

FINAL REPORT

COMMERCIAL VEHICLE BUSINESS ARRANGEMENTS
Fort Lauderdale-Hollywood International Airport

Prepared for
Broward County Aviation Department
Fort Lauderdale, Florida

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EXECUTIVE SUMMARY

As part of the development of the Ground Transportation System, the Broward County Aviation Department (BCAD), with the assistance of Jacobs Consultancy, has (1) conducted a review of the current commercial ground transportation service operations at the Airport, (2) evaluated alternative business arrangements models for the commercial ground transportation services, and (3) selected a preferred approach for each service. This report presents the recommended business arrangement models and supporting analyses regarding the business arrangements.

Goals and Objectives

To guide the evaluation and selection of the preferred business model for each commercial vehicle service, Jacobs Consultancy and BCAD staff established the following goals:

- Provide superior ground transportation for airline passengers
- Allow customers to choose from a “menu” of ground transportation services available at a range of costs and levels of service
- Provide the ability to manage commercial vehicles efficiently
- Increase BCAD’s non-airline revenues
- Assure that all commercial ground transportation operators contribute to costs of Airport operation.

Recommendations

Based on the identified goals and objectives and the review of existing business arrangements, services, and potential alternatives, it is recommended that BCAD:

1. Retain a ground transportation operations contractor to manage taxicab operations and perform other duties. This contractor would be required to demonstrate that they have no business relationships or interests in taxicab operations in south Florida.
2. Implement an Automatic Vehicle Identification (AVI) system that would be used to monitor the volume of commercial vehicle trips on the Airport.
3. In cooperation with Port Everglades, implement higher taxicab standards than those currently required by Broward County. These standards would be consistent with those at other airports offering high-quality taxicab service.
4. Allow all County taxicabs and drivers meeting new BCAD/Port standards to pick up on-demand passengers on the Airport. Each taxicab driver picking up a customer at the Airport would be required to pay a fee to BCAD.
5. Establish a separate concession contract for shared-ride van services.

6. Discontinue on-demand private car services. In the event BCAD management should desire to continue on-demand private car services or re-establish these services in the future, it is recommended that BCAD award a separate concession contract solely for the provision of on-demand private car services. Concessionaires seeking this contract would need to demonstrate that they have no business connections with the then current ground transportation management contractor or the shared-ride van concessionaire.
7. Implement per-trip fee amounts that (a) allow BCAD to fully recover its annual costs of providing, maintaining, and operating the facilities used by the commercial vehicles and (b) reflect the varying size of vehicles used by each service (i.e., buses with capacity for 30 or fewer passengers would pay a lower fee than buses with capacity for more than 30 passengers). Operators paying concession or privilege fees (i.e., fees calculated as a percentage of the operator's airport-related gross revenues) would be charged the higher of their concession/privilege fee or their per-trip fees. The fee amounts are to be reviewed and adjusted periodically to reflect changes in BCAD's costs and the volume of commercial vehicle trips.
8. Require that the operators of hotel/motel courtesy vehicles, pre-arranged limousines, and all charter buses pay the per-trip fees. Hotel/motel operators would also pay additional fees for any trips exceeding a prescribed monthly limit.. The monthly limit on courtesy vehicle trips is intended to encourage efficient use of the Airport roadways and curbsides.
9. Require the operators of off-Airport parking businesses pay the existing privilege fee, as well as fees for any trips exceeding a prescribed monthly limit.
10. Establish ground transportation information counters (to be staffed by the ground transportation operations contractor) in each terminal to provide customer with information on fares, schedules, and destinations served, and service for passengers with special needs.
11. Establish a pre-arranged limousine driver meet/greet area adjacent to the ground transportation information counters at each terminal.

BCAD Costs

It is estimated that to accommodate and manage commercial vehicles, in FY 2009 BCAD incurred expenses of approximately \$2.55 million (including facility depreciation, operating expenses, and administration and overhead expenses). Implementation of the recommendations described above is expected to result in additional costs to BCAD as BCAD would now be responsible for (a) the ground transportation operations contractor and (b) acquisition and operation of the AVI system. It is estimated that annually these costs would be about \$2.34 million. Therefore, it is expected that upon implementation of

the recommendations, total costs to accommodate commercial vehicles would be approximately \$4.9 million.

