

Privately-Provided Commuter Bus Services

ROLE IN THE SAN FRANCISCO BAY AREA REGIONAL TRANSPORTATION NETWORK

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KEY ACRONYMS

BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit District
CMAQ	Congestion Mitigation and Air Quality
FTA	Federal Transit Administration
FHWA	Federal Highway Administration
MTC	Metropolitan Transportation Commission
MUNI	San Francisco Municipal Transportation Agency
TFCA	Transportation Fund for Clean Air
TDM	Transportation Demand Management

SUMMARY

This study focuses on transit initiatives provided by private companies to meet regional commute travel demand. Specifically, the research spotlights privately-provided commuter buses that operate during peak hours and offer customer-oriented routes with limited stops and coach amenities to suburban employment destinations. This type of service differs from those provided by intercity bus companies, including Greyhound, which are primarily intended for destination travel rather than routine commuting. Defined here, privately-provided commuter bus service refers to the private provision of coach service to suburban employment sites from residential areas, service that may or may not be associated with a public transit agency.

In the San Francisco Bay Area, the majority of the privately-provided commuter bus services travel from residential areas, in both cities and suburbs, to low density employment sites of one or more companies. Currently, three types of privately-provided commuter bus services are in operation in the Bay Area: employer-based, fee-based and partnership-based.

Several prominent companies in or nearby Silicon Valley, including Genentech, Google and Yahoo!, are providing long distance commuter bus service exclusively for their employees and the trend is becoming popular at other companies. The buses are provided exclusively for employees as a fully subsidized benefit, bringing those who live in both urban and suburban areas to the companies' suburban campus locations on a luxury coach. Routes are typically over 20 miles in length and have a robust employee ridership. In fact, the buses have the largest impact in reducing drive alone commuting than any of the other transportation demand management (TDM) programs offered. The companies value the service based on benefits including 1) recruiting from a larger pool of applicants, 2) increasing productivity, 3) decreasing parking demand, 4) meeting city TDM requirements and 5) reducing environmental impacts. With the popularity of the employer-based commuter service, transportation companies have also responded to demand, providing similar service but open to the public. Additionally, several transit agencies have formed partnerships with companies or with commuters themselves to provide long distance bus service.

Part of the success of privately-provided commuter buses is due to the flexible and direct service to employment areas not well covered by public transit. Commuters are drawn to the bus service as it reflects their preferences and commute routes. Even highly-paid professionals who are otherwise able to drive alone to work and afford rising gas prices are choosing the bus for more productive use of their commute made possible by on-board wireless internet service. By offering an attractive and convenient ridesharing option, fewer cars travel on local streets and congested highways. The high ridership has also produced economic and environmental benefits. Transit lines and local businesses nearby the commuter stops have experienced increased consumer activity and the number of drive-alone trips forgone has decreased congestion and emission levels.

The relatively recent proliferation of privately-provided commuter programs in the Bay Area will require formal recognition by public agencies. Though privately-provided commuter bus services have operated in one form or another for the past 50 years, the same challenges to their long-term viability have persisted. The main challenges include market entry and competition, regulatory constraints and financial hurdles. Where privately-provided commuter bus services have been successful are in markets that are not cost effective for transit service due to the low density of both riders and land use.

Private companies and public agencies can work collaboratively to implement policy that mitigates direct competition to ensure both sectors can provide economically efficient and viable services in their respective niches. Transit agencies have used innovative approaches to provide peak period long distance service, including the use of part-time drivers, peak period service reductions and selective fare increases. Transit agencies have

high labor costs due to employer-paid benefits and high wage rates relative to drivers of privately-provided commuter service. Additionally, employment decentralization to low density areas with easy freeway access are not well matched to traditional bus and rail lines as travel patterns between home and work are generally indirect, dispersed and long distance. Transit services that can mimic these travel patterns at times competitive to driving have attracted commuters and play an important role in filling the gaps in the regional transit system. In the Bay Area, private commuter bus services have filled this role on the regional level.

Instead of providing long distance express services themselves, transit agencies can effectively promote privately-provided commuter bus service by encouraging and facilitating private sector operations and contracting with private operators. Transit agencies have varying opinions about privately-provided commuter bus services. Some, including MBTA, collaborate with private operators for service to low density areas while relieving the transit agency of operational responsibility for the services. MBTA provides example to its peer agencies that are not as open to collaboration with private companies. While a few privately-provided commuter bus operations do not pose a substantial threat or interference to transit operations, the proliferation of commuter services in the Bay Area raise shows the need for increased public-private collaboration.

Public agencies should recognize the limitations in the amount of service they can cost-effectively provide and expand their scope to include coordination assistance for all public and private transportation services to provide a seamless system for the customer. Part of this process is to have privately-provided commuter bus services be recognized as a transportation alternative. Public agencies can also better coordinate the orderly development of a multi-modal urban transportation system when all services are formally integrated in to the planning process. Some actions public transit agencies can undertake to support privately-provided commuter bus services are listed in Table 2 of Section 7, *Next Steps and Recommendations*.

As commuter buses generally travel over 20 miles and go through several jurisdictions, involvement of metropolitan planning organizations is critical to realize the benefits the private services provide. Some actions regional agencies can undertake to support privately-provided commuter bus services are listed in Table 3 of Section 7.

Through their funding programs and regulations, state governments can have direct influence on the actions taken by public transportation agencies. State agencies, especially the departments of transportation, are increasingly exploring ways to improve quality of life through air quality regulations, growth management, transportation efficiency and public-private partnerships. Some state DOTs are approaching congestion in ways that promote ridesharing, transit and other alternative modes and supportive land use policies. Privately-provided commuter bus services are one method to reduce drive alone trips that take up limited highway space and state agencies can take steps that promote private transit use and acceptance. Recommendations for state actions are listed Table 4 of Section 7.

The federal government influences transportation policy through its funding programs and regulations. The Obama Administration has enacted the U.S. Department of Transportation Livability Initiative and the Federal Sustainable Communities Partnership. The Sustainable Communities Partnership engages the Department of Transportation, the Environmental Protection Agency (EPA) and the Department of Housing and Urban Development (HUD) to provide affordable housing and more transportation options through compact land use.

The first of the six principles guiding the Sustainable Communities Partnership calls for the provision of “more transportation choices: develop safe, reliable and economical transportation choices to decrease household

transportation costs, reduce our nation's dependence on foreign oil, improve air quality, reduce greenhouse gas emissions and promote public health."¹ Privately-provided commuter buses accomplish all the goals listed under the principle and the FTA can take steps to recognize that private transit companies can also accomplish these goals. Table 5 of Section 7 lists recommendations for the federal government to support privately-provided commuter bus service.

Conventional fixed route transit service is unable to meet all the transportation needs of a modern urban area where decentralized residential and employment patterns lead to indirect, dispersed and long-distance travel patterns. National, state and local strategies and action plans are needed to allow for more innovative transportation options that fall out of the purview of public transit agencies but are complementary to fixed route services. Advocacy, networking and policy development at the regional level is needed to increase recognition and create opportunities for privately-provided commuter bus service, in all forms.

¹ Livable and Sustainable Communities." Federal Transit Administration.
http://fta.dot.gov/publications/publications_10935.html (Accessed February 2010).

1. INTRODUCTION AND STUDY PURPOSE

This study focuses on transit initiatives provided by private companies to meet regional commute travel demand. Specifically, the research spotlights privately-provided commuter buses that operate during peak hours and offer customer-oriented routes with limited stops and coach amenities to suburban employment destinations. This type of service differs from those provided by intercity bus companies, such as Greyhound, which are primarily intended for destination travel rather than routine commuting. Defined here, privately-provided commuter bus service refers to the private provision of coach service to suburban employment sites from residential areas, service that may or may not be associated with a public transit agency.

Privately-provided commuter buses have been in operation in one form or the other since 1950. In particular, the fiscal problems facing many of the public transportation industry during the 1980s presented opportunities for expanded entry into the commuter transportation market. Despite demand, private transit service began to decline in the 1990s as their routes were either taken over by transit agencies or could not compete with fare subsidies. Today, few of the operators are still in business and those that have survived benefited from either endorsement from or partnership with transit agencies.

Recently, privately-operated commuter bus services have regenerated themselves to incorporate the latest advancements in wireless communications, alternative fuels and passenger comfort, most prominently in the San Francisco Bay Area. This next generation of services started around 2004 and grew in response to the demand for express travel between cities or suburbs to low density employment centers that promoted environmental sustainability.

The providers of the service are large employers or private transportation companies. Employers consider long-distance bus service from their employees' residential areas direct to the office to be valuable to the growth of the company, and addressing congestion, parking demand and air quality concerns. Though the provision of buses or shuttles have long been common to employer transportation demand management programs, service has mainly been to the nearest regional transit stop. Few companies have provided home to work services similar to those offered by prominent Bay Area companies including Genentech, Google and Yahoo!. The company-provided commuter bus service is immensely popular with the employee population and has encouraged private transportation companies to enter into the market to provide similar service open to the public. In addition, a hybrid model also exists in the Bay Area involving transit agency collaboration with employers, private transportation companies or with the commuter themselves.

Privately-provided commuter buses offer flexible and direct service to employment areas not well covered by public transit. The buses are luxury coaches and many operate on alternative fuels. Seats are arranged to facilitate laptop use and with wireless access, commuters are able to start or end their workday en route. Even highly-paid professionals who are otherwise able to drive alone to work and afford rising gas prices are choosing the bus for more productive use of their commute. By offering an attractive and convenient ridesharing option, fewer cars travel on local streets and the congested highways.

The success of these services indicates the potential for more privately-operated commuter buses. Since most conventional fixed-route systems are not well suited to handle the majority of city-to-suburb or suburb-to-suburb work trips, privately-provided commuter buses do not directly compete with transit services. Instead, they complement transit service, filling transit gaps on a regional level by providing service to areas where public transit is not cost-effective due to insufficient density. Commuter buses are not constrained by jurisdictional boundaries and with limited stops, they offer competitive travel times to driving for distances 20 miles or greater in length.

This study aims to clarify the role of privately-operated commuter buses in the regional transportation system. Section 2 will present an overview of the services and Section 3 will show how privately-provided commuter bus services contribute to the regional transportation network. Section 4 will discuss the challenges to initiating and maintaining commuter services. Section 5 discusses the complementary roles of vanpools and privately-provided commuter bus services. Section 6 highlights the roles of public agencies in supporting commuter buses and Section 7 concludes with recommendations. Appendix A provides step-by-step recommendations for companies to initiate commuter bus service.

2. DESCRIPTION OF PRIVATELY-PROVIDED COMMUTER BUS SERVICES

Commuter bus services are organized by employers, commuters, transit agencies and transportation companies. They are a demand driven, customer-oriented form of transportation designed to follow home-to-work travel patterns, with runs in each of the morning and evening peak periods. Service is direct, stopping at a few locations before running express to the destination. The ride itself is comfortable, and seating is usually guaranteed. Essentially, they provide an attractive and effective mode for home to work travel not well served by conventional transit. With its fast service and amenity orientation, the commuter bus is a viable alternative to driving.

In the San Francisco Bay Area, commuter buses are primarily provided by public transit agencies and private companies. Alameda-Contra Costa Transit, Golden Gate Transit, SamTrans and Valley Transportation Authority each have express buses serving the commuter market. However, these services either provide trips primarily destined for San Francisco, or circulate within the same or directly adjacent transit jurisdiction. The majority of privately-provided commuter bus services travel from residential areas, in both cities and suburbs, to employment areas with such low density that transit cannot provide cost-effective service. As such, little overlap or competition exists between them and the public transit services offered in the Bay Area.

Private companies rely on data to determine commuter origin and destination points and attract riders to their buses. Currently, three types of privately-provided commuter bus services are in operation in the Bay Area: 1) employer-based; 2) fee-based; and 3) partnership-based. Each type is highlighted in the following sections, developed with information collected through interviews and research. Interviewees include Genentech, Google, Microsoft and Yahoo! for the employer-based programs; Bauer's Intelligent Transportation for fee-based programs; and Golden Gate Bridge, Highway, and Transportation District, King County Metro and the Massachusetts Bay Transportation Authority for partnership-based programs.

2.1 PRIVATELY-PROVIDED EMPLOYER-BASED COMMUTER BUS SERVICES

Company sponsored transportation is hardly a novel concept, especially for large industrial companies in isolated locations. The companies that have bus or shuttle service typically pick up employees from the nearest regional transit stop. In the past few years however, a few companies have expanded their bus service area to provide home to work transportation. Several prominent companies in or nearby northern California's Silicon Valley, including Genentech, Google and Yahoo!, are providing long distance commuter bus service exclusively for their employees and the trend has caught on at other companies, including Microsoft in Washington, high cost withstanding. The buses are provided exclusively for employees as a fully subsidized benefit, bringing those who live in both urban and suburban areas to the companies' suburban campus locations on a luxury coach. Routes are typically over 25 miles in length and have a robust employee ridership. In fact, the buses have the largest impact in reducing drive alone commuting than any of the other transportation demand management (TDM) programs offered by the companies.

