid Transit District	NO	Single Mode	Low	High	High	Very High	Medium
San Joaquin Regional Transit District	NO	Single Mode	Medium	Medium	Medium	Medium	Medium
<i>San Mateo County Transit District</i>	<i>NO</i>	<i>Single Mode</i>	<i>Very High</i>	<i>Low</i>	<i>Low</i>	<i>High</i>	<i>Medium</i>
<i>Broward County Mass Transit Division</i>	<i>NO</i>	<i>Single</i>	<i>Very High</i>	<i>Low</i>	<i>Low</i>	<i>High</i>	<i>Very High</i>
Miami-Dade Transit	NO	Multi Modal	Low	High		Very High	Very High
Palm Tran, Inc.	NO	Single Mode	High	Medium	Medium	Medium	High
VOTRAN (South Daytona FL)	NO	Single Mode		Low		Low	Low
Chatham Area Transit Authority	NO	Single Mode	Medium	Medium	Medium	Low	Low
Chicago Transit Authority	NO	Multi Modal		Low		Very High	Very High
Madison County Transit District	NO	Single Mode	High	High	Medium	Low	Low
Northeast Illinois Regional Commuter Railroad Corporation	NO	Single Mode (rail only)	High	High		Very High	Very High
Northern Indiana Commuter Transportation District	NO	Single Mode (rail only)		Low	Low	Medium	High
Transit Authority of Northern Kentucky	NO	Single Mode	Very High	Low		Low	Low
Pioneer Valley Transit Authority	NO	Single Mode	Medium	Medium	Low	Low	Medium
<i>City of Detroit Department of Transportation</i>	<i>NO</i>	<i>Multi Modal</i>	<i>High</i>	<i>High</i>	<i>High</i>	<i>Very High</i>	<i>High</i>
Detroit Transportation Corporation	NO	Single Mode	Very High	Low	Low	Low	Low

Systems without employer pass programs [and associated factors]

<i>Recommended systems in bold italics</i>							
NAME	ECO PASS?	Mode	Home ownership	Tourism	Vehicle Miles	Expenditures	Population
Interurban Transit Partnership (Grand Rapids MI)	NO	Single Mode	High	Medium	Low	Low	Low
Mass Transportation Authority (Flint MI)	NO	Single Mode	Very High	Medium	Medium	Low	Low
Suburban Mobility Authority for Regional Transportation (Detroit MI)	NO	Single Mode	Very High	Low	Low	High	Very High
<i>Transit Authority of Omaha</i>	<i>NO</i>	<i>Single Mode</i>	<i>Very High</i>	<i>High</i>	<i>High</i>	<i>Low</i>	<i>Low</i>
Academy Lines, Inc. (NJ)	NO	Single Mode	Low	Low	Low	Medium	Very High
Suburban Transit Corporation (NJ)	NO	Single Mode	Low	Low	Low	Low	
<i>Regional Transportation Commission of Southern Nevada</i>	<i>NO</i>	<i>Single Mode</i>	<i>Very High</i>	<i>Very High</i>	<i>Very High</i>	<i>High</i>	<i>High</i>
Capital District Transportation Authority (Albany NY)	NO	Single Mode	Low	Medium	Low	Medium	Medium
Suffolk Co. Dept. of Public Works - Transp. Div.	NO	Single Mode		Low		Medium	High
Toledo Area Regional Transit Authority	NO	Single Mode	Medium	Very High	High	Medium	Low
Cambria County Transit Authority	NO	Single Mode		Low		Low	Low
Lehigh and Northampton TA (PA)	NO	Single Mode	High	Low	Low	Low	Low
Metropolitan Bus Authority (San Juan PR)	NO	Single Mode		Very High	Very High	High	Very High
Chattanooga Area Regional Transportation Authority	NO	Single Mode	High	High		Low	Low
Mass Transit Department - City of El Paso	NO	Single Mode	High	High	High	Medium	Medium
Transportation District Commission of Hampton Roads	NO	Single Mode	Very High	Low	Low	High	High
Ben Franklin Transit (Richland WA)	NO	Single Mode	Very High	Low	Low	Low	Low
Clark Co. Public Transp. Benefit Area Authority	NO	Single Mode	High	Medium	Low	Low	Low
Intercity Transit (Olympia WA)	NO	Single Mode	Medium	Low	Low	Low	Low
Kenosha Transit	NO	Multi Modal	Medium	High	High	Low	Low
Metro Regional Transit Authority (Akron OH)	NO (dropped)	Single Mode	Low	High	High	Low	Low
Memphis Area Transit Authority	NO (dropped)	Multi Modal		Very High	Very High	High	High
Indianapolis Public Transportation Corporation	NO (dropped)	Single Mode	Medium	Medium	Medium	Medium	Medium