Potential Fees and Revenues

As stated above, it is recommended that BCAD implement per-trip fees that will allow it to fully recover the costs it incurs to provide, maintain, and operate the facilities used by the commercial vehicle operators. Table ES-1 presents these fees as well as the corresponding estimated annual revenues. As shown, with implementation of the per-trip fees, BCAD's annual revenues are expected to be approximately \$4.9 million, which is equal to the expected costs. By comparison, in FY 2009 BCAD annual revenues from commercial vehicle operations were approximately \$1.31 million, while its costs to provide the facilities and manage commercial vehicles were approximately \$2.55 million (for a net difference of approximately \$1.24 million).

Table ES-1
CALCULATED PER-TRIP FEES AND ESTIMATED REVENUES
Fort Lauderdale-Hollywood International Airport

Commercial vehicle service	Estimated annual trips	Per-trip fee	Approximate annual revenue
Taxicabs	540,000	\$4.55	\$2,455,000
Shared-ride vans	140,000	\$3.51	490,000 (a)
Pre-arranged limousines (b)	350,000	\$2.66 - \$4.26	985,000
Courtesy vehicles	220,000	\$3.51	770,000 (a)
Charter buses (b)	10,000	\$9.95 - \$19.91	190,000
Total	1,260,000		\$4,890,000

(a) Commercial vehicle services with concession arrangements (shared-ride vans) or privilege fees (off-Airport parking operators) are assumed to pay the higher of their per-trip fees or concession/privilege fees, which could result in higher revenues than shown in this table.

(b) The per-trip fee range reflects the potential range in vehicle sizes used by the operators. Larger vehicles would pay the higher end of the range.

It is suggested that per-trip fee amounts be reviewed periodically (e.g. bi-annually) to reflect changes in BCAD's costs or the volume of commercial vehicle activity. It is expected that the concession/privilege fees paid by the shared-ride van operator and off-Airport parking operators will exceed the per-trip fee revenues shown in Table ES-1. Therefore, these per-trip fee amounts would allow BCAD to fully recover or exceed (a) the costs it now incurs in providing, maintaining, and operating the facilities used by the commercial vehicle operators and (b) the costs associated with the recommendations described above.

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This report presents recommended commercial vehicle business arrangements for ground transportation services at Fort Lauderdale-Hollywood International Airport. The report is divided into the following sections:

1. Study purpose and scope
2. Goals and objectives for commercial vehicle business arrangements
3. Summary of existing commercial vehicle business arrangements
4. Concerns with existing business arrangements
5. Alternative business models considered
6. Recommended commercial vehicle business model
7. Proposed commercial vehicle fees
8. Sequence of implementation actions

Appendices

1. Study Purpose and Scope

Broward County intends to implement a Ground Transportation System at Fort Lauderdale-Hollywood International Airport (the Airport), and potentially at Port Everglades, that will utilize Automated Vehicle Identification (AVI) to monitor the number of trips made by each commercial vehicle operating on the Airport. The data resulting from the AVI system is to be used as a basis for calculating the amount of potential fees (i.e., per-trip fees) and demand management fees to be paid by each commercial vehicle company doing business on the Airport. As part of the development of the Ground Transportation System, the Broward County Aviation Department (BCAD) has decided to (1) conduct a review of the current commercial ground transportation service operations at the Airport, (2) evaluate alternative business arrangements models for the commercial ground transportation services, and (3) select a preferred approach for each service.

To accomplish these goals, BCAD requested that Jacobs Consultancy conduct the following tasks:

- **Review existing ground transportation concession contracts and permits.** Review (a) the existing contracts with the providers of taxicab, shared-ride, and private car services and (b) the existing operator permits and fee structures for other commercial ground transportation services to identify key aspects of the contracts and permits regarding service standards and requirements, responsibilities, and fees. As part of this review, meet with representatives of the commercial ground transportation services and Port Everglades to learn their goals, objectives, and issues related to existing and future commercial ground transportation operations.