Several features including high amenity orientation, drive-time-competitiveness, and external factors, high gasoline prices, delays due to congestion, have contributed to the success of the employer sponsored regional bus service. Perhaps the most prominent feature is wireless internet access, enabling productive use of commute time. Employees can choose to begin their work day on the 30-40 minute ride. Working on a laptop is comfortable, with conveniences including tables, electrical outlets and window shades. These amenities have created demand for the commuter services even by highly skilled, highly paid professionals who can convert unproductive time into billable hours. Wireless internet access may play a key role in attracting riders, as evidenced by a pilot and survey conducted by King County Metro to determine whether to install wireless

internet access on their express buses. Riders considered the access an important feature for long commutes and employers indicated their willingness to pay their employees for the time spent working on the bus.²

The corporate commuter bus services are combined with other TDM programs to offer a comprehensive package that alleviates concerns over having access to a vehicle for workday travel and for personal emergencies. On campus, employers retain cars or bikes for use during the work day and some are considering contracting with car sharing companies to provide a fleet of cars. All companies have an emergency ride/Guaranteed Ride Home program that provides free taxi rides in case of emergencies. Employees are able to visit one page through their company's website to obtain information on all TDM programs. Through the page, employees can sign up to receive notification of late buses or changes in service with text messages and emails. Real time bus arrival information displays are located at campus bus stops.

Image 1. Employees Boarding a Commuter Bus in San Francisco



Source: California Center for Innovative Transportation

Other TDM programs offered by the companies interviewed are vanpool and carpool matching programs to provide transportation alternatives to those employees without commuter bus service. Not all residential areas have sufficient density to fill a bus and the companies work with their employees to form vanpools and carpools which have wireless internet access and preferential parking on campus. The commuter buses, vanpools and carpools, as well as public transit service together form a comprehensive network of alternative transportation options for employees.

Providing commuter bus services is a costly venture, especially when not charging a fee. Though the exact figure could not be acquired from the interviews due to the confidential nature of company financials, a commuter bus program with comprehensive service in terms of routes and runs, as well as insurance, liability and contractor expenses, can cost well into the millions annually.³ Depending on the company, the program may not be a substantial cost when compared to other expenses. Even if the cost is considered substantial, the companies interviewed consider it to be a reasonable expense in exchange for the value the program brings to the employee's quality of life and the company's physical and environmental footprint. Specifically, companies

² King County Metro. "Metro bus riders can sample Wi-Fi as part of extended pilot project." 5 Apr. 2007. <http://metro.kingcounty.gov/up/archives/2007/wifipilot.html> (Accessed October 2009).

³ As a "back-of-the-envelope" calculation, each passenger trip roughly costs \$10 (plus or minus \$3.00-\$4.00 depending on efficiencies).

value the service based on benefits including 1) recruiting from a larger pool of applicants, 2) increasing productivity, 3) decreasing parking demand, 4) meeting city TDM requirements and 5) reducing environmental impacts. Each benefit is further detailed in the sections below.

RECRUITING AND RETENTION

The transportation managers of Genentech, Google, Microsoft and Yahoo! all stated that recruiting and retention are among the top reasons for providing the commuter buses. The buses allow companies to recruit from a larger labor pool as the prospective employee does not have to factor the cost of commuting to the campus location when deciding to apply for or accept a job offer. The bus service also allows employees to live in locations that suit their lifestyles. This mobility may not be a positive aspect when considering that the more environmental choice is to live near work to decrease travel costs, congestion and air pollution altogether. While this is a valid argument, the reality is that people will live where they can afford housing or in areas fitting their preferences. Additionally, the companies have found that employees who live close to campus usually drive as few convenient transit options are typically available to the campus, and insufficient and unsafe pedestrian infrastructure make transit difficult to access. Nevertheless, the companies do not offer bus service to those living within a specified radius of the campus, providing free transit passes instead to encourage local transit use.

INFORMAL EMPLOYEE INTERACTION AND PRODUCTIVITY GAINS

The transportation managers interviewed also remarked on the sense of community fostered by the bus. Riders come from different departments and the bus provides an unstructured way to socialize and share ideas. For example, a few riders of the Yahoo! bus go for happy hour drinks after getting off the bus in their residential community.

The investment in wireless internet access has paid off in terms of productivity gains. Commuters are able to start or end their work day on the bus ride. Many employees check their email on their way to work and focus on their projects once on campus. Vanpool and carpoolers are given wireless internet access kits to equip their vehicles. As the Seattle Times article, *Microsoft Connector: 19 Routes, 53 Buses Later* found, the “the workday has either begun, or is extended.”⁴

PARKING REDUCTIONS

For companies with limited space, TDM programs, especially the commuter buses and vanpools, reduce the demand for parking. Genentech provides good example of a company in this situation, having to work with limited campus space to accommodate future growth in business ventures and employee population. Additional growth increases parking demand and with surface parking lots slated to be converted to buildings, not enough parking could be provided on campus in the future if demand was not mitigated. Additionally, parking would have to be provided in structures, a costly undertaking.

⁴ Long, Katherine. "Microsoft Connector: 19 routes, 53 buses later." *The Seattle Times* [Seattle] 12 Apr. 2009. http://seattletimes.nwsources.com/cgi-bin/PrintStory.pl?document_id=2009025535&zsection_id=2003750725&slug=msshuttle12m&date=20090412 (Accessed October 2009).

The financial cost of parking infrastructure is driven by a few key factors, namely the number of parking spaces required, the cost per parking space and the 'opportunity cost' of the land. Opportunity cost is the cost of using a space for parking instead of a use with higher value and varies depending on the development context. In infill locations, the opportunity cost can be quite high, as each on-site parking space can reduce the potential for other uses including housing and offices. Parking garages are more costly to construct, operate, and maintain than surface parking lots, with construction costs of over \$29,000 per space in the suburban Bay Area, compared to \$2,000 per surface parking space.⁵ With operating costs running \$300 to \$500 per space per year, structures are a costly undertaking, especially if demand can be mitigated.

Instead of building a number of parking garages, Genentech decided to use the money to instead pay people not to drive and park on campus. The amount per day an employee who takes an alternative mode receives is \$4.00. Genentech's approach has proved cost effective as running the entire TDM program, including the commuter bus service, is less expensive than providing and maintaining structured parking, and accommodates the mobility needs of substantially more employees. Though parking structures will need to be provided sometime in the future, the number needed has been reduced as a result of the TDM program.

CITY TDM REQUIREMENTS

Some companies are required to have TDM programs according to city ordinances. For example, Genentech is located in the city of South San Francisco which enacted a citywide TDM Ordinance requiring all non-residential developments expected to generate one hundred or more average daily trips or seeking a floor area ratio (FAR) bonus to obtain a certain percentage of alternative mode use. The required alternative mode use for all projects is 28 percent and non-residential applicants who propose projects with a higher FAR are required additional increases.⁶ Classified as a business technology park, Genentech had to achieve a 30 percent alternative mode use rate to qualify for a FAR bonus to meet their future campus growth. Due to their marketing efforts, ridesharing services, walking and bicycling programs, Genentech achieved a 35 percent alternative mode use rate and are actively seeking to raise the percentage. Other cities are also considering or in the process of enacting TDM requirements to reduce congestion and emissions.

REDUCING ENVIRONMENTAL IMPACTS

Genentech is not the only company that chooses to continually set higher targets for employee alternative mode use. Many employers see it as a way to enhance employee quality of life and address environmental concerns. Each of the interviewed transportation managers listed sustainability as a motivation behind their TDM programs. Yahoo! in particular is changing its energy consumption practices as well as investing in greenhouse gas reduction projects to reduce its climate impact. Their commute alternatives program is part of their strategy of achieving carbon neutrality, particularly for their Sunnyvale, California headquarters. Their goal by 2010 is to achieve a 30-35 percent alternate mode use, or 1.5 employees for every one car coming to campus. Their current alternative mode use is 25 percent.

⁵ EPA. "Parking Spaces / Community Places: Finding the Balance through Smart Growth Solutions." *EPA 231-K-06-001* (2006). <http://www.epa.gov/piedpage/pdf/EPAParkingSpaces06.pdf> (Accessed October 2009).

⁶ South San Francisco Municipal Code, § 20.120.030 Program Requirements and Standards. <http://qcode.us/codes/southsanfrancisco> (Accessed October 2009).

2.2 PRIVATELY-PROVIDED FEE-BASED COMMUTER BUS SERVICES

With the popularity of the employer-based commuter service, transportation companies have also responded to demand, providing similar service but open to the public. While transportation companies have provided commute routes throughout the United States for over forty years, many operations have folded due to competition from transit agencies and decline in demand. The emerging generation of commuter oriented bus service faces the same challenges and issues; however, the integration of technology, especially wireless internet access, as well as the steady increase of gasoline prices and peak period congestion may contribute to their long-term viability. Bauer's Intelligent Transportation is an example of a charter bus company that has entered into the commuter market.⁷

Bauer's offers a luxury coach ride, entitled Wi-Drive, equipped with wireless internet access, plush seats, tables and laptop outlets. The service initiated in March 2009 and fares range from \$5.00 to \$10.00 per ride depending on the length of the trip. The fare can be paid with pre-tax commuter checks or onboard with a credit card.

Bauer's Transportation initiated Wi-Drive in response to the demand for high amenity commuter buses in the Bay Area. Operating service along major commute corridors, Wi-Drive offers a service comparable to that of Genentech, Google, Microsoft and Yahoo!, but publically available. Some routes, especially those running to the Silicon Valley area, stop near employers that do not have a commuter bus program of their own. For example, Wi-Drive stops nearby the Cisco campus, enabling Cisco employees to have access to high quality bus service without company contribution, other than employee pre-tax commuter benefits. One run to the area is currently 80 percent full, comprised mainly of Cisco employees. Another route runs by Sun Microsystems and Tyco Electronics.

Image 2. Interior of a Wi-Drive Bus



Source: California Center for Innovative Transportation

Bauer's seeks to accomplish three major objectives with Wi-Drive: service expansion, transportation sustainability and technology integration. Bauer's is considering expanding their commuter operations to regional economic centers across the United States, demonstrating the company's view that a market exists

⁷ Lon Baylor, Wi-Drive Operations Manager. "Bauer's Transportation Wi-Drive." Interview by the California Center for Innovative Transportation. October 15, 2009.

even in regions with less information technology industry presence. Bauer's is committed to greening their fleet. Wi-Drive runs on biodiesel and the company is looking to work with bus manufacturing companies to build more fuel efficient hybrid buses that runs on battery on local streets and while idling, and on biodiesel on the highways. Bauer's has also integrated technology features on their buses that respond to customer needs, including credit card readers and online reservation systems.

Wi-Drive is less costly to operate than employer-based commuter bus programs as its ridership is not reliant on one company's employees. Furthermore, the company fills the drivers' schedules throughout the day to reduce the unit cost of the service. For example, one route between San Francisco and Silicon Valley also provides service between Fremont BART and Sunnyvale between peak hour runs.

Bauer's gained experience from contracting with Google and Yahoo! to run their commuter bus program before initiating Wi-Drive. Other motorcoach companies may not have the same experience but can initiate similar service. High gas prices, the lengthening of commutes due to traffic congestion and economic decentralization, and the ability to use travel time productively has created demand for privately-provided fee-based services.

2.3 PARTNERSHIP-BASED COMMUTER BUS SERVICES

Several transit agencies have formed partnerships with companies or with commuters themselves to provide long distance bus service. A few innovative programs in the United States include King County Metro's Custom Bus program based in Seattle, Washington, the San Francisco Bay Area's Golden Gate Bridge, Highway, and Transportation District's Club Bus program, and Massachusetts Bay Transportation Authority's (MBTA) Commuter Bus Program.

KING COUNTY METRO CUSTOM BUS⁸

The Custom Bus program is a partnership between large employers and King County Metro to provide dedicated buses from residential areas or park and ride lots directly to the worksite. The program initiated in 1979 as a partnership between Boeing and Metro. Boeing recognized the need to provide their employees with transportation to their new but transit-deficient location of their corporate headquarters in Everett, Washington. By partnering with Metro, Boeing was able to provide dedicated buses that picked up employees near their residences or at transit hubs for a direct trip to campus. Over the years, other companies partnered with Metro to create their own Custom Bus routes, including Microsoft before it launched its own Connector bus program in 2007. Boeing continues its partnership with Metro to this day.

Employers are required to pay the full cost of the service which includes King County Metro buses and drivers. Metro provides the route planning, drivers, insurance and emergency response and other services. The relationship is advantageous as the employer does not have to manage a contract with a charter bus company to provide the same service, nor does it have to obtain insurance for providing transportation services. Most importantly, the employer can apply for state and federal grants with the help of the transit agency to offset the cost of the service. In order to receive these funds, the buses must be open to the public. Though most of the riders on the Custom Buses are employees of the company funding the service, members of the public do use the service to get to their own employment locations near the funding company's campus.