Systems with Day Pass sales [and associated factors]					
NAME	CITY	DAY PASS?	Modes	Heavy/Commuter rail	Accommodation sales
City of Phoenix Public Transit Department	Phoenix	YES	Single Mode		Very High
City of Tucson (Sun Tran)	Tucson	YES	Single Mode		High
City of Los Angeles Department of Transportation	Los Angeles	YES	Single Mode		
County of San Diego Transit System	San Diego	YES	Single Mode		Very High
Long Beach Public Transportation Company	Long Beach	YES	Single Mode		High
Los Angeles County Metropolitan Transportation Authority	Los Angeles	YES	Multi Modal	Heavy Rail	
Monterey-Salinas Transit	Monterey	YES	Single Mode		Medium
North San Diego County Transit Development Board	Oceanside	YES	Single Mode	Commuter Rail	
Omnitrans (San Bernardino CA)	San Bernardino	YES	Single Mode		Medium
Orange County Transportation Authority (CA)	Orange	YES	Single Mode		Medium
Peninsula Corridor Joint Powers Board (San Carlos CA)	San Carlos	YES	Multi Modal	Commuter Rail	Low
Riverside Transit Agency (CA)	Riverside	YES	Single Mode		Medium
Sacramento Regional Transit District	Sacramento	YES	Multi Modal		High
San Francisco Municipal Railway	San Francisco	YES	Multi Modal		Very High
San Joaquin Regional Transit District	Stockton	YES	Single Mode		Medium
Santa Clara Valley Transportation Authority	San Jose	YES	Multi Modal		Very High
Santa Cruz Metropolitan Transit District	Santa Cruz	YES	Single Mode		Low
Connecticut Transit-Hartford Division	Hartford	YES	Single Mode		Medium
Washington Metropolitan Area Transit Authority	Washington	YES	Multi Modal	Heavy Rail	Very High
Delaware Transit Corporation	Dover	YES	Single Mode		Low
Broward County Mass Transit Division	Pompano Beach	YES	Single Mode		Low
Central Florida RTA (Orlando FL)	Orlando	YES	Single Mode		High
Hillsborough Area Regional Transit Authority	Tampa	YES	Multi Modal		Very High
Palm Tran, Inc.	West Palm Beach	YES	Single Mode		Medium
Pinellas Suncoast Transit Authority	Clearwater	YES	Single Mode		High
Chicago Transit Authority	Chicago	YES	Multi Modal	Heavy Rail	Low
Indianapolis Public Transportation Corporation	Indianapolis	YES	Single Mode		Medium
New Orleans Regional Transit Authority	New Orleans	YES	Multi Modal		
Mass Transit Administration, Maryland Dept of Transportation	Baltimore	YES	Multi Modal	Heavy Rail/Commuter Rail	Very High
Ride-On Montgomery County Government	Rockville	YES	Single Mode		Low
Detroit Transportation Corporation	Detroit	YES	Single Mode		Low

Systems with Day Pass sales [and associated factors]

NAME	CITY	DAY PASS?	Modes	Heavy/Commuter rail	Accommodation sales
Metro Transit (Minneapolis MN)	Minneapolis	YES	Single Mode		High
Bi-State Development Agency (St.Louis MO)	St. Louis	YES	Multi Modal		High
Kansas City Area Transportation Authority	Kansas City	YES	Single Mode		Very High
Charlotte Area Transit System	Charlotte	YES	Single Mode		Very High
Regional Transportation Commission of Southern Nevada	Las Vegas	YES	Single Mode		Very High
Capital District Transportation Authority (Albany NY)	Albany	YES	Single Mode		Medium
Metropolitan Suburban Bus Authority, dba: MTA Long Island Bus	Garden City	YES	Single Mode		
MTA Long Island Rail Road	Jamaica	YES	Single Mode	Commuter Rail	
MTA Metro-North Railroad	New York	YES	Single Mode	Commuter Rail	
MTA Staten Island Railway	Staten Island	YES	Single Mode	Heavy Rail	
New York Bus Service	Bronx	YES	Single Mode		
New York City Transit	New York	YES	Multi Modal	Heavy Rail	
Regional Transit Service, Inc. and LiftLine, Inc. (NY)	Rochester	YES	Single Mode		Medium
Suffolk Co. Dept. of Public Works - Transp. Div.	Yaphank	YES	Single Mode		Low
Central Ohio Transit Authority	Columbus	YES	Single Mode		Medium
Metro Regional Transit Authority (Akron OH)	Akron	YES	Single Mode		High
The Greater Cleveland Regional Transit Authority	Cleveland	YES	Multi Modal	Heavy Rail	Very High
Lane Transit District (Eugene OR)	Eugene	YES	Single Mode		Medium
Tri-County Metropolitan Transp. District (Portland OR)	Portland	YES	Multi Modal		Very High
Cambria County Transit Authority	Johnstown	YES	Single Mode		Low
Lehigh and Northampton TA (PA)	Allentown	YES	Single Mode		Low
Southeastern Pennsylvania Transportation Authority	Philadelphia	YES	Multi Modal	Heavy Rail/Commuter Rail	Very High
Rhode Island Public TA	Providence	YES	Single Mode		Medium
Metropolitan Transit Authority (Nashville TN)	Nashville	YES	Single Mode		Very High
Capital Metropolitan Transportation Authority (Austin TX)	Austin	YES	Single Mode		Very High
Dallas Area Rapid Transit	Dallas	YES	Multi Modal	Commuter Rail	Very High
Fort Worth Transportation Authority	Fort Worth	YES	Multi Modal	Commuter Rail	
Metropolitan Transit Authority of Harris County, Texas	Houston	YES	Single Mode		Very High
VIA Metropolitan Transit (San Antonio TX)	San Antonio	YES	Single Mode		High
Utah Transit Authority	Salt Lake City	YES	Multi Modal		High
Transportation District Commission of Hampton Roads	Hampton	YES	Single Mode		Low
Ben Franklin Transit (Richland WA)	Richland	YES	Single Mode		Low
Clark Co. Public Transp. Benefit Area Authority	Vancouver	YES	Single Mode		Medium
Intercity Transit (Olympia WA)	Olympia	YES	Single Mode		Low

Systems with Day Pass sales [and associated factors]

NAME	CITY	DAY PASS?	Modes	Heavy/Commuter rail	Accommodation sales
King County DOT-Metro Transit Div.	Seattle	YES	Multi Modal		Very High
Madison Metro Transit	Madison	YES	Single Mode		High
Central Oklahoma Transportation & Parking Authority	Oklahoma City	YES	Single Mode		High