- **Prepare a benchmark summary of key contract features.** Collect information on dispatch methods (with an emphasis on taxicabs), general operating rules, business/contract arrangements, expenses associated with the management of commercial ground transportation services, and types of fees (e.g., permit fees, trip fees, dwell charges, and other fees or chargers) charged.
- **Identify and evaluate alternative commercial vehicle dispatch management and operating models.** Identify potential alternative commercial vehicle dispatch management and operating models, some of which may only apply to specific commercial vehicle services, as well as evaluation measures to be used in the comparative evaluation of these models. Select a preferred model for each commercial vehicle service that best meets BCAD's goals and objectives for that service.
- **Identify potential fees for commercial vehicle services.** Collect available information regarding the annual expenses BCAD incurs (i.e., facility depreciation, direct operating expenses, administrative and overhead expenses) in accommodating commercial vehicle services operating at the Airport. Based on available survey data, estimate the annual volume of vehicle trips, by type of vehicle (e.g., private vehicle, taxicab, parking shuttle, etc.), for 2009. Using the expense and vehicle trip data, calculate the full-cost-recovery per-trip fees that BCAD need to charge to fully recover its existing expenses. In addition, identify potential alternative fee approaches, including fees that (a) vary based on vehicle size, (b) provide incentives for alternative fuels or demand management measures, or (c) recognize infrequent users. The representative ranges of fees that could be implemented under these alternative approaches will be provided as opposed to specific recommended fee amounts.
- **Develop an implementation plan for transition to the AVI system.** Develop a phased implementation plan to allow BCAD to transition from the existing commercial vehicle management, operational, and fee policies to the recommended policies identified in prior tasks. Describe the sequence of actions required to implement the recommended policies and programs and identify capabilities that the AVI system must have to ensure that it can support the recommended commercial vehicle management, operational, and fee policies.
- **Document preferred management and operating model for each commercial vehicle service.** Prepare a draft and final executive summary appropriate for presentation to senior BCAD staff and the Board of County Commissioners summarizing the evaluation process and selection of the preferred management and operating models. Following discussion of the executive summary, prepare a draft and final report summarizing the findings of all tasks conducted as part of this study.
- **Coordination.** Coordinate with firms preparing the design criteria package for the AVI system procurement.

2. Goals and Objectives for Commercial Vehicle Business Arrangements

To guide the evaluation and selection of the preferred business model for each commercial vehicle service, Jacobs Consultancy and BCAD staff established the following list of airport goals for the purpose of this project:

- Provide superior ground transportation for airline passengers. This implies providing an opportunity for improved vehicle standards and for higher-quality driver standards.
- Allow customers to choose from a “menu” of ground transportation services available at a range of cost and service levels.
- Provide the ability to manage commercial vehicles efficiently. This implies ease of fee collection and no significant increase in the number of BCAD staff needed to oversee operations or oversee a contractor.
- Increase BCAD’s non-airline revenues. This implies no increase in costs unless countered by increase revenues.
- All operators contribute to costs of Airport operation.

3. Summary of Existing Commercial Vehicle Business Arrangements

This section summarizes key elements of the existing commercial vehicle business arrangements with commercial vehicle services operating at the Airport.

Taxicabs

BCAD now awards a single company a concession contract to provide and operate on-demand taxicab service at Fort Lauderdale/Hollywood International Airport. The current concessionaire is B&L Services (a division of Yellow Cab). This contract requires that the concessionaire allow a limited number of independent taxicab operators licensed by Broward County (i.e., cabs not owned or controlled by B&L Services) to do business at the Airport (i.e., pick up on demand customers) if they are accepted during the annual two-week “Enrollment Period” described below.

B&L Services owns approximately 200 Broward County taxi permits and controls an additional 300 taxi permits owned by other taxicab companies. Thus, the company controls 62.5% of total Broward County taxi permits. B&L Services operates two curbside taxicab podiums (or starter positions) and curbside loading areas at Terminal 1, and one taxicab podium and curbside loading area at each of the other terminals. Taxicabs, dispatched from the hold area located southeast of the Airport off of N.E. 10th Street, proceed to taxicab queues located in the Ground Transportation Areas (GTAs) at Terminals 1, 2, 3, and 4, and then to the designated terminal where they are allowed wait for customers in the designated curbside loading areas.