⁸ Burrell, Julie. "King County Metro Custom Bus Program." Phone Interview by the California Center for Innovative Transportation. 16 July 2009.

The Custom Bus fare is based on miles and hours and covers the cost of long haul services. The employers may choose to subsidize part or all of the employee's fare. Custom Bus routes are treated like other bus routes in King County Metro service, except that the destination is primarily a single employment site.

GOLDEN GATE TRANSIT CLUB BUSES

The Golden Gate Bridge, Highway, and Transportation District (GGBHTD) offers a Club Bus program in Marin and Sonoma counties in northern California. The name refers to a group or "club" of commuters are responsible for organizing and administrating their own commuter service and contracting with a charter company through a competitive bid process. Although GGBHTD began operating its own transit buses in 1972, the club bus program grew due to demand for express bus service adjunct to GGBHTD service. Between 1970 and 1990, GGBHTD approved a 50 percent subsidy for the six clubs administering 15 buses. In the 1990s, the subsidy was reduced to 30 percent, and is currently at 20 percent.⁹ A waiting list of 30 persons is required to start a new club bus.

Riders commit to a month's worth of rides and pay a flat fee based on the cost less the subsidy given by GGBHTD. Fares are collected by an elected "captain" who then pays the private operator; GGBHTD therefore is not involved in the service contract.

The program became quite robust in the late 1970s and 1980s with six different contractors, 15 routes and 27 daily runs. In 1994, 13 bus runs served four commuter clubs with a membership of approximately 405 people. In recent years, however, the program has declined to four lines providing runs to areas where GGBHTD provides limited service.¹⁰ The main challenges facing the program are increased telecommuting and new public transit service. Another aspect of the Club Bus program that has contributed to decreased membership is the fare structure. Members must commit to paying for rides for every weekday in a given month, even if they end up not using the service on a day that they work at home, are on vacation or sick.¹¹

Although the Club Bus program is no longer at its peak, it continues to offer transportation options to locations where frequent fixed-route service could not be justified. For example, one route provides direct service from Novato in Marin County to the UC San Francisco Medical Center, a trip that would not be time feasible on conventional fixed route service. Perhaps by revising its fare structure, advertising the program, or contracting directly with employers who can also subsidize the fare, GGBHTD can promote its innovative program.

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY COMMUTER BUS PROGRAM¹²

Between 1987 and 2009, the Massachusetts Bay Transportation Authority (MBTA) provided operating subsidies to private bus companies participating in the Commuter Bus Program. The original purpose of the program was to provide funding to convince private providers to continue bus operations instead of reducing or eliminating service due to financial hardship. The program enabled MBTA to respond to the need for transit in lower density parts of the region, while relieving the Authority of direct responsibility for operating these services,

⁹ Murray, Gail, David Koffman, and Cliff Chambers. "Strategies to Assist Local Transportation Agencies in Becoming Mobility Managers." *TCRP* 21 (1997). http://onlinepubs.trb.org/Onlinepubs/tcrp/tcrp_rpt_21-a.pdf (Accessed October 2009).

¹⁰ Ibid.

¹¹ Downing, Ron. Golden Gate Bridge, Highway, and Transportation District. E-mail interview by the California Center for Innovative Transportation. July 2009.

¹² Grogan, Mary Ellen. Massachusetts Bay Transportation Authority. E-mail interview by the California Center for Innovative Transportation. October 2009.

which could usually be provided by the private carriers at a lower cost. The program did not contract with private carriers, instead it provided them with a subsidy funded by the Commonwealth of Massachusetts for the operation of publicly available, regularly-scheduled commuter coaches.

The Authority required that the operator design and operate the service, and commit to providing funding for all costs above the MBTA subsidy. The operator had to provide service for a community that was part of the MBTA district but was underserved by MBTA bus routes. However, the program specifically stated that the buses could not compete with services operated by the MBTA. Furthermore, all carriers also had to adhere to ADA regulations. If all the requirements were satisfied, the MBTA provided an annual subsidy limit of \$80,000. The program subsidized only commuter bus service open to the public, employer-based buses were not eligible.

The program was successful, with many of the carriers maintaining service for a number of years. However, with the Massachusetts State budget deficit, inflation and the increased costs of providing service, funding for the program's subsidies was eliminated in fiscal year 2009, though most of the operators have continued to provide service. An example of the rising costs of service is provided by the MBTA. At the beginning of the program in 1987, the maximum subsidy of \$80,000 was equivalent to 65 percent of net cost of service. Today, it is equivalent to 20 percent of net cost of service.

Despite the elimination of the program, the requirements set forth by MBTA for the program are interesting to note. The last Request for Proposals for the Commuter Bus Program issued in fiscal year 2008, provided a funding agreement for three years. It stipulated the contents of the service plan, area of service and transit connections. The service plan had to include a description of the bus route, service schedule, vehicles to be used, fare schedule, projected passenger load and marketing plans. Additionally, the private carrier was required to provide and regularly update a website displaying service information as well as a "Cell Phone Alert System" to allow service delay or change in schedule messages to be sent to multiple users with one call. Proposers also had to be willing to participate in the Executive Office of Transportation and Public Works' Guaranteed Ride Home Program to reassure their customers that transportation will be provided in the event of an emergency.

The RFP was geared toward the convenience of the user, with requirements for limited stops, multi-ride tickets, long-distance routes that connect with other modes of transportation, well-maintained signage and a customer service representative on duty at all times the buses were in service. The privately-provided services were allowed to stop at MBTA bus stops. Additionally, all privately-provided routes were and continue to be listed on the MBTA website.

MBTA acknowledged the importance of privately-provided commuter bus services to serve areas that were not financially feasible for MBTA. By providing subsidies, MBTA could stipulate requirements and conveniences, including no duplication of MBTA transit services and regularly updated schedules posted on the MBTA website.

CONCLUSIONS

High gas prices, the lengthening of commutes due to traffic congestion and economic decentralization, and the ability to use travel time productively has created demand for privately-provided commuter bus services. The next step is for public agencies, including transit and metropolitan planning organizations, air quality management districts and public utilities commissions to formally recognize these types of services, provide guidelines on their operations and reduce difficulty in acquiring permits. Formal recognition will enable more privately-provided commuter bus services to be offered in a way that is complementary to public transit and meet the needs of the commuter population.

3. BENEFITS

High ridership on privately-provided commuter buses has resulted in economic and environmental benefits on both local and regional levels. Riders are drawn to the bus service as it reflects their preferences and commute routes. Transit agencies and local businesses nearby the commute stops have experienced increased consumer activity and the number of drive-alone commute trips forgone has decreased congestion and emission levels.

3.1 COMMUTER PREFERENCE

Studies in the mid-1990s found that the provision of fixed-route, uniform-quality services did not dissuade commuters from driving alone. In the Bay Area especially, commuters exhibit considerable diversity in travel preferences. Some commuters prefer fast, comfortable services and are willing to pay a premium fare. The studies also found that commuters are likely to switch their travel behavior given changes in travel times or comfort levels.¹³

Commuter bus services have long been provided throughout the United States. The express, limited stop service and the comfort amenities have attracted commuters since the 1950s. With long commute distances and rising gas prices, commuters are generally more travel cost conscious regardless of their income. The employer- and fee-based commuter buses offer drive time competitive service, having limited stops, express service to destinations and high occupancy status to allow use of highway high-occupancy vehicle lanes. The added feature that has attracted riders, even well paid professionals, is the provision of on-board wireless internet access. Commutes can be productive as riders have the ability to start or end their work day on the bus. A study conducted by the San Francisco County Transportation Agency (SFCTA), the "Strategic Analysis Report: The Role of Shuttle Services in San Francisco's Transportation System," found through an employer-based commuter bus passenger survey that 92 percent of respondents¹⁴ indicated that they gained productive time by riding.¹⁵

The employer-based commuter bus programs have gained a critical following. Google employees riding the commuter buses list the service as the top employee perk, even over the complimentary cafeterias. The rider survey conducted by the SFCTA Strategic Analysis Report (SAR) found that 14 percent of employees would leave their current employment if the bus service was discontinued.¹⁶ One employee interviewed by the New York Times' article, "Google's Buses Help Its Workers Beat the Rush," stated that losing the bus service would amount to "disaster."¹⁷

¹³ Cervero, Robert. "Deregulating Urban Transportation." *Cato Journal* 5.1 (1985).
<http://www.cato.org/pubs/journal/cj5n1/cj5n1-12.pdf> (Accessed October 2009).

¹⁴ Over 1,000 surveys collected. Responses found to be representative of larger population of employer-based commuter bus riders.

¹⁵ San Francisco County Transportation Authority. "Draft SAR 08/09-2 Strategic Analysis Report: The Role of Shuttle Services in San Francisco's Transportation System." (2009)
http://www.sfcta.org/images/stories/Planning/Shuttles/ShuttleSAR_Draft_PnP111709.pdf (Accessed December 2009).

¹⁶ Ibid.

¹⁷ Helft, Miguel. "Google's Buses Help Its Workers Beat the Rush." *New York Times* [New York] 10 Mar. 2007.
http://www.nytimes.com/2007/03/10/technology/10google.html?pagewanted=1&_r=1 (Accessed October 2009).

3.2 TRANSIT AND LOCAL BUSINESS PATRONAGE

In San Francisco, privately-provided commuter buses stop along corridors that have local public transit connections to ease transfers between services. The commuter buses therefore provide a complementary service to local transit systems, encouraging ridership. Without the buses, riders would most likely be driving to work. One route provided by Genentech travels between Glen Park BART Station in San Francisco to their campus. The stop location encourages riders to take BART or San Francisco MUNI to the stop. The company also provides shuttles from the nearby Caltrain stop to the campus, further encouraging employees to ride transit. This practice is maintained by the other private providers as well.

In the Bay Area, the stop locations are typically adjacent to retail or service establishments, stimulating economic activity when riders patronize the merchants. The SFCTA SAR rider survey results indicated that 63 percent of respondents stop at local businesses on their way to or from the commuter bus stop.¹⁸ For example, Yahoo bus riders organize happy hour events at establishments nearby the stops in San Francisco. Bauer's Wi-Drive received permission to stop in shopping malls and strip malls for its suburban residential stop locations. 24 Hour Fitness reported an increase in memberships after granting Bauer's permission to use their parking lot and providing promotional literature that was stocked on the buses. This activity may not occur if riders drove to work for lack of a viable transit option.

Though ridership may increase on local transit systems, transit agencies may be negatively impacted by the commuter buses impeding transit access to the stop. Some transit agencies have mitigated any disruptions by working with the employer- and fee-based commuter bus services on establishing stop locations. King County Metro in Seattle, Washington, does not allow Microsoft Connector buses to stop in any transit stop, though the agency does lease a bay at a transit center to Microsoft. Instead, the Connector has received permission to stop at three-minute loading zones and parking lots in neighborhood commercial areas.

3.3 CONGESTION AND AIR QUALITY MITIGATION

The employer-based commuter buses provided by Genentech, Google, Microsoft and Yahoo! have made the largest impact in reducing drive alone commuting out of all transportation demand management programs offered. Microsoft experienced a decrease in employees driving alone after the Connector service was introduced in 2007. Before the Connector started, the mode split was 66-34 single occupancy vehicle to alternative modes; In 2009, the campus achieved a 62-38 mode split, a change of four percent. Approximately 1,700 Microsoft employees ride the shuttle on a daily basis, or 3,400 roundtrip.¹⁹ In the Bay Area, ridership of the Genentech, Google and Yahoo! long distance buses amounts to approximately 2,600 employees a day or 5,200 roundtrip. Over the course of the year, the ridership is close to one million, a considerable amount that is comparable to that of the smaller public transit agencies in the Bay Area, including City of Vacaville Transit Services and Western Contra Costa Transit Authority (WestCAT).²⁰

¹⁸ San Francisco County Transportation Authority. "Draft SAR 08/09-2 Strategic Analysis Report: The Role of Shuttle Services in San Francisco's Transportation System." (2009) http://www.sfcta.org/images/stories/Planning/Shuttles/ShuttleSAR_Draft_PnP111709.pdf (Accessed December 2009).

¹⁹ Microsoft. "The Microsoft Connector Fact and Figures." July 2009.

²⁰ Metropolitan Transportation Commission. Programming and Allocations Committee. *Report on TDA Triennial Performance Audits*. 2009. http://apps.mtc.ca.gov/meeting_packet_documents/agenda_1337/4a_TDA_Perf_Audits.pdf (Accessed January 2010).

Ridership on the bus services for all the Bay Area companies interviewed produces substantial benefits region-wide. The SFCTA SAR found through its benefit-impact analysis that the employer-based commuter bus services have “significant and widespread benefit, particularly for congestion and air quality.”²¹

In terms of congestion, the SAR found that the employer-based commuter bus programs collectively reduce 327,000 solo vehicle trips to and from the employment site per year. When considering the number of participants in the bus program and their respective commutes avoided, approximately 20 million vehicle miles traveled (VMT) are reduced on a yearly basis.