Agencies <u>without</u> Day Pass sales [and associated factors]					
<i>Recommended agencies in bold italics</i>					
NAME	CITY	DAY PASS?	Modes	Rail	Tourism
Birmingham-Jefferson County Transit Authority	Birmingham	NO	Single Mode		High
Alameda-Contra Costa Transit District	Oakland	NO	Single Mode		High
Central Contra Costa Transit Authority	Concord	NO	Single Mode		Medium
City of Vallejo Transportation Program	Vallejo	NO	Single Mode		Low
Foothill Transit (West Covina CA)	West Covina	NO	Single Mode		Low
<i>Fresno Area Express</i>	<i>Fresno</i>	<i>NO</i>	<i>Single Mode</i>		<i>High</i>
Golden Gate Bridge, Highway and Transportation District	San Francisco	NO	Single Mode		Very High
San Francisco Bay Area Rapid Transit District	Oakland	NO	Single Mode	Heavy Rail	High
San Mateo County Transit District	San Carlos	NO	Single Mode		Low
Santa Monica Municipal Bus Lines	Santa Monica	NO	Single Mode		High
Southern California Regional Rail Authority	Los Angeles	NO	Single Mode	Commuter Rail	
<i>Jacksonville Transportation Authority</i>	<i>Jacksonville</i>	<i>NO</i>	<i>Single Mode</i>		<i>Very High</i>
<i>Miami-Dade Transit</i>	<i>Miami</i>	<i>NO</i>	<i>Multi Modal</i>	<i>Heavy Rail</i>	<i>High</i>
Tri-County Commuter Rail Authority (Tri-Rail only)	Pompano Beach	NO	Single Mode	Commuter Rail	Low
VOTRAN (South Daytona FL)	South Daytona	NO	Single Mode		Low
Chatham Area Transit Authority	Savannah	NO	Single Mode		Medium
Metropolitan Atlanta Rapid Transit Authority	Atlanta	NO	Multi Modal	Heavy Rail	Very High
<i>City and County of Honolulu Dept of Transportation Services</i>	<i>Honolulu</i>	<i>NO</i>	<i>Single Mode</i>		<i>Very High</i>
Des Moines Metropolitan Transit Authority	Des Moines	NO	Single Mode		Medium
Madison County Transit District	Granite City	NO	Single Mode		High
Northeast Illinois Regional Commuter Railroad Corporation	Chicago	NO	Single Mode (rail only)	Commuter Rail	High
Pace, Suburban Bus Division	Arlington Heights	NO	Single Mode		Medium
Northern Indiana Commuter Transportation District	Chesterton	NO	Single Mode	Commuter Rail	Low
Transit Authority of Northern Kentucky	Fort Wright	NO	Single Mode		Low
Transit Authority of River City (Louisville KY)	Louisville	NO	Multi Modal		High
Massachusetts Bay Transportation Authority	Boston	NO	Single Mode		Very High
Pioneer Valley Transit Authority	Springfield	NO	Single Mode		Medium
Capital Area Transportation Authority (Lansing MI)	Lansing	NO	Single Mode		Very High

Agencies without Day Pass sales [and associated factors]

<i>Recommended agencies in bold italics</i>					
NAME	CITY	DAY PASS?	Modes	Rail	Tourism
City of Detroit Department of Transportation	Detroit	NO	Multi Modal		High
Interurban Transit Partnership (Grand Rapids MI)	Grand Rapids	NO	Single Mode		Medium
Mass Transportation Authority (Flint MI)	Flint	NO	Single Mode		Medium
Suburban Mobility Authority for Regional Transportation (Detroit MI)	Detroit	NO	Single Mode		Low
Academy Lines, Inc. (NJ)	Hoboken	NO	Single Mode		Low
Hudson Transit Lines, Inc. (NJ)	Mahwah	NO	Single Mode		Low
New Jersey Transit Corporation	Newark	NO	Multi Modal	Commuter Rail	High
Port Authority Trans-Hudson Corporation (NJ)	Jersey City	NO	Single Mode	Heavy rail	Low
Port Authority Transit Corporation (NJ)	Lindenwold	NO	Single Mode	Heavy rail	Low
Suburban Transit Corporation (NJ)	New Brunswick	NO	Single Mode		Low
Sun Tran of Albuquerque	Albuquerque	NO	Single Mode		Very High
CNY Centro, Inc. (Syracuse NY)	Syracuse	NO	Single Mode		Medium
Liberty Lines Transit, Inc.(NY)	Yonkers	NO	Single Mode		Low
Niagara Frontier TA	Buffalo	NO	Multi Modal		Medium
Greater Dayton Regional Transit Authority	Dayton	NO	Single Mode		High
<i>Southwest Ohio Regional Transit Authority</i>	<i>Cincinnati</i>	<i>NO</i>	<i>Single Mode</i>		<i>High</i>
Toledo Area Regional Transit Authority	Toledo	NO	Single Mode		Very High
Metropolitan Tulsa Transit Authority	Tulsa	NO	Single Mode		Very High
ACCESS Transportation Systems, Inc. (Pittsburgh PA)	Pittsburgh	NO	Single Mode		
Cumberland-Dauphin-Harrisburg TA	Harrisburg	NO	Single Mode		Low
<i>Port Authority of Allegheny County</i>	<i>Pittsburgh</i>	<i>NO</i>	<i>Multi Modal</i>		<i>High</i>
Metropolitan Bus Authority (San Juan PR)	San Juan	NO	Single Mode		Very High
Chattanooga Area Regional Transportation Authority	Chattanooga	NO	Single Mode		High
Memphis Area Transit Authority	Memphis	NO	Multi Modal		Very High
Corpus Christi Regional Transportation Authority	Corpus Christi	NO	Single Mode		High
Mass Transit Department - City of El Paso	El Paso	NO	Single Mode		High
Fairfax Connector Bus System	Fairfax	NO	Single Mode		Low
Greater Richmond Transit Company	Richmond	NO	Single Mode		Medium
Virginia Railway Express	Alexandria	NO	Single Mode	Commuter Rail	Medium
Kitsap Transit (Bremerton WA)	Bremerton	NO	Single Mode		Low
Pierce County Transportation Benefit Area Authority4	Tacoma	NO	Single Mode		Medium
Snohomish Co. Transp. Benefit Area Corp.	Everett	NO	Single Mode		Medium