The responsibilities of B&L Services include:

1. Managing the taxicabs waiting in the holding area and dispatching taxicabs from the holding area to each terminal building in response to customer demand
2. Controlling the sequence of queued taxicabs waiting for customers at each terminal and directing passengers to the correct waiting taxicab
3. Arranging for customer requests of vans, ADA-equipped taxicabs and other special requests
4. Accepting independent taxicab operators' application during the annual two-week "Enrollment Period"
5. Assuring all B&L Services taxicabs and independent taxicabs (a) meet BCAD standards, (b) have valid County permits and licenses, and (c) are registered with B&L Services during the "Enrollment Period"
6. On an annual basis, providing BCAD a projected annual operating budget, the total number of registered independent taxicab operators, and the total number of taxicabs that will be operated by B&L Services employees or franchised drivers
7. Maintaining the taxicab holding area
8. Responding to customers' complaints

B&L Services was awarded a five-year concessionaire contract in 2002. The contract, which has been extended three times, is scheduled to expire on April 30, 2010. As of March 2010, BCAD is negotiating an additional extension with B&L Services. B&L Services originally bid on a concession fee (privilege fee) that is equal to greater of (1) annual "Per Capita Charge, calculated as \$0.051 multiplied by the Airport's annual deplanements (arriving passengers), or (2) a Minimum Annual Guarantee (MAG), which was \$300,000 in Year 2002. The agreement also calls for the MAG to be revised annually to be the higher of \$300,000 or 80% of the aggregate privilege fee due and payable for the prior contract year. In 2009, B&L paid a concession fee of \$537,900, which exceeded the 2009 MAG of \$448,272.

Shared-ride Services/Private Cars

BCAD now awards a single company an exclusive concession contract to provide and operate on-demand, shared-ride shuttle services and on-demand private car service at the Airport. The current concessionaire is Yellow Airport Limousine Service doing business as GO Airport Shuttle.

According to information provided by representatives of Yellow Airport Limousine Service/GO Airport Shuttle, their service at the Airport is provided using 27 club wagons (or 9-passenger vans) and 94 luxury town cars. GO Airport Shuttle operates one shared-ride vehicle service podium on the curb in front of each terminal (except Terminal 1, which has two podium

locations) and their vehicles (vans or private cars) are permitted to pick up passengers within the designated loading area on the curb.

The responsibilities of Yellow Airport Limousine Service/GO Airport Shuttle include:

1. Providing the core fleet of vehicles that must be dedicated to serving arriving passengers
2. Providing, supplying, and maintaining suitable modern, late model, air-conditioned, luxurious vehicles (no less than 60% of the total fleet), and vans (no more than 40% of the total fleet) of good quality
3. Maintaining the holding area used by its vehicles
4. Dispatching its vehicles from the holding area to each terminal building in response to passenger demands
5. Maintaining high quality on-demand, shared-ride and non-shared ride, zone fare, common carriage, door-to-door, airport limousine services
6. Obtaining prior written consent of the Aviation Department to increase fares

BCAD's concession contract with Yellow Airport Limousine Service is scheduled to expire on April 30, 2010, and as of March 2010, negotiations are underway to extend this contract. Yellow Airport Limousine Services' original bid included a concession fee (privilege fee) equal to greater of (1) an annual "Per Capita Charge", calculated as \$0.0461 multiplied by the Airport's annual deplanements (arriving passengers), or (2) a MAG, which was \$250,000 in Year 2002. The agreement also updated the MAG annually as the higher of \$250,000 or 80% of the aggregate privilege fee due and payable for the prior contract year. In 2009, Yellow Airport Limousine paid a concession fee of \$488,800, which exceeded the 2009 MAG of \$390,840.

Courtesy Vehicles

Courtesy vehicles include those vehicles operated by the operators of off-site rental car companies, off-Airport parking facilities, and hotel/motels for the purpose of transporting their customers between the Airport and their place of business without any direct cost to the customers. BCAD requires that operators of all vehicles operating as a courtesy vehicle (1) pay \$50 per vehicle for an annual Airport decal (\$10 of which goes to BCAD and \$40 of which goes to Broward County), (2) affix this decal to the vehicle's windshield in the location designated by BCAD, and (3) pick up and drop off customers only in those areas designated by BCAD. They are not required to pay any fees that relate directly to their use of Airport roadways or ground transportation areas.