The air quality benefits from reducing VMT can be measured in terms of decreases in the levels of carbon dioxide (CO₂) and other components of vehicle exhaust emissions. The SAR found that employer-sponsored commuter bus programs reduced CO₂ emissions by 8,000 to 9,500 tons per year (assuming range of bus manufacturing dates, in-vehicle emissions control systems, and nitrous oxide filters). Though motorcoaches also emit CO₂ when running or idling, the amount produced is considerably less than what would be generated by the riders driving to work instead. The American Bus Association also found that motorcoaches have the lowest carbon dioxide emissions, producing an average of 50 grams of CO₂ per passenger mile. In contrast, the single occupancy vehicle generates 378 grams of CO₂ per passenger mile. CO₂ emissions from various modes are listed in Table 1.

Table 1. Average CO₂ Emissions by Mode²²

Mode	Average Carbon Dioxide Emissions ^a
Motorcoach	50
Vanpool	97
Commuter Rail	164
Carpool (2 person)	189
Light Rail	201
Domestic Air Travel	234
Transit Bus	308
Single Occupancy Vehicle	378

^a Grams of emissions per passenger mile (g/pass-mi).

Figures for motorcoaches are based on averages for different industry segments (charter/tour/sightseeing versus commuter/airport/intercity fixed route service). For the other public modes, averages are based on the range of results from individual transit agencies in the National Transit Database (NTD) database. For private autos the averages are based on US fleet average fuel economy of 22.5 MPG (Source: Bureau of Transportation Statistics (BTS) Table 4-23: Average Fuel Efficiency of U.S. Passenger Cars and Light Trucks).

As for other tailpipe emissions, including nitrogen oxides (NO_x), reactive organic gases (ROG) and particulate matter (PM), the bus programs reduced emissions ranging from one to seventeen tons per year compared to the scenario where all the passengers drove alone to and from their employment site.²³

²¹ San Francisco County Transportation Authority. “Draft SAR 08/09-2 Strategic Analysis Report: The Role of Shuttle Services in San Francisco’s Transportation System.” 2009

http://www.sfcta.org/images/stories/Planning/Shuttles/ShuttleSAR_Draft_PnP111709.pdf (Accessed December 2009).

²² M.J. Bradley & Associates, “Updated Comparison of Energy Use & Emissions from Different Transportation Modes,” American Bus Association, October 2008, Table 1.1, p. 4.

<http://www.buses.org/files/2008ABAFoundationComparativeFuelCO2.pdf> (Accessed October 2009).

CONCLUSIONS

Though transit agencies provide service to job and residential areas outside of the central business district, they are limited in the amount of coverage that can be cost-effectively supplied. Employment decentralization to low density areas with easy freeway access are not well matched to traditional bus and rail lines as travel patterns between home and work are generally indirect, dispersed and long distance. Transit services that can mimic these travel patterns at times competitive to driving have attracted commuters and play an important role in filling the gaps in the regional transit system. Whether this flexible and express service is provided by a private or public entity should not make a difference if the traveling public has a viable transit option that encourages them to leave their car at home for routine commuting trips. In the Bay Area, private commuter bus services play an important role on the regional level and their astute routing and business standards have led to significant reductions in traffic congestion and emissions. Additionally, they have stimulated use of local transit and patronage of local businesses that may not have occurred if riders drove to work for lack of viable commuter bus options.

²³ San Francisco County Transportation Authority. "Draft SAR 08/09-2 Strategic Analysis Report: The Role of Shuttle Services in San Francisco's Transportation System." 2009.
http://www.sfcta.org/images/stories/Planning/Shuttles/ShuttleSAR_Draft_PnP111709.pdf (Accessed December 2009).

4. CHALLENGES

Though privately-provided commuter bus services have operated in one form or another for the past 50 years, the same challenges to their long-term viability have persisted. The main challenges include market entry and competition, regulatory constraints and financial hurdles. Where privately-provided commuter bus service have been successful are in markets that are not cost effective for transit service due to the low density of both riders and land use.

4.1 MARKET ENTRY AND ENDURANCE

One challenge is identifying where privately-provided service will best serve commuter needs. Successful operations understand where their customers are located and how to moderate their competition.

Privately-provided commuter bus services generally operate best in specialized markets: traditional central business districts (CBD) with congested highway access and high parking costs; large employment sites in low-density areas that require long commutes; or a combination of the two. In the Bay Area, a combination market exists. A large number of commuter buses come into San Francisco, the Bay Area's CBD. Commuter services into San Francisco are mainly provided by transit agencies, including the Alameda-Contra Costa Transit District, the Bay Area Rapid Transit District, Golden Gate Transit and the San Mateo County Transit District. Additionally, the dispersed employment locations have created commute sheds with distances typically between 20 to 30 miles. With limited transit access to these areas, the suburb-to-suburb or city-to-suburb market is largely untapped, and more difficult to define when both the origin and destination are not in centralized locations.

Employer-based privately-provided commuter bus services have access to employee zipcode data can therefore build routes between areas with high employee residential densities and their suburban campus. Fee-based services can access data on commute sheds to build long-distance routes. Bauer's Wi-Drive has established this type of service, with routes between San Francisco and Silicon Valley employment areas that are on average 30 miles. One of Bauer's strategies is to locate stops near large Silicon Valley employers that do not offer their employees a commuter bus service. As mentioned previously, one route with a stop in front of the Cisco campus has ridership that is mainly composed of the company's employees living in San Francisco.

Market entry is further limited by operational issues. A few concerns public transit agencies have raised are directed towards the use transit stops or hubs for loading or idling, creating conflicts with transit vehicles and safety protocols. The providers have generally been responsive to agency requests to modifying their route and stop locations. However, issues still remain for long-term operations of the services and San Francisco in particular is considering various options to reduce conflicts including shared stops, dedicated shuttle zones and shared parking for layovers.²⁴ City residents of the neighborhood streets along the commuter bus routes have also raised concerns over noise and safety impact of large coach buses traveling down narrow local streets. Again, the private operators responded by changing their routes to run along major corridors. In order to avoid conflicts, the private operators and public officials should collaborate on route and stop locations before service is initiated.

²⁴ San Francisco County Transportation Authority. "Draft SAR 08/09-2 Strategic Analysis Report: The Role of Shuttle Services in San Francisco's Transportation System." 2009
http://www.sfcta.org/images/stories/Planning/Shuttles/ShuttleSAR_Draft_PnP111709.pdf (Accessed December 2009).

Transit agencies may create obstacles for fee-based services, either by preventing private operators from providing service or offering subsidized fares for commuter services against which private operators cannot compete. For example, Hartford, Houston and Los Angeles each had a sizeable network of private, unsubsidized commuter bus services in the mid-1980s. The success of the service prompted new entrants into the market, including transit agencies. The transit agencies' competitive service offered at subsidized fares hindered further expansion of private services and by 1995, many of the private providers had gone out of business.²⁵ Transit agency fares reflect government provided subsidies, sometimes at 50 percent or more, and are difficult to compete against even if the private provider offers a higher level of service. These subsidies are for the most part only available to transit agencies. If private bus operators are providing a commuter service that is complementary to public transit and that is out of agency purview in terms of distance or destination, then funding should be considered. In the long-run, access to public funds will ensure that the private operators can continue providing service at affordable fares as well as developing new routes.²⁶ Ultimately, funds should help provide viable transit services for the public regardless of the entity providing the service.

4.2 COST-EFFECTIVENESS

Achieving a cost-effective fee-based commuter service is a difficult objective for private operators. Generally, commuter services generate demand in one direction and operate only during morning and evening peak hours, leaving drivers idle between runs. Commuter services that use vehicles for only a few hours a day make only modest progress towards capital recovery, especially for new or fairly new buses.

However, operators that are able to successfully integrate commuter service with charter or other contract service can offset costs. For example, Bauer's Wi-Drive route from San Francisco to Silicon Valley doubles as a connector route from the Fremont BART station to Silicon Valley between the morning and evening peak runs. Bauer's therefore lowers its hourly costs and labor is more cost-effective as drivers are productive between peak hours.

4.3 LABOR PROTECTION REGULATIONS

In the long-run, sustained operations of privately-provided commuter bus services, transit agencies and private operators may have to collaborate to jointly provide commuter service or more formally complement each other's services. If pursuing a contracting partnership, labor protection regulations, including Section 13(c) of the Federal Transit Act, have to be considered. Under Section 13(c), an agency that receives federal mass transit funds must protect all covered mass transit employees.²⁷ Section 13(c) was originally included as part of the federal transit legislation in 1964 to ensure the collective bargaining rights in the public acquisition of private systems and to protect employees who might be harmed by technological innovations funded by federal grants.

Transit agencies argue that the regulation restricts efforts to achieve benefits through partnership efforts, especially if transit agencies want to incorporate contracted services such as commuter routes. Contracting

²⁵ Cervero, Robert. "Fostering Commercial Transit: Alternatives in Greater Los Angeles." *The Reason Foundation* 146 (1992). <http://reason.org/files/8039a618f197e2c8bbfe21b2ac4cd285.pdf> (Accessed October 2009).

²⁶ Giuliano, Genevieve and Roger F. Teal. "Privately Provided Commuter Bus Services: Experiences, Problems and Prospects," in *Urban Transit: The Private Challenge to Public Transportation*. C.A. Lave, ed., Ballinger, Cambridge, Mass., 1985, pp. 151-179.

²⁷ U.S. Department of Labor. "Mass Transit Employee Protections, (Section 13(c)) of the Federal Transit Act." <http://www.dol.gov/compliance/laws/comp-masstransit.htm> (Accessed October 2009).

commuter bus services can reduce operating expenses as contracted drivers have lower wage rates and less costly benefit packages.²⁸ More flexibility in labor agreements is one solution that several transit agencies have implemented. New Jersey Transit's labor agreement enables all newly inaugurated service and ten percent of ongoing services to be contracted.²⁹ This flexibility can allow private transportation companies to provide long distance service for transit agencies cost-effectively.

4.4 REGULATORY PROCESS

Private bus operators are licensed and regulated by the California Public Utilities Commission (CPUC). Fee-based services apply for a Passenger State Corporations (PSC) permit while free employer-based services are classified as Charter-Party Carriers (TCP). The application process for both is relatively straightforward and usually takes three months for the CPUC to approve. The majority of applications are accepted.

As part of the certification process, the PSC applicant has to include a list of all public transit agencies whose jurisdictions the commuter bus will be traversing. A copy of the application must be sent to each of the transit operators listed and a certificate of service has to be presented with the submitted application showing that the transit agencies have received notification. Transit agencies may file protests against some aspect of the proposed service. In the case of Bauer's Wi-Drive service, several transit agencies filed protest for reasons including competition and interruption of transit operations at the stops identified. To resolve the issues, the application process took seven months to be approved, four months longer than usual. Bauer's modified its route structure and stop locations to gain approval from the agencies.

The PSC application process for commuter bus service can be overwhelming, especially if the agencies claim unfair competition. The applicant has to prove that the overall quality of service in the region will materially improve. Any of the reviewers can block entry if forceful enough or if the applicant does not make the appropriate changes to their route structure to accommodate the protesting agency's demands. This process, though trying to protect transit agency jurisdiction, can impede innovation and the emergence of privately-provided transportation services.

4.5 FUNDING OPPORTUNITIES AND CONSTRAINTS

Privately-provided commuter bus services are currently ineligible for public funds for a variety of reasons. Employer-base services that are available only to employees not the general public, are not eligible for public funds. Fee-based services are open to the public but since they are provided by a private company, they are for the most part ineligible to receive public funds unless they partner with a public agency. Despite being for-profit, the cost to providing the service is high and subsidies are needed for the longevity of long-distance commuter services at affordable fares.

Though private transportation companies are eligible for some federal funding, they have to partner with a public agency to receive the funds. The Federal Transit Administration's Buses and Bus Related Equipment and Facilities programs (5309, 5318 grants) allocates funds on a discretionary basis for new and replacement buses, related equipment and facilities. Eligible recipients are states, municipalities, public agencies certain public

²⁸ Murray, Gail, David Koffman, and Cliff Chambers. "Strategies to Assist Local Transportation Agencies in Becoming Mobility Managers." *TCRP* 21 (1997). http://onlinepubs.trb.org/Onlinepubs/tcrp/tcrp_rpt_21-a.pdf (Accessed October 2009).

²⁹ Ibid.

corporations, boards and commissions established under state law. However, private companies engaged in public transportation and private non-profit organizations are eligible sub-recipients if they are included in a program of projects submitted by the designated public authority acting as the direct recipient of a grant.³⁰

The FTA Large Urban Cities (5307) grant allocates federal resources to urbanized areas (population over 200,000). Qualified projects are planning and capital investments in bus and bus-related activities, construction of maintenance and passenger facilities. Operating assistance is not an eligible expense. The regional metropolitan planning organization (MPO) works with the region's transit operators to determine how these funds are prioritized. There are currently 22 operators in the Bay Area that request FTA Section 5307 funds.³¹ Since the funds do not sufficiently cover transit agencies needs, distributing them to private transportation companies could be a sensitive issue, detracting from the share available to transit agencies.