Agencies without Day Pass sales [and associated factors]

Recommended agencies in bold italics

NAME	CITY	DAY PASS?	Modes	Rail	Tourism
Spokane Transit Authority	Spokane	NO	Single Mode		Medium
Washington State Ferries ³	Seattle	NO	Single Mode		Very High
Milwaukee County Transit System	Milwaukee	NO	Single Mode		Medium
Kenosha Transit	Kenosha	NO (Sat. only)	Multi Modal		High
Transit Authority of Omaha	Omaha	NO*	Single Mode		High
Denver Regional Transportation District	Denver	NO?	Multi Modal		Very High

Agencies with Guaranteed Ride Home programs [and associated factors]						
NAME	RIDE HOME?	Offers Eco/Employer passes	Rail	Commute time	Population density	Fare Box Recovery
Birmingham-Jefferson County Transit Authority	YES	YES		Medium	Low	Low
City of Phoenix Public Transit Department	YES	YES		High	Medium	Medium
City of Tucson (Sun Tran)	YES	YES		Low	Medium	Medium
Central Contra Costa Transit Authority	YES	YES		Very High	High	Medium
City of Los Angeles Department of Transportation	YES	YES		Very High	Very High	Medium
County of San Diego Transit System	YES	NO		Medium	High	Very High
Monterey-Salinas Transit	YES	YES		Low	Medium	High
Peninsula Corridor Joint Powers Board (San Carlos CA)	YES	YES	Commuter Rail	High	High	Very High
Sacramento Regional Transit District	NO	YES		Medium	High	High
San Mateo County Transit District	YES	NO			High	High
Santa Clara Valley Transportation Authority	YES	YES		High	High	Low
Santa Cruz Metropolitan Transit District	YES	YES		Medium	High	Medium
Denver Regional Transportation District	YES	YES		High	Medium	High
Connecticut Transit-Hartford Division	YES	YES		Medium	Very High	High
Washington Metropolitan Area Transit Authority	YES	YES	Heavy Rail	Very High	Very High	
Delaware Transit Corporation	YES	YES		Low	Low	High
Central Florida RTA (Orlando FL)	YES	YES		High	Low	High
Hillsborough Area Regional Transit Authority	YES	YES		Medium	Medium	High
Pinellas Suncoast Transit Authority	YES	YES		Medium	High	High
Tri-County Commuter Rail Authority (Tri-Rail only)	YES	YES	Commuter Rail	High	High	Very High
VOTRAN (South Daytona FL)	YES	NO		High	Low	Medium
Indianapolis Public Transportation Corporation	YES	NO		Very High	Very High	Medium
Transit Authority of Northern Kentucky	YES	NO		Medium	Low	
Transit Authority of River City (Louisville KY)	YES	YES		Low	High	Low
Mass Transit Administration, Maryland Dept of Transportation	YES	YES	Heavy Rail/Commuter Rail	Very High	Very High	Very High
Ride-On Montgomery County Government	YES	YES		Very High	Medium	Low
Interurban Transit Partnership (Grand Rapids MI)	YES	NO		Low	Medium	Medium
Mass Transportation Authority (Flint MI)	YES	NO		Low	High	Medium
Metro Transit (Minneapolis MN)	YES	YES		Very High	Very High	Very High
Bi-State Development Agency (St.Louis MO)	YES	YES		High	High	High

Agencies with Guaranteed Ride Home programs [and associated factors]