Current courtesy vehicle service providers at the Airport include the following:

- Off-site rental car company shuttles. These operators are required to pay \$3.95 per rental car contract plus an additional \$0.10 per contract if the company desires to have their name listed on Airport roadway signage. These operators pick up and drop off passengers at the

Consolidated Rental Car Facility instead of at the terminal curbsides. Because these operators use only the Consolidated Rental Car Facility and not the terminal roadways, curbsides, and GTAs, these revenues are not considered in the analyses presented in this report.

- Off airport parking shuttles. These operators are required to pay a privilege fee of 4% of the first \$20,000 gross revenue each month and 8% of all gross revenue beyond the first \$20,000.
- Hotel/motel shuttles. These operators are not required to pay any fees other than the decal fee described above.

Pre-arranged Limousines/vans

BCAD allows any operator of limousines/vans having a valid (1) County Chauffeur's Registration from the vehicle's county of origin and (2) a BCAD decal for each vehicle operating on the Airport to provide prearranged pickup (i.e., transportation) of Airport passengers. The operator affixes this decal to the vehicle's windshield in the location designated by BCAD and waits for their customers in an Airport public parking facility. Currently the fee for the decal is \$50 per vehicle per year (\$10 of which goes to BCAD and \$40 of which goes to Broward County).

Charter and Cruise Ship Buses

BCAD allows permitted charter buses, including those serving cruise ship passengers, to pick up and drop off passengers at the Airport. Bus companies operating at the Airport are required to pay a company application fee (\$50 per year) and pay BCAD (1) a \$10 annual per vehicle fee and (2) \$6 per-trip fee for vehicles with a capacity of 26 passengers or less and \$10 for vehicles with a capacity of 27 passengers or more. However these fees are monitored and paid on an "honor system" as BCAD does not actively monitor the capacity of each charter bus. In addition, BCAD currently does not charge per-trip fees for charter buses carrying passengers between the Airport and Port Everglades. All buses stage at the bus hold lot, located in the northwest corner of the Airport at the intersection of West Perimeter Road and SW 36th Street, and when notified by the company's dispatcher that customers are ready to board, proceed to the terminal curbside. At present, during peak cruise ship season, representatives of the major cruise ship bus companies coordinate bus operations informally in attempt to avoid overloading the curbsides.

Annual Revenues

The business arrangements between BCAD and the commercial vehicle operators listed above resulted in the following revenues paid to BCAD in FY 2009:

Commercial vehicle service	FY 2009 fees paid to BCAD
Taxicabs	\$ 537,900
Shared-ride services & private cars	488,800
Pre-arranged limousines	16,127
Hotel courtesy vehicles	500
Off-Airport parking courtesy vehicles	247,700
Charter / tour buses	<u>40,300</u>
Total	\$1,331,327

Source: BCAD, February 2010.

4. Concerns with Existing Business Arrangements

This section describes the concerns with the existing business arrangements and ground transportation services. The major areas of concern relate to:

- The quality of customer service offered
- BCAD's ability to efficiently manage and control curbside use
- Extent of contribution to BCAD's operating and maintenance costs
- Presentation of competing services at the curbsides.

The concerns associated with each ground transportation service, based on interviews with BCAD staff and representatives of the commercial vehicle operators, are addressed in the following paragraphs.

Taxicabs

Major concerns with existing taxicab operations include:

- ***Decline in the service quality.*** As the proportion of independent taxicab operators in the Airport fleet has increased, so has the chance that customers will ride in an older vehicle, that has not been properly maintained, does not offer computerized dispatching or credit card processing, has lower insurance coverage, and is operated by a driver who has not had recent customer service training. B&L can require its affiliated taxicab operators to meet standards exceeding the County's minimum standards (e.g., require computerize credit card processing, newer vehicles, higher insurance coverage, and driver training), but is unable to require independent operators to do so. To avoid unnecessary vehicle maintenance or training costs, it is reported that many drivers now just comply with the County's minimum standards (i.e., drivers are operating at the lowest common denominator). Furthermore, while B&L has authority to prevent access for taxicabs not meeting the County minimum

standards, B&L may elect to allow access for non-compliant taxicabs to avoid potential charges of preventing access to competing taxicabs.