In the Bay Area, locally-funded grants do allow private companies to apply directly without partnership with a public agency, although eligibility relies on a few service requirements. Transportation Fund for Clean Air (TFCA) from the Bay Area Air Quality Management District (BAAQMD) provides grants to implement cost-effective projects in the Bay Area that will decrease motor vehicle emissions and improve air quality. Non-public entities can apply for TFCA grants, directly or via a public agency, to implement certain clean air vehicle projects only. Private commuter bus operators can apply as either a shuttle program or as a regional rideshare service. If applying as a shuttle program, funds are granted for routes to or from a rail station, airport or ferry terminal. The destination cannot be a single employer's campus; two or more employers must be served by the shuttle. For example, a commuter bus that picks up commuters from the Glen Park BART Station in San Francisco and transports them to a suburban office park with multiple employers may be eligible. Additionally, the applicant must submit documentation to the transit agencies along the route demonstrating that the route does not duplicate or conflict with existing transit service.³² These funds are more suitable to fee-based privately-provided commuter bus services.

The other option for private commuter bus operators is to apply as a regional ridesharing project. Ridesharing service must be composed of riders from at least three Bay Area counties. However, applications for projects that provide a direct or indirect financial transit or rideshare subsidy exclusively to employees of the project sponsor are not eligible.³³

The policies and conditions of most of the funding sources do not encourage private companies to provide commuter bus services. As highlighted earlier, privately-provided commuter bus services do provide valuable long distance with measureable decreases in emissions and congestion. The Massachusetts Bay Transportation Authority (MBTA) found privately-provided commuter bus services to be complementary to their own service, and gave operating subsidies to encourage private operators to continue providing commuter bus services when many were reducing or eliminating service due to financial hardship. Revising federal, state and local grant requirements to include provisions for privately-provided commuter services may encourage more companies to enter into the market to provide options for commuters not traveling to areas conveniently served by public

³⁰ Federal Transit Administration. "Grant Programs." http://www.fta.dot.gov/funding/grants_financing_263.html (Accessed October 2009).

³¹ Metropolitan Transportation Commission. "Federal Transit Administration (FTA) Funding Sources, Programs, and Planning." <http://www.mtc.ca.gov/funding/FTA/> (Accessed October 2009).

³² Transportation Fund for Clean Air (TFCA) Regional Fund Fiscal Year 2009//2010, Bay Area Air Quality Management District (2009). http://www.baaqmd.gov/Divisions/Strategic-Incentives/Transportation-Fund-for-Clean-Air/~/_media/AED74C09715C4F36A65E70831FE3A822.ashx (Accessed October 2009).

³³ Ibid.

transit. Some requirements may be that the company complement, not directly compete with, local transit services or provide routes that are 20 miles or greater in length traveling to low-density suburban locations.

4.6 DESIGNATION

Though commuter bus services, both employer-based and fee-based, are not new types of programs, the proliferation of the services in recent years plus their desire to be more formally recognized has called into question how to correctly classify the services. The employer-based services do not operate for profit and are offered as part of the employee benefit package to reduce drive alone rates and assist the company in recruiting and retaining a talented workforce. Fee-based services do operate for profit, and their designation is perhaps harder to define. By charging a fare and being open to the general public, they act more like a privately-run transit system.

Employer-based commuter bus programs are part of the company's broader transportation demand management (TDM) program. TDM is an all-inclusive term given to a variety of measures used to improve the efficiency of the existing transportation system. TDM products and services include encouragement to use alternatives to driving alone such as ridesharing services (carpools and vanpools), transit, biking, and walking.³⁴ King County Metro's Custom Bus is part of the Washington State Department of Transportation Commute Trip Reduction (CTR) program which seeks to reduce traffic congestion, air pollution and petroleum consumption through employer-based programs.

In the San Francisco Bay Area, the employer-based commuter buses are not currently considered for ridesharing funds under the 511 Regional Rideshare Program. 511 offers incentives for vanpool creation, including free wireless internet access and \$300 to \$900 in gas cards for new vans, and additional gas cards to help cover the fare of a lost participant.³⁵ No particular law or code prevents employer-based commuter bus services from receiving Bay Area rideshare subsidies. However, eligibility is currently defined for carpool and vanpools only, thus limiting employer-based commuter buses, which provide similar service although on a larger scale, from receiving funds.

Fee-based services may need to be designated as a private transit service in order to remain viable. Though private companies operate on a for profit basis, subsidies would be needed to operate the buses. As MBTA showed, the costs for running long distance express bus services have gone up considerably over the years, based on the increasing cost of buses, technologies and amenities. Ultimately, privately-provided commuter buses should be formally recognized in the regional transportation system, regardless of their designation.

CONCLUSIONS

Transit agencies have different opinions about privately-provided commuter bus services. Some, including MBTA, collaborate with private operators for service to low density areas while relieving the transit agency of operational responsibility for the services. MBTA provides example to its peer agencies that are not as open to collaboration with private companies. While a few privately-provided commuter bus operations do not pose a substantial threat or interference to transit operations, the proliferation of commuter services in the Bay Area

³⁴ Victoria Transport Policy Institute. "Ridesharing TDM Encyclopedia." <http://www.vtpi.org/tdm/tdm34.htm> (Accessed October 2009).

³⁵ Metropolitan Transportation Commission. "Vanpooling." http://rideshare.511.org/vanpooling/vanpool_incentives.asp (Accessed October 2009).

raise shows the need for increased public-private collaboration. The benefits from the commuter services in terms of responding to commuter needs, promoting local transit use and decreasing congestion and emissions are substantial enough to warrant formal consideration in the regional transportation system.

With open dialogue and cooperation, the privately-provided commuter buses, both employer-based and fee-based services, can operate in a way that enhances transit and local communities. Transit and private commuter bus providers can work together to determine the best route and stop locations to facilitate all operations and ease the application process with the CPUC.

5. COMMUTER BUSES AND VANPOOLS

Commuters have other alternative travel options besides privately-provided commuter buses and conventional transit. Carpool and vanpools also offer a flexible service to and from the worksite. Over the years, vanpools in particular have been increasingly encouraged through public subsidy and incentive programs as the preferred commuter option for one-way trips exceeding twenty miles, where public transit is inadequate and congestion or parking problems exist.

With the ideal trip length being twenty miles or more, and service most suitable in areas with congestion and few viable transit options, the market for both vanpool and privately-provided commuter bus services are similar, with a few key distinctions. The main differences have to do with ridership and drivers. To be cost-effective, commuter buses typically need two to three times the density of travel demand. Vanpools need seven to twelve passengers and can serve low density areas. The low ridership requirement also allows for a more personalized service, with 20 to 60 percent of vanpool riders picked up and dropped off at home.³⁶ As the vans are driven by commuters, operational costs are lower than that of services with hired drivers.

Vanpools are formally recognized as a separate non-rail mode making them eligible for FTA Urbanized Area Formula (5307) Funds. A stipulation for receiving funds is that vanpool programs are subject to the same requirements identified in the federally required National Transit Database (NTD) reporting system. The reported revenue miles and passenger miles are used in a formula allocation of the urbanized area formula funds.³⁷ Each vanpool revenue mile (the mileage accumulated when passengers are in a van) generates eligibility for a certain amount of federal aid. Based on the national NTD totals, Congress each year develops unit values to determine what amounts are used in the formula to apportion funds.³⁸ Privately-provided commuter bus services should receive the same designation, being a service similar to vanpools.

Vanpool funds are received by the public agency coordinating ridesharing programs. For example, the King County Metro Rideshare Operations program uses 5307 funds to provide vans, rider support services, maintenance, insurance, fuel, tires and training.³⁹ In the Bay Area, the Metropolitan Transportation Commission (MTC) runs a regional rideshare program and provides ridematching, carpool and vanpool assistance and subsidies for new vanpools with funding from the Federal Highway Administration's Congestion Mitigation Air Quality program, the Bay Area Air Quality Management District's Transportation Fund for Clean Air and county congestion management agencies.⁴⁰ 511 Rideshare does not purchase vans; vanpool riders or their employers buy or lease a van themselves. Using funding sources other than 5307 funds for vanpools may be more for political than logistical reasons. As the amount of 5307 funds allocated to the Bay Area is not enough to cover transit operator needs, redistributing the funds to include vanpools is a sensitive issue especially if distributed based on performance. As vanpools generate high passenger miles with low operating expenses, the program

³⁶ Evans, John E., and Richard A. Pratt. *Traveler Response to Transportation System Changes: Chapter 5—Vanpools and Buspools*. Rep. no. 95. Washington, D.C.: Transit Cooperative Research Program-Transportation research Board, 2005. http://onlinepubs.trb.org/Onlinepubs/tcrp/tcrp_rpt_95c5.pdf (Accessed October 2009).

³⁷ VPSI. "National Transit Database." <http://www.vpsiinc.com/Home/SubMenu.asp?MMID=3&SMID=35&OID=261> (Accessed October 2009).

³⁸ Ibid.

³⁹ King County Metro. "Metro Rideshare Operations." <http://transit.metrokc.gov/tops/van-car/van-car.html> (Accessed October 2009).

⁴⁰ Metropolitan Transportation Commission. "About 511 Regional Rideshare Program." http://rideshare.511.org/global/about_rideshare.asp (Accessed October 2009).

would generate the most funds, detracting from the share available to transit agencies. As vanpool ridership grows, 5307 funds for the program may be pursued in the future.⁴¹

Vanpools provide a valuable service in the commuter market. However, this type of service may not be convenient for all riders and professions when workloads do not allow consistent start and end times every day. Furthermore, when one rider opts out of the vanpool, the remaining riders have to cover the cost of the empty seat, increasing their monthly fee unless they find a replacement.

Commuter buses are a ridesharing solution that can allow schedule flexibility and fixed fares. Most of the privately-provided commuter bus programs in the Bay Area offer two to three runs in both the morning and evening peaks. Riders are able to retain a flexible schedule depending on workload and meeting schedules. For fee-based services, fares do not fluctuate if a passenger decides to opt out of taking the bus. Buses are also driven by a professional, eliminating the need for an employee to drive. Many of transportation managers of the employer-based commuter bus programs remarked that vanpool programs are difficult to start as the question of who will be driving is always raised as an issue. However, they do help start vanpool or carpools for employees living in areas with insufficient density for a bus. The complete system therefore is comprised of a network of buses, vanpools and carpools.

Large cities are more ideally suited to commuter bus service rather than vanpools due to residential density and parking shortages. In San Francisco in particular, finding an on-street parking space for a van is difficult. Providing a commuter bus instead allows for ridesharing without putting employees through the hassle of hunting for a parking space every weeknight.

Privately-provided commuter buses and vanpools each have their strengths but their limitations allow cooperative operations. Privately-provided commuter buses are well suited to areas with high rider density going to low density employment sites with trip lengths averaging 20 miles or more. Vanpools are valuable in providing a cost-effective and energy-efficient commuter travel option between low density areas.

⁴¹ Heinrich, Susan. "511 Rideshare." Phone Interview by the California Center for Innovative Transportation. October 2010.

6. PUBLIC AGENCIES AND THEIR ROLES

The continued success and likely growth of privately-provided commuter programs in the Bay Area will require more formal recognition by public agencies. Private companies and public agencies can work collaboratively to implement policy that mitigates direct competition to ensure both sectors can provide economically efficient and viable services in their respective niches. The majority of the privately-provided commuter bus services in the Bay Area travel from residential areas, in both cities and suburbs, to low density employment sites of one or more companies. As such, little overlap or competition exists between them.

6.1 PUBLIC TRANSIT AGENCY ROLE

The continued decentralization of metropolitan areas and changes in family and work patterns are steadily eroding traditional markets for transit and limiting opportunities for service expansion. Privately-provided commuter buses have been successful in the Bay Area mainly due to their appropriate response to travel demand. Providing express service from city and suburban areas low density suburban employment locations on a comfortable bus equipped with wireless internet access understands exactly what highly-skilled commuters need in terms of travel time, quality of service and productivity.

Transit agencies have used innovative approaches to provide peak period long distance service, including the use of part-time drivers, peak period service reductions and selective fare increases. Transit agencies have high labor costs due to employer-paid benefits and high wage rates relative to drivers of privately-provided commuter service. Additionally, the peak period, long-distance only feature of commuter bus service requires deadheading and unproductive use of both labor and vehicle. Private operators are able to provide peak period express services at lower cost due to the lower wage rates as well as combining commuter service with other charter or contract service. In light of significant transit agency budget shortfalls, costs for long distance express service are difficult to justify. SamTrans in 2009 cut several express routes between San Mateo County and San Francisco to bridge its budget gap.