NAME	RIDE HOME?	Offers Eco/Employer passes	Rail	Commute time	Population density	Fare Box Recovery
Kansas City Area Transportation Authority	YES	YES		Medium	Low	Low
Charlotte Area Transit System	YES	YES		High	Low	Low
Sun Tran of Albuquerque	YES	YES		High	Medium	Low
Regional Transportation Commission of Southern Nevada	YES	NO		High	High	Very High
CNY Centro, Inc. (Syracuse NY)	YES	YES		Low	High	High
Liberty Lines Transit, Inc.(NY)	YES	YES		Very High	Very High	Very High
Niagara Frontier TA	YES	YES		Low	Very High	High
Regional Transit Service, Inc. and LiftLine, Inc.(NY)	YES	YES		Low	Very High	Very High
Central Ohio Transit Authority	YES	YES		Low	Very High	Medium
Southwest Ohio Regional Transit Authority	YES	YES		High	Medium	Very High
The Greater Cleveland Regional Transit Authority	YES	YES	Heavy Rail	Medium	Medium	Medium
Central Oklahoma Transportation & Parking Authority	YES	YES		Low	Low	Low
Metropolitan Tulsa Transit Authority	YES	YES		Low	Medium	Low
Lane Transit District (Eugene OR)	YES	YES		Low	Medium	Medium
Tri-County Metropolitan Transp. District (Portland OR)	YES	YES		Medium	Medium	High
Cumberland-Dauphin-Harrisburg TA	YES	YES		Low	Very High	High
Rhode Island Public TA	YES	YES		Low	Very High	Medium
Capital Metropolitan Transportation Authority (Austin TX)	YES	YES		Medium	Medium	Low
Dallas Area Rapid Transit	YES	YES	Commuter Rail	High	Medium	Low
Fort Worth Transportation Authority	YES	YES	Commuter Rail	High	Medium	Low
Metropolitan Transit Authority of Harris County, Texas	YES	YES		Medium	Medium	Medium
VIA Metropolitan Transit (San Antonio TX)	YES	YES		Low	Low	Medium
Utah Transit Authority	YES	YES		Low	Low	Medium
Fairfax Connector Bus System	YES	YES		Very High	Low	
Greater Richmond Transit Company	YES	YES		Medium	Medium	Very High
Virginia Railway Express	YES	YES	Commuter Rail	Very High	Very High	
Ben Franklin Transit (Richland WA)	YES	NO		Low	Low	Low
Clark Co. Public Transp. Benefit Area Authority	YES	NO		Medium	Medium	Low
King County DOT-Metro Transit Div.	YES	YES		High	Very High	Medium
Kitsap Transit (Bremerton WA)	YES	YES		Very High	Low	Low

Agencies with Guaranteed Ride Home programs [and associated factors]

NAME	RIDE HOME?	Offers Eco/Employer passes	Rail	Commute time	Population density	Fare Box Recovery
Pierce County Transportation Benefit Area Authority ⁴	YES	YES		High	Medium	Low
Snohomish Co. Transp. Benefit Area Corp.	YES	YES		High	Medium	Medium
Madison Metro Transit	YES	YES		Medium	Very High	Medium
Milwaukee County Transit System	YES	YES		Low	Medium	High

Agencies without Guaranteed Ride Home programs [and associated factors]

Recommended agencies in bold italics

NAME	RIDE HOME?	Eco Pass?	Rail	Commute time	Density	Fare Box Recovery
City of Vallejo Transportation Program	NO	NO		Very High	High	Very High
Foothill Transit (West Covina CA)	NO	YES		Very High	Very High	High
Fresno Area Express	NO	NO		Medium	Low	Very High
Golden Gate Bridge, Highway and Transportation District	NO	YES		Very High	Very High	Very High
<i>Long Beach Public Transportation Company</i>	<i>NO</i>	<i>YES</i>		<i>Very High</i>	<i>Very High</i>	<i>High</i>
Los Angeles County Metropolitan Transportation Authority	NO	YES	Heavy Rail	Very High	Very High	Very High
North San Diego County Transit Development Board	NO	YES	Commuter Rail	Very High		Very High
Omnitrans (San Bernardino CA)	NO	YES		High	Medium	High
Orange County Transportation Authority (CA)	NO	YES		High	High	High
Riverside Transit Agency (CA)	NO	NO		Very High	Low	Medium
San Francisco Bay Area Rapid Transit District	NO	NO	Heavy Rail	Very High	Very High	
San Francisco Municipal Railway	NO	YES		Very High	Very High	High
San Joaquin Regional Transit District	NO	NO		High	High	Medium
<i>Santa Monica Municipal Bus Lines</i>	<i>NO</i>	<i>YES</i>		<i>High</i>	<i>Very High</i>	<i>High</i>
Southern California Regional Rail Authority	NO	YES	Commuter Rail	Very High	Very High	
<i>Broward County Mass Transit Division</i>	<i>NO</i>	<i>NO</i>		<i>High</i>	<i>High</i>	<i>Medium</i>
<i>Jacksonville Transportation Authority</i>	<i>NO</i>	<i>YES</i>		<i>High</i>	<i>Low</i>	<i>Low</i>
Miami-Dade Transit	NO	NO	Heavy Rail	High	Very High	High
Palm Tran, Inc.	NO	NO		Medium	Low	Medium
Chatham Area Transit Authority	NO	NO		Medium	Low	High
Metropolitan Atlanta Rapid Transit Authority	NO	YES	Heavy Rail	High	Medium	Very High
City and County of Honolulu Dept of Transportation Services	NO	YES		Medium	High	High
Des Moines Metropolitan Transit Authority	NO	YES			Medium	Very High
Chicago Transit Authority	NO	NO	Heavy Rail	High	Low	Very High
Madison County Transit District	NO	NO		Low	High	Low
Northeast Illinois Regional Commuter Railroad Corporation	NO	NO	Commuter Rail	Very High	Very High	Very High

Agencies without Guaranteed Ride Home programs [and associated factors]