- ***Lack of taxicabs during busy periods.*** During busy periods, such as busy cruise ship weekends, there are insufficient cabs available at the Airport to serve customer demand. During these periods BCAD allows B&L to call all cabs whether they have an Airport permit or not. These “open calls” can further reduce service quality but is necessary to meet unusual peaking conditions.
- ***Quality of service compared to other airports.*** BCAD cabs are not required to provide secure (i.e., computerized) credit-card processing, utilize alternative fuels (although a pilot program for alternative fuels was recently implemented by the County), or have computerized dispatching. High quality taxicab services in other communities offer secure credit card processing, frequently have computerized dispatch/GPS equipment, and use alternative fuel/hybrid vehicles.
- ***Lack of computerized dispatching.*** In other communities, the lack of computerized dispatching often results in a large number of taxicab operators who primarily if not exclusively serve the airport, and who rarely serve other portions of the community. These airport-dependent operators “deadhead” back to the airport after every trip (thereby increasing vehicle miles of travel and the volume of greenhouse gases generated) and are more likely to refuse short trips.
- ***Limited access by independent operators.*** Independent operators have complained about the large proportion of business served by B&L controlled taxicabs (although this is allowed under the existing concession agreement). Independent operators also perceive that they are treated unfairly by B&L dispatchers (e.g., independent drivers claim that they receive a disproportionate share of the short-trips or less lucrative trips). Independent drivers also complain that shared-ride van customer service representatives encourage some short-trip customers (e.g., those going to Port Everglades) to take taxis. Finally, independent operators note that, unlike many other airports, the B&L staff are allowed to load passengers’ baggage into the waiting taxicab and accept tips for this service. Some independent drivers claim that dispatcher basic wages are set low, assuming that the tips they receive are part of their income.

Shared-ride Services / Private Cars

On-demand, door-to-door, shared-ride service is now available at over 80 airports. The shared-ride service is exactly the same as that provided at most other airports in several respects: customers pay the drivers (rather than purchasing tickets before boarding); the vehicles provide door-to-door service throughout the region (rather than just along a defined route at a limited number of stops); customers are directed to wait at the curb or in the vehicle (rather than inside the terminal) allowing the operator to group passengers going to common service areas; and vehicles operate on an on-demand basis rather than a scheduled basis.

Unlike Fort Lauderdale-Hollywood, service at most all other airports is provided exclusively in vans carrying up to 8 customers and their luggage. We are unaware of any other airport where customers seeking shared-ride service are directed to either a van or a luxury sedan, and told that both provide equivalent service. At the Airport, Go Airport Shuttle's curbside customer service representatives may direct prospective customers to either a waiting shared-ride van, to a luxury sedan operating as a shared-ride vehicle, or to the same luxury sedan operating as an on-demand private car (albeit at a higher fare). Go Transport representatives indicate the current arrangement provides their drivers (who are independent contractors) with greater income opportunities (less waiting time for fares) and thus enhances service quality.

Our primary concerns with the current operation are:

- We believe, and BCAD staff agree, that prospective shared-ride customers not familiar with the Airport find the current arrangement confusing and have difficulty comparing the fares, service, and waiting and travel times offered by taxicabs, private cars and shared-ride vans. While BCAD provides signs comparing the fares to major destinations at the baggage claim exit doors and near the podiums operated by the taxicab and shared-ride/private car concessionaires, given the numerous zones and destinations, it can be difficult for customers to readily contrast the fares and travel times to specific destinations. Many customers are not be aware that the least expensive transportation service may vary by destination.
- On-demand customers may doubt that a luxury sedan will transport a single passenger (or party) for the same fare as a shared-ride van.
- Undesirable competitive conditions result from offering on-demand private car service and taxicab service at adjacent curbside locations, as they are now. Taxicab drivers perceive that B&L starters direct some prospective customers to the GO Airport Shuttle representatives. BCAD staff report that physical fights and threats occur at the curbsides.
- BCAD cannot readily monitor the fares shared-ride van and luxury sedan drivers charge customers. There is a perception that drivers, particularly private car drivers operating as shared-ride vehicles, may overcharge customers when transporting a single passenger or small group. It is not possible for GO Airport Shuttle or BCAD to readily monitor the fares collected.