As an alternative to providing long distance express services themselves, transit agencies can effectively promote privately-provided commuter bus service by the following actions:⁴²

1. Encourage and facilitate private sector operations: Instead of a contracting partnership that may have 13(c) implications, the transit agency can encourage the private sector to respond to commuter demands and provide new types of services. This encouragement and facilitation can be accomplished in a variety of methods including:
 - Working with providers to set rules on stop locations, route structure and safety to guarantee smooth operations of both public and private service
 - Acting as a broker by passing along requests for worksite service to a private bus company
 - Actively marketing privately-provided commuter services as part of the consumer's travel options
 - Leasing new or extra equipment to private companies that lack the capital to purchase new buses

⁴² Teal, Roger F., Genevieve Giuliano, and Mary E. Brenner. "Transit Agency Use of Private Sector Strategies for Commuter Transportation." *Institute of Transportation Studies UC Irvine* (1983).
<http://www.its.uci.edu/its/publications/papers/ITS/UCI-ITS-WP-83-1.pdf> (Accessed October 2009).

- Renting space at bus transfer terminals and park and ride lots to private commuter service. Renting space can be made more attractive to companies if transit agencies include marketing of the services that are publically accessible
2. Contract with private operators: The transit agency can contract with a private provider for fixed route or long distance commute bus service. Some private operators are able to combine their commute service with their charter business, utilizing labor and vehicles throughout the day and reducing the unit cost of service. Capital costs may be lower for private operators but the difference may be negligible compared to grants transit agencies receive for offsetting capital and maintenance costs.

A potential issue with contracting with private operators is Section 13(c). If a transit agency contracts a route to a private provider, it cannot eliminate jobs as a result of the change. Therefore private operators can be most easily contracted for service expansion. The labor protection provisions in 13(c) do not apply to service expansion as it does not affect current employees. However, some transit union contracts have limitations on the amount of contracting permitted.

Encouraging and facilitating private sector operations rest on formal recognition of the service as complementary to conventional transit. At the very least, public transit agencies, regional planning agencies and private providers must be transparent when communicating and collaborating. As more companies engage in commuter services, either as an employee benefit or for profit, agencies should consider addressing the service as a legitimate program that reduces congestion and emissions on their local streets and on the freeways that cut through their communities. Increasing the visibility of private operators meets the needs of particular market segments outside the agency's purview. Fixed-route transit service cannot serve all needs in a decentralized economic landscape, and encouraging private sector involvement can provide flexible transportation services that respond to customer preferences. In private industry terms, public transportation agencies would be diversifying and broadening their missions to effectively facilitate their customers' mobility. As mentioned earlier, the Massachusetts Bay Transportation Authority (MBTA) provided operating subsidies to private bus companies to encourage the private operators to provide commuter bus services. The program enabled the MBTA to respond to the need for transit service in lower density parts of the region, while relieving the Authority of the direct responsibility for operating these services.

Another good example of encouraging and facilitating private sector operations is shown through the King County Metro and Microsoft partnership. King County Metro considers commuter bus service by Microsoft's Connector complementary to public transit service.⁴³ Compared to Metro ridership, around 365,000 average daily boardings, the number of commuters taking the Connector is not a significant reduction in their ridership.⁴⁴ The Connector averages a daily ridership at 3,400 over 55 routes or 0.9 percent of Metro's daily boardings.⁴⁵ Microsoft's transportation staff worked with King County Metro to integrate Metro and Microsoft Connector service to form a cohesive network. If good public transit service is already present in the proposed corridor, Microsoft will not provide Connector service and employees are encouraged to ride transit using their universal

⁴³ Long, Katherine. "Microsoft Connector: 19 routes, 53 buses later." *The Seattle Times* [Seattle] 12 Apr. 2009. http://seattletimes.nwsources.com/cgi-bin/PrintStory.pl?document_id=2009025535&zsection_id=2003750725&slug=msshuttle12m&date=20090412 (Accessed October 2009).

⁴⁴ King County Department of Transportation. "Metro estimates biggest ridership gain in 10 years." 23 Jan. 2008. http://www.kingcounty.gov/transportation/kcdot/NewsCenter/NewsReleases/2008/January/nr012308_ridership.aspx (Accessed October 2009).

⁴⁵ Microsoft. "The Microsoft Connector Fact and Figures." July 2009.

transit pass, offered free by Microsoft. However, if service is slow or inconvenient in the corridor, a Connector route may be considered.⁴⁶ Microsoft also participates in monthly meetings with the seven transit agencies in the region, fostering transparency and collaboration. Microsoft's participation also indicates that the agencies consider the commuter service as legitimate and valuable in the region.

The Connector service does not compromise King County Metro transit operations. Connector buses are not allowed to use on-street transit stops, but are allowed to use a bay at Metro's bus transit center through a lease agreement. This arrangement was established before the Connector service was initiated, showing that Microsoft was upfront with their service intentions. Microsoft works with businesses and churches to establish stops in white curb zones and parking lots and have been successful in procuring these partnerships.

By diversifying the services in their retinue, Metro acts as a mobility manager, a term used by the Federal Transit Administration (FTA) and other practitioners.⁴⁷ Mobility management involves fostering and organizing a network of diverse transportation services and providers to satisfy customer needs, moving beyond establishing and operating traditional fixed route transit systems. This means incorporating vanpools, carpools and commuter services provided either through public agencies or private companies into the agency's transportation network. The role of the transit agencies therefore shifts from solely being a transit provider to one that acts similar to a travel agent by brokering customer needs with a variety of service providers and providing one-stop customer information on all available travel services.⁴⁸

Like Metro, Bay Area transit agencies can take actions to more formally support private companies providing commuter bus services. The partnerships can be mutually beneficial. Acting as a broker for transportation requests or simply acknowledging privately-provided service as another transit alternative are steps to address the mobility needs of the regional commuter population. Private companies benefit from greater visibility as well as the opportunity to partner with agencies to apply for federal CMAQ funds to help subsidize costs. CMAQ funds do not decrease the amount of funds available to transit agencies, and are applicable to privately-provided commuter bus services as they provide congestion and air quality relief similar to carpool, vanpool and last mile shuttle programs.

6.2 LOCAL AND REGIONAL AGENCIES ROLES

Local governments, including cities and counties, and regional agencies, including metropolitan planning organizations and air quality management districts, are responsible for creating, maintaining or regulating most of the physical environment for transit. Their purview includes the road network, operational guidelines for transportation, land use patterns and development plans.

Local agencies maintain regulations that directly relate to the institutional environment in which most public transportation organizations function, including road weight restrictions, curb space regulations and noise mitigation. In San Francisco particularly, the intercity coach bus models used by the private bus operators have elicited noise and safety complaints from the public living along the routes that travel down narrow streets. City

⁴⁶ Frosh, Lynn, Puget Sound Transportation Services Manager. "Microsoft Connector." Telephone Interview by the California Center for Innovative Transportation. 29 June 2009.

⁴⁷ Federal Transit Administration. "Mobility Management Resources." http://www.fta.dot.gov/planning/metro/planning_environment_2366.html (Accessed October 2009).

⁴⁸ Murray, Gail, David Koffman, and Cliff Chambers. "Strategies to Assist Local Transportation Agencies in Becoming Mobility Managers." *TCRP* 21 (1997). http://onlinepubs.trb.org/Onlinepubs/tcrp/tcrp_rpt_21-a.pdf (Accessed October 2009).

agencies can work with the transit agency and private operators to create route and stop guidelines for current and new services. As both employer- and fee-based operations become more commonplace, operating guidelines will have to be created to mitigate any noise, safety and operational impacts to the public. Creating guidelines with input from all stakeholders is the most effective manner in reaching consensus.

On both the local and regional level, funding can be set aside to pursue innovative strategies that reduce drive alone trips. This funding can be used toward service, technologies and transportation demand management programs, including privately-provided commuter buses. These funds can be garnered through impact fees on development, special sales taxes or other assessments. Counties in California have used sales taxes to build high occupancy vehicle lanes, create a trust fund for paratransit and support general transit services. On a regional level, a portion of federal and state funds can be allocated specifically for projects that improve travel choices in congested corridors or reduce greenhouse gas emissions.

On a broader level, local and regional agencies can promote privately-provided commuter buses, both employer- and fee-based, as well as other rideshare and transportation demand management strategies, by requiring trip reduction programs for all companies with more than 50 or 100 employees.

As the metropolitan planning organization and the air district for the Bay Area, the Metropolitan Transportation Commission (MTC) and the Bay Area Air Quality Management District (BAAQMD) can encourage privately provided commuter bus services on a regional level. Encouraging and incentivizing private companies to provide commuter buses can help to accomplish some strategic goals, including:

- Improving the mobility of suburban commuters and responding to suburban needs
- Providing more customer friendly service that responds to commuter demands
- Increasing the effectiveness of the entire transit program
- Supporting federal, state and local congestion and air quality regulatory policies, including the Clean Air Act's Congestion Management amendment; Assembly Bill 32, California Global Warming Solutions Act of 2006; and the Sustainable Communities Strategy for Senate Bill 375, Redesigning Communities to Reduce Greenhouse Gases

MTC can incorporate privately-provided commuter bus services into regional transportation program and encourage more employer- and fee-based commuter bus services. As private companies are not able to apply for federal or state funds without partnering with a public agency, formally recognizing their contribution to the region's congestion relief efforts can help them procure CMAC or 5307 funding. The funding would help offset the high costs of long distance service and could go towards reducing fares. Another alternative is to revise the 511 Rideshare program to include information on and incentives for privately-provided commuter buses, especially those that are fee-based. MTC has already integrated last mile and community shuttle service route and schedule information onto their 511 transit trip planner, and should consider integrating fee-based commuter buses as well.

BAAQMD can incorporate language into its TFCA requirements to allow funding for employer- and fee-based commuter bus services more specifically instead of stipulating that the service to be accessible for multiple employment destinations or open to the public.

6.3 STATE ROLE

CALIFORNIA PUBLIC UTILITIES COMMISSION REGULATIONS⁴⁹

Private bus operators are licensed and regulated by the California Public Utilities Commission (CPUC). Vanpools seating 15 or fewer passengers and operated by a driver headed to work are exempt from California Public Utilities Commission (CPUC) certification requirements. Firms which operate and underwrite commuter bus services for their own employees are similarly exempt. CPUC maintains regulations for private for-profit vanpools and subscription intercity buses seeking entry into the marketplace.⁵⁰

The CPUC has an open entry policy for Passenger Stage Corporations (PSCs) which are defined as intercity services that transport passengers between points on an individual fare basis, with examples including fixed-route bus services and "share-ride" airport shuttle services. The PUC rarely denies a Certificate to Operate application preferring that the market regulate the supply of carriers. Public transit agencies and other private transportation companies have the opportunity to file protest on grounds of unfair competition or service disruptions. Currently, the CPUC takes three months to review a submitted application. Steps are being taken to streamline the process, with staff approving applications instead of the Commissioner. This will allow for a considerable reduction in time taken to process applications.

Though the PSC application is relatively straightforward, achieving transit agency consent as a requisite for approval can cause delays in processing. This requirement is to ensure that fee-based privately-provided commuter services do not undermine transit services. Transit agencies can delay or even damage the application if competition or operational conflicts are perceived. Given the diversity of travel demands in the United States and especially in the Bay Area, it is unlikely that the transit provider would face direct competition. Furthermore, private transportation companies cannot compete with transit fare subsidies and typically will not design a route that is comparable to that of a transit agency's.

Relaxing entry requirements for PSCs in terms transit agency approval would encourage more companies to offer fee-based commuter services and provide traveling public with diverse transportation options. However, the CPUC would maintain clear guidelines on safety, driver qualifications and general operating practices.

STATEWIDE TDM PROGRAM

Statewide transportation demand management (TDM) programs require employers to support and encourage travel alternatives. A TDM program on a statewide level can also help to formally recognize all types of privately-provided commuter bus services as a method to decrease the number of single occupancy commute trips.

TDM programs have typically been implemented on a regional basis in California. In 1992, the Bay Area Air Quality Management District (BAAQMD) passed Regulation 13, Transportation Control Measures, stipulating trip reduction requirements for large employers. The regulation established trip reduction requirements for public and private employers with 100 or more employees per work site, and established a specific implementation

⁴⁹ Wuerstle, Paul. "California Public Utilities Commission." Phone Interview by the California Center for Innovative Transportation.