Recommended agencies in bold italics

NAME	RIDE HOME?	Eco Pass?	Rail	Commute time	Density	Fare Box Recovery
Northern Indiana Commuter Transportation District	NO	NO	Commuter Rail	Very High	High	Very High
New Orleans Regional Transit Authority	NO	YES		High	Medium	Very High
Massachusetts Bay Transportation Authority	NO	YES		Very High	Very High	Very High
Pioneer Valley Transit Authority	NO	NO		Low	High	Medium
Capital Area Transportation Authority (Lansing MI)	NO	YES		Medium	Low	Low
City of Detroit Department of Transportation	NO	NO		Very High	Very High	Medium
Detroit Transportation Corporation	NO	NO		Medium	Low	
Suburban Mobility Authority for Regional Transportation (Detroit MI)	NO	NO		Medium	High	Low
Transit Authority of Omaha	NO	NO		Low	Medium	High
Academy Lines, Inc. (NJ)	NO	NO		Very High	Very High	
Hudson Transit Lines, Inc. (NJ)	NO	?		Very High	High	
New Jersey Transit Corporation	NO	YES	Commuter Rail	Very High	Very High	Very High
Port Authority Trans-Hudson Corporation (NJ)	NO	YES	Heavy rail	Very High	Very High	Very High
Port Authority Transit Corporation (NJ)	NO	YES	Heavy rail	High	Low	
Suburban Transit Corporation (NJ)	NO	NO		Medium	Very High	
Capital District Transportation Authority (Albany NY)	NO	NO		Low	High	High
Metropolitan Suburban Bus Authority, dba: MTA Long Island Bus	NO	YES				
MTA Long Island Rail Road	NO	YES	Commuter Rail			
MTA Metro-North Railroad	NO	YES	Commuter Rail			
MTA Staten Island Railway	NO	YES	Heavy Rail			
New York Bus Service	NO	YES				
New York City Transit	NO	YES	Heavy Rail	Very High	Very High	
Suffolk Co. Dept. of Public Works - Transp. Div.	NO	NO		Very High	Low	Very High
<i>Greater Dayton Regional Transit Authority</i>	<i>NO</i>	<i>YES</i>		<i>Low</i>	<i>Medium</i>	<i>Low</i>
Metro Regional Transit Authority (Akron OH)	NO	NO (dropped)		Medium	High	Low
Toledo Area Regional Transit Authority	NO	NO		Medium	Very High	Medium
ACCESS Transportation Systems, Inc. (Pittsburgh PA)	NO	YES				

Agencies without Guaranteed Ride Home programs [and associated factors]

Recommended agencies in bold italics

NAME	RIDE HOME?	Eco Pass?	Rail	Commute time	Density	Fare Box Recovery
Cambria County Transit Authority	NO	NO		Medium	Low	Low
Lehigh and Northampton TA (PA)	NO	NO		Low	High	Medium
Southeastern Pennsylvania Transportation Authority	NO	YES	Heavy Rail/Commuter Rail	Very High	Very High	Very High
Metropolitan Bus Authority (San Juan PR)	NO	NO		High	Medium	Low
Chattanooga Area Regional Transportation Authority	NO	NO		Low	Low	High
Metropolitan Transit Authority (Nashville TN)	NO	Yes		Medium	Low	Very High
Corpus Christi Regional Transportation Authority	NO	YES		Low	Low	Low
Mass Transit Department - City of El Paso	NO	NO		High	Low	Medium
Transportation District Commission of Hampton Roads	NO	NO		Medium	Medium	Very High
Intercity Transit (Olympia WA)	NO	NO		Low	Medium	Low
Spokane Transit Authority	NO	YES		Low	Medium	Medium
Washington State Ferries3	NO	YES		High	Very High	High
Kenosha Transit	NO	NO		Low	Medium	Low
<i>Port Authority of Allegheny County</i>	<i>NO</i>	<i>YES</i>		<i>Medium</i>	<i>Very High</i>	<i>Very High</i>

Agencies with On-Line Sales [and associated factors]

Recommended agencies in bold italics

NAME	BUY ON-LINE?	Vehicle Miles	Expenditures	Commute time	Service area size
City of Los Angeles Department of Transportation	YES	Very High	Medium	Very High	High
County of San Diego Transit System	YES	Very High	Low	Medium	Very High
Golden Gate Bridge, Highway and Transportation District	YES	Very High	High	Very High	Medium
Los Angeles County Metropolitan Transportation Authority	YES	Very High	Very High	Very High	Very High
Omnitrans (San Bernardino CA)	YES	Medium	High	High	High
Orange County Transportation Authority (CA)	YES	Medium	Very High	High	High
Peninsula Corridor Joint Powers Board (San Carlos CA)	YES	Low	High	High	High
Riverside Transit Agency (CA)	YES			Very High	
San Francisco Bay Area Rapid Transit District	YES	High	Very High	Very High	Low
<i>San Francisco Municipal Railway</i>	YES	Very High	Very High	Very High	Low
Denver Regional Transportation District	YES	Very High	Very High	High	data not found
Connecticut Transit-Hartford Division	YES	Medium	Medium	Medium	Very High
Washington Metropolitan Area Transit Authority	YES	Very High	Very High	Very High	Very High
Delaware Transit Corporation	YES	Low	Medium	Low	data not found
Central Florida RTA (Orlando FL)	YES	High	High	High	
Hillsborough Area Regional Transit Authority	YES	High	Medium	Medium	Medium
Miami-Dade Transit	YES		Very High	High	Medium
Chicago Transit Authority	YES		Very High	High	High
Northeast Illinois Regional Commuter Railroad Corporation	YES		Very High	Very High	data not found
Pace, Suburban Bus Division	YES	Medium	Very High	Very High	
Indianapolis Public Transportation Corporation	YES	Medium	Medium	Very High	High
Northern Indiana Commuter Transportation District	YES	Low	Medium	Very High	
Transit Authority of Northern Kentucky	YES		Low	Medium	Very High
Massachusetts Bay Transportation Authority	YES	Very High	Very High	Very High	
Mass Transit Administration, Maryland Dept of Transportation	YES	Very High	Very High	Very High	
Ride-On Montgomery County Government	YES	Low	High	Very High	High
Capital Area Transportation Authority (Lansing MI)	YES	Very High	Low	Medium	Low
Detroit Transportation Corporation	YES	Low	Low	Medium	Low
Metro Transit (Minneapolis MN)	YES		Very High	Very High	Very High
Bi-State Development Agency (St.Louis MO)	YES	High	Very High	High	Very High
Kansas City Area Transportation Authority	YES	Very High	High	Medium	High
Transit Authority of Omaha	YES	High	Low	Low	Low