⁵⁰ Cervero, Robert. "Fostering Commercial Transit: Alternatives in Greater Los Angeles." *The Reason Foundation* 146 (1992). <http://reason.org/files/8039a618f197e2c8bbfe21b2ac4cd285.pdf> (Accessed October 2009).

schedule.⁵¹ After businesses complained about the perceived rigidity of the law, California Legislature suspended the regulation in 1996 with SB 437, prohibiting air districts, congestion management agencies, and other public agencies from requiring an employer to implement an employee trip reduction program unless the program is expressly required by federal law.⁵²

Currently, BAAQMD promotes voluntary employer-based trip reduction programs through their Transportation Control Measures (TCM) listed in their 2000 Clean Air Plan and the 2005 Ozone Strategy. The TCM maintains that MTC will continue to administer the regional ridesharing program funded by BAAQMD's Transportation Fund for Clean Air (TFCA).⁵³

WASHINGTON STATE DOT COMMUTE TRIP REDUCTION LAW

Washington State Department of Transportation (DOT) offers a successful example of requiring commute trip reduction on a statewide level. Washington State's Commute Trip Reduction (CTR) Law was adopted by the 1991 Legislature as part of the Washington Clean Air Act.⁵⁴ The objective is to improve air quality, reduce traffic congestion and decrease the consumption of petroleum fuels through employer-based TDM programs. All counties with a population over 150,000, and each city or town containing a major employer is required to adopt an ordinance to implement a commute trip reduction plan.⁵⁵ The law applies to employers with 100 or more full-time employees at a single worksite who are scheduled to begin their workdays between 6:00 and 9:00 a.m.⁵⁶ Currently, around 1,110 worksites and 560,000 commuters statewide participate in the CTR Program.⁵⁷

One year before, 1990, the Washington State legislature adopted the Growth Management Act (GMA). The GMA requires state and local governments to manage Washington's growth by identifying and protecting critical areas and natural resource lands, designating urban growth areas and preparing comprehensive plans to discourage uncoordinated and unplanned growth.⁵⁸ Though no legal ties existed between the GMA and CTR laws at the time of adoption, linkages are now being created. For example, CTR is encouraging localities to have consistent parking management policies.

One of the successful features of the CTR law is flexibility. Employers are not penalized if they demonstrate a "good faith effort," as defined in the law. If a good faith effort is shown but the employer did not meet the commute trip reduction goals, or if the employer failed to make a good faith effort, the DOT and jurisdiction works collaboratively with the employer to make modifications to their commute trip reduction program. Flexibility is also seen in the design of the TDM programs. Employer TDM programs are customized according to location: suburban employers have different set of TDM options than city employers. However, all employers are, at a minimum, required to have 1) a transportation coordinator; 2) regular distribution of alternate

⁵¹ <http://www.arb.ca.gov/drdb/ba/curhtml/r13-1.htm>

⁵² http://info.sen.ca.gov/pub/95-96/bill/sen/sb_0401-0450/sb_437_cfa_950713_135859_asm_comm.html

⁵³ <http://www.baaqmd.gov/Divisions/Planning-and-Research/Plans/Clean-Air-Plans/Prior-Plans/~media/11A3AB3ABFE44283ADFD7FD7F6DDC3D9.ashx>

⁵⁴ Chapter 202, Sections 10 to 19

⁵⁵ Washington State Department of Transportation Revised Commute Trip Reduction Law, Appendix A.

<http://www.wsdot.wa.gov/NR/rdonlyres/086BE670-E436-4078-9189-85FAFC0779CE/0/AppendixA.pdf> (Accessed October 2009).

⁵⁶ Washington Clean Air Act. Commute Trip Reduction (CTR) Law (1991).

<http://www.wsdot.wa.gov/NR/rdonlyres/251C6614-9E0C-4E89-99A4-14161E4E6EAF/0/SEC1.pdf> (Accessed October 2009).

⁵⁷ Washington State Department of Transportation. "Commute Trip Reduction Program Overview."

<http://www.wsdot.wa.gov/TDM/CTR/overview.htm#goals> (Accessed October 2009).

⁵⁸ Washington State. "The Growth Management Act." <http://www.gmhb.wa.gov/gma/> (accessed October 2009).

commute program information to employees; 3) an annual review of employee commuting and reporting of progress toward meeting the single-occupant vehicle reduction goals; and 4) implementation of programs to achieve the commute trip reduction goals adopted by the jurisdiction.⁵⁹

Washington State funds the CTR program from their Multi-Modal Account, allocating \$5.5 million every two years, of which \$3.9 million is given to local agencies to administer the program. Employers receive some of this money through their localities to partially fund their worksite TDM programs. For example, Microsoft funds its TDM program entirely but receives some public money for their efforts. The remaining \$1.6 million funds CTR's technical assistance, measurement and data collection tools, and other support programs. CTR has also created a tax credit program for employers who provide financial incentives to their own employees for ride sharing, public transportation, car sharing, or non-motorized commuting. Employers can take the credit against the state business and occupation tax or the public utility tax.⁶⁰

The program has experienced success. Employers support the program, so much so that they rallied against the governor-proposed elimination of CTR. The percentage of employees who drove alone to work to CTR worksites declined from 71 percent in 1993 to 66 percent in 2007. In central Puget Sound, the CTR program decreased 19,200 vehicle trips every morning, reducing morning peak travel delay by an estimated 18 percent on average in the region.⁶¹

STATEWIDE TDM IN CALIFORNIA?

As mentioned earlier, SB 437 prohibits air districts, congestion management agencies, and other public agencies from requiring an employer to implement an employee trip reduction program in California. In response, many cities have instituted their own voluntary programs or have required trip reduction programs for companies seeking density bonuses. For example, the city of South San Francisco enacted a citywide TDM Ordinance that requires all non-residential developments seeking a floor area ratio (FAR) bonus to obtain an alternative mode use.⁶² The City of Los Angeles TDM Ordinance sets out comparable requirements according to FAR.⁶³

One way to support Assembly Bill 32, California Global Warming Solutions Act of 2006, a comprehensive program of regulatory and market mechanisms to achieve real, quantifiable, cost-effective reductions of greenhouse gases, is to suspend SB 437 and allow regional agencies to create trip reduction programs. Alternatively, the California Department of Transportation (Caltrans) can follow Washington State DOT's example and work with businesses to establish a statewide commute trip reduction program that does not penalize businesses for noncompliance. Instead, Caltrans or local agencies can work with those businesses that do not reach their target to create programs that are more effective. Incentives, tax credits and funding can help motivate businesses create programs for their employees by bringing down costs. The budget shortfalls in 2008-2010 may not be the most opportune time to create a trip reduction program with incentives though laying the foundation for the program should be considered on a statewide level.

⁵⁹ Keith Cotton, WSDOT Public Transportation Urban Programs Manager. "WSDOT Commute Trip Reduction." Interview by California Center for Innovative Transportation. May 28, 2009.

⁶⁰ Ibid.

⁶¹ Washington State Department of Transportation. "Commute Trip Reduction Program Overview." <http://www.wsdot.wa.gov/TDM/CTR/overview.htm#goals> (Accessed October 2009).

⁶² South San Francisco Municipal Code, § 20.120.030 Program Requirements and Standards. <http://qcode.us/codes/southsanfrancisco> (Accessed October 2009).

⁶³ City of Los Angeles. "Transportation Demand Management (TDM) Ordinance." Section 98.0411 of the Municipal Code (Chapter IX). http://www.triangletdmpplan.com/ordinances/LA_TDM_Ordinance.pdf (accessed October 2009).

6.4 FEDERAL ROLE

The Federal Transit Administration (FTA) can play an important role in supporting privately-provided commuter bus programs through encouraging new management opportunities for transit agencies, revising laws and providing funding. Mobility management is a concept promoted by the FTA and other transportation practitioners to encourage transit agencies to expand their purview from traditional fixed route transit systems to fostering and organizing a network of diverse transportation options. Options include carpooling and vanpooling, and providing transit options that are not traditional fixed routes, such as privately-provided commuter buses, shuttles and demand-responsive services. As a mobility manager, the transit agency can expand mode choice by providing complete transit information on all travel options instead of just the bus or rail system under its purview, being a one-stop center for all regional systems, including those operated by the private sector. FTA can provide guidance and incentivize more transit agencies to pursue this role.

Another method to encourage private-sector participation in providing transit services is by revising Section 13(c) of the amended 1964 Urban Mass Transportation Act. This labor protection clause guarantees that transit employees will not be adversely affected by any program involving federal transit grants. 13(c) also guarantees pay clauses and places prohibitions on part-time employment. Decreasing the difficulties with contacting between public and private transit providers can allow for more commute-oriented service that benefit customers.

Perhaps the most significant impediment to privately-provided commuter bus service transit is the lack of federal subsidies available directly to private operators. Subsidies open only to the public sector leaves private bus operators at a disadvantage in developing new services, unless they partner with a transit agency which may be difficult if 13(c) regulations impede collaboration or if the agency perceives competition.⁶⁴

Federal regulations and funding allocations discourage diversity in the transportation market. To a degree, these practices are inconsistent with the goals of mobility management. Allowing transit agencies to have greater flexibility in contracting services without 13(c) issues can provide service diversity to commuters at lower operating costs. Allocating funding to private commuter bus operators can also allow more companies to enter into the market. Though the funds stipulate that the service receiving public money be open to the public, special provisions should be considered for employer-based commuter bus services. Open only to employees, they still reduce a significant number of trips. Limiting ridership to employees protects company classified information when work is being conducted to or from the office. If service was open to the public, employees would be limited in the type of work they could do; working on sensitive project information may not be suitable if a member of the general public in the adjacent seat can easily see the employee's laptop. Therefore, special provisions within the funding requirements should be considered for employer-based commuter services that allow them to receive funds based on the trip reduction impacts even though their ridership pool is restricted.

CONCLUSIONS

Changes are needed to not only to encourage privately-provided commuter bus services but also to formally recognize their supplementary support of the regional transportation system. Public authorities should take

⁶⁴ Giuliano, Genevieve and Roger F. Teal. "Privately Provided Commuter Bus Services: Experiences, Problems and Prospects," in *Urban Transit: The Private Challenge to Public Transportation*. C.A. Lave, ed., Ballinger, Cambridge, Mass., 1985, pp. 151-179.

steps to ensure that the development of these services is facilitated, and that flexibility is allowed to provide for efficient and economical use of public and private transportation resources on a regional level. Privately-provided commuter bus services, especially in the San Francisco Bay Area, should not be kept solely afloat by determined employers and private operators.

7. NEXT STEPS AND RECOMMENDATIONS

Privately-provided commuter buses play an important role in the regional transportation system. They provide flexible and direct service to employment areas not well covered by public transit. Even commuters who are normally averse to taking transit are choosing the bus to take advantage of wireless internet access for more productive use of their time. Privately-provided commuter bus services have reduced the number of commuters driving alone over long distances, resulting in fewer cars on local streets and congested regional highways and reduced greenhouse gas emissions. Some of the buses also operate on alternative fuels, which further reduce greenhouse gas emissions.

The success of these services indicates the potential for privately-operated commuter bus services if offered as a part of the transportation system for a metropolitan region. They complement transit, filling transit gaps on a regional level by providing service to areas where public transit is not financially feasible due to insufficient density, including suburban office sites and large company campuses. Privately-provided commuter buses are not constrained by jurisdictional boundaries and with limited stop service, they offer competitive travel times to driving alone for distances 20 miles or greater in length.

Public agencies should recognize the limitations in the amount of service they can cost-effectively provide and expand their scope to include all public and private transportation services to provide a seamless system for the customer. Part of this process is to have privately-provided commuter bus services be recognized as a transportation alternative. Public agencies can also better coordinate the orderly development of a multi-modal urban transportation system when all services are formally integrated in to the planning process. Some actions public transit agencies can undertake to support privately-provided commuter bus services are listed in Table 2 below.

Table 2. Recommendations for Public Transit Agencies to Support Privately-Provided Commuter Bus Services

Recommendation	Description
Actions to Support Privately-Provided Commuter Bus Services	
Develop partnerships with private providers	• Foster clear communication and transparency • Communicate changes in service and policies that effect private operations • Provide a point of contact at the agency to coordinate with private operators and respond to complaints by the public and private operators. The staff contact can also provide guidance to new entrants
Collaborate on service provision	• Create agreements on route, schedule, stop location and other operating rules developed in consensus with private operators. These guidelines will also help new entrants determine the appropriate service structure • Plan routes that do not directly compete with but are complementary to service already being provided, both public and private • Determine a fee structure if necessary and how the fees would be used (e.g. management of commuter buses, salary for staff contact, expanding bus stops)
Contract with private providers	• Contract out some services or work cooperatively with partners to provide long distance express bus services
Educate drivers	• Receive input from public transit drivers on how to mitigate

Recommendation	Description
	potential on-street operational conflicts with private buses • Provide training to drivers of both public and private bus services to reduce on-street conflicts
Changes to Public Transit Agency Management Structure to Support Diverse Transportation Options	
Update management practices to create a more customer driven focus	• Create a mobility management approach to service provision, foster or organize a network of diverse transportation options (including privately-provided commuter buses) with information for the public centrally available
Build understanding and support	• Educate the transit board and the general public on new ways of delivering transportation services, including a full range of options • Work with local governments and neighborhood associations to overcome neighborhood opposition by choosing routes that meet concerns about buses on local streets
Reduce staff concerns over competition from private modes	• Ensure that staff have an understanding of privately provided transportation (commuter buses, vanpools, shuttles) and how they fit into the regional transportation system
Foster interagency dialog	• Meet with other public transit providers in the region on a regular basis to coordinate service planning and policies • Invite private operators to regional meetings. Their services may be able to bridge gaps in service
Role of Local Agencies (City and County)	
Provide support	• Explicitly recognize the role of privately-provided commuter bus services as a viable transit option that reduces congestion and greenhouse gas emissions on local streets
Collaborate with transit agencies and private transit operators	• Create route and stop guidelines for current and new services that mitigate any noise, safety and operational impacts to the public
Provide funding	• Provide funding for innovative ideas to reduce drive alone trips • Use impact fees on development, special sales taxes or other assessments to create a funding source
Require transportation demand management programs	• Reduce drive alone commute trips by encouraging ridesharing and other transportation demand management strategies for employers

As commuter buses generally travel over 20 miles and go through several jurisdictions, involvement of metropolitan planning organizations is critical to realize the benefits the private services provide. Some actions regional agencies can undertake to support privately-provided commuter bus services are listed in Table 3 below.