Agencies with On-Line Sales [and associated factors]

Recommended agencies in bold italics

NAME	BUY ON-LINE?	Vehicle Miles	Expenditures	Commute time	Service area size
<i>Hudson Transit Lines, Inc. (NJ)</i>	YES		Medium	Very High	
New Jersey Transit Corporation	YES	Medium	Very High	Very High	
Regional Transportation Commission of Southern Nevada	YES	Very High	High	High	Medium
Capital District Transportation Authority (Albany NY)	YES	Low	Medium	Low	
MTA Long Island Rail Road	YES				
MTA Metro-North Railroad	YES				
Regional Transit Service, Inc. and LiftLine, Inc. (NY)	YES	Medium	Medium	Low	Medium
The Greater Cleveland Regional Transit Authority	YES	Very High	Very High	Medium	High
Port Authority of Allegheny County	YES	High	Very High	Medium	Very High
Southeastern Pennsylvania Transportation Authority	YES	Very High	Very High	Very High	Very High
Metropolitan Transit Authority (Nashville TN)	YES	Very High	Medium	Medium	High
Capital Metropolitan Transportation Authority (Austin TX)	YES	Very High	High	Medium	Very High
Dallas Area Rapid Transit	YES	Very High	Very High	High	Very High
Fort Worth Transportation Authority	YES	Very High	Medium	High	Medium
Metropolitan Transit Authority of Harris County, Texas	YES	Very High	Very High	Medium	Very High
Utah Transit Authority	YES	High	High	Low	Very High
Virginia Railway Express	YES	Medium	Medium	Very High	Very High
King County DOT-Metro Transit Div.	YES	Very High	Very High	High	data not found
Kitsap Transit (Bremerton WA)	YES	Low	Low	Very High	High
Pierce County Transportation Benefit Area Authority ⁴	YES	Medium	High	High	High
Snohomish Co. Transp. Benefit Area Corp.	YES	Low	High	High	Medium
Spokane Transit Authority	YES	Medium	Medium	Low	Low
Washington State Ferries ³	YES	Very High	Very High	High	Very High
Madison Metro Transit	YES	High	Medium	Medium	Low
	41.8% YES				

Agencies <u>without</u> On-Line Sales [and associated factors]					
<i>Recommended agencies in bold italics</i>					
NAME	BUY ON-LINE?	Vehicle Miles	Expenditures	Commute time	Service area size
Birmingham-Jefferson County Transit Authority	NO	Medium	Low	Medium	Low
<i>City of Phoenix Public Transit Department</i>	<i>NO</i>	<i>Very High</i>	<i>High</i>	<i>High</i>	<i>Very High</i>
City of Tucson (Sun Tran)	NO	High	Medium	Low	Medium
Alameda-Contra Costa Transit District	NO	High	Very High	Very High	High
Central Contra Costa Transit Authority	NO	Low	Medium	Very High	Low
City of Vallejo Transportation Program	NO	Low	Low	Very High	Low
Fresno Area Express	NO	High	Medium	Medium	Low
Long Beach Public Transportation Company	NO	High	High	Very High	Low
Monterey-Salinas Transit	NO	Medium	Low	Low	Medium
North San Diego County Transit Development Board	NO	Low	High	Very High	High
Sacramento Regional Transit District	NO	High	High	Medium	High
San Joaquin Regional Transit District	NO	Medium	Medium	High	
San Mateo County Transit District	NO	Low	High		Low
<i>Santa Clara Valley Transportation Authority</i>	<i>NO</i>	<i>Very High</i>	<i>Very High</i>	<i>High</i>	<i>Medium</i>
Santa Cruz Metropolitan Transit District	NO	Low	Medium	Medium	High
Santa Monica Municipal Bus Lines	NO	High	Medium	High	Low
Southern California Regional Rail Authority	NO	Very High	High	Very High	
Broward County Mass Transit Division	NO	Low	High	High	High
Jacksonville Transportation Authority	NO	High	High	High	Medium
Palm Tran, Inc.	NO	Medium	Medium	Medium	High
Pinellas Suncoast Transit Authority	NO	Medium	Medium	Medium	Medium
Tri-County Commuter Rail Authority (Tri-Rail only)	NO	Low	Medium	High	
VOTRAN (South Daytona FL)	NO		Low	High	Very High
Chatham Area Transit Authority	NO	Medium	Low	Medium	High
Metropolitan Atlanta Rapid Transit Authority	NO	Very High	Very High	High	High
City and County of Honolulu Dept of Transportation Services	NO	Very High	Very High	Medium	Very High
Des Moines Metropolitan Transit Authority	NO	Medium	Low		Low
Madison County Transit District	NO	Medium	Low	Low	Low
Transit Authority of River City (Louisville KY)	NO	High	Medium	Low	Medium
New Orleans Regional Transit Authority	NO	Very High	High	High	Low
Pioneer Valley Transit Authority	NO	Low	Low	Low	Medium
City of Detroit Department of Transportation	NO	High	Very High	Very High	Low
Interurban Transit Partnership (Grand Rapids MI)	NO	Low	Low	Low	Low

Agencies without On-Line Sales [and associated factors]

Recommended agencies in bold italics

NAME	BUY ON-LINE?	Vehicle Miles	Expenditures	Commute time	Service area size
Mass Transportation Authority (Flint MI)	NO	Medium	Low	Low	Medium
Suburban Mobility Authority for Regional Transportation (Detroit MI)	NO	Low	High	Medium	Very High
Charlotte Area Transit System	NO	Very High	High	High	High
Academy Lines, Inc. (NJ)	NO	Low	Medium	Very High	
Port Authority Trans-Hudson Corporation (NJ)	NO	Low	Very High	Very High	Medium
Port Authority Transit Corporation (NJ)	NO			High	Medium
Suburban Transit Corporation (NJ)	NO	Low	Low	Medium	
Sun Tran of Albuquerque	NO	Very High	Low	High	Low
CNY Centro, Inc. (Syracuse NY)	NO	Medium	Medium	Low	Very High
Liberty Lines Transit, Inc.(NY)	NO	Low	High	Very High	High
Metropolitan Suburban Bus Authority, dba: MTA Long Island Bus	NO				
MTA Staten Island Railway	NO				
New York Bus Service	NO				
New York City Transit	NO	Very High	Very High	Very High	
Niagara Frontier TA	NO	Medium	Medium	Low	
Suffolk Co. Dept. of Public Works - Transp. Div.	NO		Medium	Very High	Very High
<i>Central Ohio Transit Authority</i>	<i>NO</i>	<i>Medium</i>	<i>High</i>	<i>Low</i>	<i>High</i>
Greater Dayton Regional Transit Authority	NO	High	High	Low	Medium
Metro Regional Transit Authority (Akron OH)	NO	High	Low	Medium	High
Southwest Ohio Regional Transit Authority	NO	High	High	High	Medium
Toledo Area Regional Transit Authority	NO	High	Medium	Medium	Low
Central Oklahoma Transportation & Parking Authority	NO	High	Low	Low	Medium
Metropolitan Tulsa Transit Authority	NO	High	Low	Low	Medium
Tri-County Metropolitan Transp. District (Portland OR)	NO	Very High	Very High	Medium	Very High
ACCESS Transportation Systems, Inc. (Pittsburgh PA)	NO				
Cambria County Transit Authority	NO		Low	Medium	Low
Lehigh and Northampton TA (PA)	NO	Low	Low	Low	Low
Metropolitan Bus Authority (San Juan PR)	NO	Very High	High	High	Medium
Rhode Island Public TA	NO	Medium	High	Low	High
Chattanooga Area Regional Transportation Authority	NO		Low	Low	Medium
Memphis Area Transit Authority	NO	Very High	High	Medium	Medium
Corpus Christi Regional Transportation Authority	NO	High	Low	Low	Very High
<i>Mass Transit Department - City of El Paso</i>	<i>NO</i>	<i>High</i>	<i>Medium</i>	<i>High</i>	<i>Medium</i>

Agencies without On-Line Sales [and associated factors]

Recommended agencies in bold italics

NAME	BUY ON-LINE?	Vehicle Miles	Expenditures	Commute time	Service area size
<i>VIA Metropolitan Transit (San Antonio TX)</i>	<i>NO</i>	<i>High</i>	<i>High</i>	<i>Low</i>	<i>Very High</i>
Fairfax Connector Bus System	NO		Low	Very High	High
<i>Greater Richmond Transit Company</i>	<i>NO</i>	<i>Medium</i>	<i>Medium</i>	<i>Medium</i>	<i>High</i>
Transportation District Commission of Hampton Roads	NO	Low	High	Medium	High
Ben Franklin Transit (Richland WA)	NO	Low	Low	Low	Low
Clark Co. Public Transp. Benefit Area Authority	NO	Low	Low	Medium	Low
Intercity Transit (Olympia WA)	NO	Low	Low	Low	Low
Kenosha Transit	NO	High	Low	Low	Low
Milwaukee County Transit System	NO	Medium	Very High	Low	Medium
Foothill Transit (West Covina CA)	NO*	Low	High	Very High	High
Lane Transit District (Eugene OR)	NO*	Medium	Low	Low	Medium
Cumberland-Dauphin-Harrisburg TA	NO*	Low	Low	Low	Low

CONTACT INFORMATION FOR 150 LARGEST TRANSIT AGENCIES

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Access Services Incorporated (Los Angeles CA)**

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* denotes contractor or subcontractor with no direct ticket sales

** denotes paratransit service

*** denotes limited route service (people mover, e.g.)

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* denotes contractor or subcontractor with no direct ticket sales

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*** denotes limited route service (people mover, e.g.)

San Diego Metropolitan Transit Development Board*
San Diego Metropolitan Transit System*
San Diego Trolley, Inc.*
[See County of San Diego Transit System]

San Francisco Bay Area Transit District
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San Francisco Municipal Railway
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* denotes contractor or subcontractor with no direct ticket sales
** denotes paratransit service
*** denotes limited route service (people mover, e.g.)

Delaware Transit Corporation

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Miami-Dade Transit

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Pinellas Suncoast Transit Authority

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VOTRAN (South Daytona FL)

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Georgia Regional Transportation Authority*

* denotes contractor or subcontractor with no direct ticket sales

** denotes paratransit service

*** denotes limited route service (people mover, e.g.)

Metropolitan Atlanta Rapid Transit Authority

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**Crescent City Connection Division - Louisiana
Department of Transportation***

* denotes contractor or subcontractor with no direct ticket sales

** denotes paratransit service

*** denotes limited route service (people mover, e.g.)

New Orleans Regional Transit Authority

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Pioneer Valley Transit Authority

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Mass Transit Administration, Maryland Dept of Transportation

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Ride-On Montgomery County Government

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Hudson Transit Lines, Inc. (NJ)
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MTA Metro-North Railroad [Note: MTA subsidiary]

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MTA Staten Island Railway [Note: MTA subsidiary]

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