Table 3. Recommendations for Regional Agencies to Support Privately-Provided Commuter Bus Services

Recommendation	Description
Integrate privately-provided commuter bus service into the regional system	• Explicitly recognize the role of privately-provided commuter bus services as a viable transit option that reduces congestion and greenhouse gas emissions on the regional level • Invite commuter bus operators operating publically accessible service on a regional level to be part of the planning process • Incorporate information on fee-based commuter bus routes into the regional trip planner • Mitigate competition concerns among local transit agencies by creating requirements for coordination between public and private operators • Meet regularly with public transportation agencies to establish a base of understanding and a process to deal with opportunities or controversies as they arise • Include privately-provided commuter buses in the Regional Transportation Plan
Provide funding	• Provide funding for innovative ideas to reduce drive alone trips • Allocate funding specifically for projects that improve travel choices in congested corridors or reduce greenhouse gas emissions. Allow privately-provided operators access to funds without having to partner with a transit agency. The funding requirements should be suited to long-distance commuter operations that are and are not open to the public
Require transportation demand management programs	• Reduce drive alone commute trips by encouraging ridesharing and other transportation demand management strategies

Through their funding programs and regulations, state governments can have direct influence on the actions taken by public transportation agencies. State agencies, especially the departments of transportation, are increasingly exploring ways to improve quality of life through air quality regulations, growth management, transportation efficiency and public-private partnerships. Some state DOTs are approaching congestion in ways that promote ridesharing, transit and other alternative modes as well as incorporating land use policies. Privately-provided commuter bus services are one method to reduce drive alone trips that take up limited highway space and state agencies can take steps that promote private transit use and acceptance, as listed in Table 4 below.

Table 4. Recommendations for State Agencies to Support Privately-Provided Commuter Bus Services

Recommendation	Description
Increase opportunities for private provision of transit	Through the legislative process, states can change the institutional environment by allowing private providers receive funding for their commute operations and create coordinated public and private service
Provide more funding	Create grant programs for experimental projects including state required transportation demand management programs and privately provided transportation programs. Programs can be made permanent after the test period
Make funding more flexible	Make existing state funding programs more flexible by increasing the range of activities and providers to which funds can be applied
Provide incentives	Provide private operators and companies incentives to provide commuter services
Make non-highway solutions a higher priority	Maintain or implement rules mandating local trip reduction programs

The federal government influences transportation policy through its funding programs and regulations. The Obama Administration has enacted the U.S. Department of Transportation Livability Initiative and the Federal Sustainable Communities Partnership. The Sustainable Communities Partnership engages the Department of Transportation, the Environmental Protection Agency (EPA) and the Department of Housing and Urban Development (HUD) to provide affordable housing and more transportation options through compact land use.

The first of the six principles guiding the Sustainable Communities Partnership calls for the provision of “more transportation choices: Develop safe, reliable and economical transportation choices to decrease household transportation costs, reduce our nation’s dependence on foreign oil, improve air quality, reduce greenhouse gas emissions and promote public health.”⁶⁵ Privately-provided commuter buses accomplish all the goals listed under the principle and the FTA can take steps to recognize that private transit companies can also accomplish these goals. Table 5 lists recommendations for the federal government to support privately-provided commuter bus service.

⁶⁵ Livable and Sustainable Communities." Federal Transit Administration.
http://fta.dot.gov/publications/publications_10935.html (Accessed February 2010).

Table 5. Recommendations for the Federal Government to Support Privately-Provided Commuter Bus Services

Recommendation	Description
Provide targeted funding for demonstrations and innovative ridesharing programs	• Create grant programs for experimental projects including state required transportation demand management programs and privately provided transportation programs. Programs can be made permanent after the test period • Provide funding and guidance for transit agencies to transition to mobility management responsibilities
Increase opportunities for private provision of transit	• Encourage service by private providers through direct grants for their commute operations • Designate privately-provided commuter bus services as a separate non-rail mode, similar to the designation given to private vanpools. This will make the services directly eligible for funding
Maintain and increase funding	• Make funding programs more flexible by increasing the range of activities and providers to which funds can be applied, including private transit services
Revise transit labor regulations to allow greater ease for public private partnerships	• Reduce extent to which Section 13(c) conflicts with transit agency ability to diversify services.

Conventional fixed route transit service is unable to meet all the transportation needs of a modern urban area where decentralized residential and employment patterns lead to indirect, dispersed and long-distance travel patterns. National, state and local strategies and action plans are needed to allow for more innovative transportation options that fall out of the purview of public transit agencies but are complementary to fixed route services. Advocacy, networking and policy development at the regional level is needed to increase recognition and create opportunities for privately-provided commuter bus service, in all forms.

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APPENDIX A. HOW COMPANIES CAN INITIATE COMMUTER BUS SERVICES FOR THEIR EMPLOYEES

Initiating commuter bus service can encourage employees to reduce their drive alone trips to the office, reduce parking demand and meet trip reduction targets. Though the expense for running the bus program are high, the benefits include better recruitment and retention capabilities, improvement in employee satisfaction and productivity and reduction in parking costs and requirements.

If your company does not provide any service currently, you can initiate service slowly, by first providing service to the nearest regional transit stop (for example BART or Caltrain) to grow ridership and become accustomed to providing a shuttle/bus service. The following table lists some of the steps involved with setting up service.

Table X. Initiating Employee Bus Service^{66,67}

Step	Activity	Task
1.	Familiarize yourself with transportation demand management (TDM) and local transportation options	• Contact agencies or other companies for information: ○ Association for Commuter Transportation (www.actweb.org) ○ CommuterChoice.com website provides an open service to employers http://ops.fhwa.dot.gov/PrimerDSS/implementation/implement_1.htm ○ Victoria Transport Policy Institute – Online TDM Encyclopedia http://www.vtpi.org/tdm/tdm12.htm ○ Victoria Transport Policy Institute, Guide to Calculating Mobility Management Benefits http://www.vtpi.org/tdmben.pdf ○ US Department of Transportation, A Guidance Manual for Implementing Effective Employer-based Travel Demand Management Programs http://ntl.bts.gov/DOCS/474.html • Visit your locality's transportation website or the regional 511 system to determine available transportation services serving or in close proximity to your workplace ○ Bay Area 511 System – consolidated phone and web source for real time Bay Area traffic, transit, rideshare, and bicycling information http://www.511.org/ • Contact other employers who have established companywide TDM programs
2.	Assess your workplace	• Conduct an employee survey to determine mode of travel ○ How many people drive alone to work, where are they coming from? ○ How many carpool, take the bus, walk, cycle? ○ How many would change their mode if offered incentives like a transit pass subsidy, a guaranteed ride home for carpoolers, or a safe cycling lock-up? ○ Sample survey: http://rideshare.511.org/survey/shuttle/ • Map employee residential locations to determine their proximity to transit as well as density (medium to high density in a location allows for effective commuter bus service. For example, some employers have commuter bus service from the Mission District in San Francisco as each found a high concentration of employees living in the area) • Conduct a commuting assessment of your worksite to determine gaps in infrastructure and services. Gather information including: ○ Transit service; parking spaces, cost and policies; access to showers and

⁶⁶ Federal Highway Administration, U.S. Department of Transportation. "Commuter Choice Decision Support Decision. http://ops.fhwa.dot.gov/PrimerDSS/implementation/implement_1.htm (Accessed October 2009).

⁶⁷ Resource Conservation Manitoba. "Green Commute Workplace Guide." <http://www.resourceconservation.mb.ca/gci/TDM/Guide/index.html> (Accessed September 2010).

		lockers for cyclists, inline skaters and walkers; company vehicles and personal vehicle reimbursement conditions.
3.	Build support and set goals	• Provide a list of commuting benefits in presentation or written format to help to make the case ○ Example from Winnipeg, Canada http://www.resourceconservation.mb.ca/gci/TDM/TDMpdfs/Benefits%20of%20Green%20Commuting.pdf • Set goals appropriate to worksite, examples include: ○ Congestion and greenhouse gas reduction ○ Employee retention, recruitment, satisfaction and productivity ○ Parking space reduction targets • Garner top level management support for the program, a strong leader can cut through the bureaucratic process to get the program started ○ Present findings of your workplace assessment to describe priority areas and identify gaps
4.	Determine specific strategies to implement	• Using survey results, identify specific incentives, services, and programs that will help you reach your goals • Start a new program with a few high potential strategies instead of trying to implement all possible options. Be able to scale program as demand increases ○ Pre-Tax Payroll Deductions (http://transit.metrokc.gov/cs/employer/pdf/ctr-fr2241.pdf) ○ Transit pass subsidies (Eco-Pass) ○ Carpool/vanpool matching and preferred parking spot designation ○ Secure bike parking ○ Guaranteed Ride Home (this should be provided. For a minimal cost, employees have the assurance that they will be able to respond to emergency situations even if taking alternative transportation http://www.commuterpage.com/ridehome.htm) ○ Showers, lockers, and change room facilities ○ Alternative commuting workshops ○ Compressed work schedules ○ Telework policies ○ Marketing and promotion ○ Shuttle services • Shuttle programs ○ If possible, partner with a consortium of companies with the option to branch off if ridership in own company grows ○ Start shuttle program with last mile shuttles that provide transportation from the nearest regional transit stop to the office ○ Contract with charter bus companies. Companies are experienced in helping determine route and schedule and provide drivers, variety of vehicles and overall transportation expertise. Contractors in the Bay Area include Bauer's (http://www.bauersit.com/), MV Transportation (http://www.mvtransit.com/home/), Coach USA (http://www.coachusa.com/chs.quote.asp) and Veolia (http://www.veoliatransportation.com/on-demand/corporate-shuttles).
5.	Establish a Budget	• Determine the appropriate budget needed to implement the selected strategies. • Though effective strategies are not always costly, a transit coordinator will cost the employer staff time. The greater the need, the greater the level of resources that may be needed.
6.	Market and Promote	• Inform employees of the program. ○ Use employer newsletters, bulletin boards, email and other internal communications methods to raise awareness about the program. Let

		employees know what their commuting options are, what assistance is available, and how they benefit from participating. • Schedule presentations and workshops related to your specific incentives • Offer giveaways for new participants and rewards for those who continue to participate. Promotion of the program is an on-going effort. Try new activities and messages so that employees don't forget about their options. • Use a cafeteria, lunch room, reception area, etc. to post notices about commuting events such as seminars and workshops, a transit systems map and transit schedules relevant to your work site, a cyclists' map, and a Rideshare Board. • Organize special events like a transportation fair to provide brochures on your program and incentives
7.	Track success and show benefits	• Provide on-going evaluation as conditions and priorities change for employees commuting needs. Civic situations may change, with new facilities and improved services for walking, cycling and taking transit. As these are developed, it is important to incorporate them into your plan. • Evaluate original goals and priorities and make changes to incentives / programs to develop a new set of targets. ○ Develop methods to track mode split • Show Benefits ○ Look for behavior changes and seek out stories from employees about how satisfied (or dissatisfied) they may be with new programs and services. ○ Communicate stories or anecdotal evidence to show how employees are better off physically and financially, how the workplace reaps productivity and loyalty benefits, and how the community benefits from reduced emissions and cleaner air thanks to your commuting plan.

EVALUATION CRITERIA

Quantitative assessment should include measures of the productivity and cost-effectiveness of each program to determine how well the service uses its resources and serves the targeted market segment. Typical measures of productivity and cost-effectiveness include trips per hour, trips per mile, cost per trip, cost per hour, cost per mile, and fare recovery.⁶⁸ Public transit agencies however, may want to add another measure, subsidy per trip.⁶⁹ Typically long distance services have to produce a higher recovery ratio than local routes.

Aside from productivity and cost-effectiveness, quantitative assessment should also include report the number of single occupancy vehicles (SOVs) reduced during peak periods and the related reduction in pollutants. However, use of quantitative measures is not sufficient to determine the true value of the commuter services. Operators also need to incorporate broader goals that take into account societal perspectives and indirect benefits such as the support of company development objectives, the contribution to the region's livability, and the contribution to air quality and congestion improvements.

⁶⁸ Minerva, Victor, Sampson, David and Levinson, Herbert S. "Employer Shuttles—Concepts and Case Studies" <http://trb.metapress.com/content/481186up1jt22024/fulltext.pdf> (Accessed September 2009).

⁶⁹ Chambers, Cliff. Transit Resource Center. Phone interview by the California Center for Innovative Transportation. July 2009.