Courtesy Vehicles

The major concern with courtesy vehicle operations is that the businesses operating courtesy vehicles—primarily the operators of hotel/motels—do not contribute to their proportionate share of BCAD's costs of providing, operating, maintaining, and enforcing the roadways and other Airport ground transportation facilities they use. Most other ground transportation services at the Airport pay fees that are related to the volume of business they conduct on the Airport or the number of trips they make on Airport roadways. A second concern relates to the headways between successive vehicles maintained by certain courtesy vehicle operators in order to advertise their services. This results in courtesy vehicles traveling empty or with one passenger and contributes to congestion on airport roadways.

Pre-arranged Limousines/vans

The major concern with pre-arranged limousines vans is that the business operating these vehicles do not contribute their proportionate share of BCAD's costs of providing, operating, maintaining, and enforcing the roadways and other Airport ground transportation facilities that they use. Most other commercial ground transportation services doing business on the Airport pay fees that are related to the volume of business they conduct on the Airport or the number of trips they make on Airport roadways. There is also a concern with a few limousine operators improperly soliciting passengers in the baggage claim area.

Charter Buses

The major concern with charter bus operations is the need to improve the coordination among operators serving cruise ship passengers. At present, cruise ship agents indicate when they have a passenger group assembled and request that the bus operator dispatch a bus to a specific terminal. Unfortunately, the bus operators cannot always confirm that there is empty curb space at the terminal, or that this curb space will remain available during the interval between the time the bus leaves the hold area (which, as noted, is 3 miles from Terminal 1, a travel time of approximately 10 minutes) and arrives at the terminal.

In addition, as noted above, the per-trip fees charged the charter buses are monitored and collected using an honor system. At other airports, the collection of commercial vehicle fees using an honor system has led to a severe under-reporting of trips and under-payment of fees.

5. Alternative Commercial Vehicle Business Models Considered

General Commercial Vehicle Models

Jacobs Consultancy has identified three typical commercial vehicle business or management models used at other airports, including (1) Open Access Models, (2) Exclusive or Semi Exclusive Access Models, and (3) Hybrids of the previous two models. This section summarizes the characteristics and implications of these three models.

Open Access Model

Characteristics of an open-access model include:

- Taxicabs, for-hire vehicles, and other commercial vehicles and their drivers are licensed by city/state agencies that establish minimum operating standards including vehicle age limit, vehicle equipment, drivers' training program, and drivers' appearance. Any properly licensed vehicle operated by a licensed driver may pick up customers on the airport.
- All licensed taxicabs (or vans) can pick up passengers on the airport, which may lead to an imbalance between the supply and demand of taxicabs. When the number of waiting taxicabs exceeds the demand for such service drivers experience longer wait times for fares and make few trips per day, resulting in their receiving less revenue on a daily or annual basis.
- With this model, the airport, or a third party contractor, is responsible for day-to-day taxicab operations including enforcing airport rules and vehicle dispatching and inspection.

Airport staff, or their representatives, interact with all drivers, permit holders, and vehicle owners. The airport incurs all costs of commercial ground transportation management and operations.

- Typically, commercial vehicle fees are paid on a per-trip basis (access fee) with an additional airport annual permit fee often established.

Exclusive or Semi-exclusive Access Model

Characteristics of an exclusive or semi-exclusive access operating model include:

- The airport awards, through a competitive process, a concession contract to one or more companies who are responsible for providing, operating, and maintaining the agreed upon transportation service in accord with the terms of their contract. Airport staff interact only with the individual concessionaire(s) as needed to resolve issues. Thus, compared to an open-access model, significantly less staff (either airport or third-party contractor) time is required to oversee and manage commercial vehicle operations.
- The airport usually establishes higher standards for vehicles and drivers (e.g., alternative fuel vehicles, credit card acceptance, GPS equipped, regular customer service training) than required by the local regulatory agency, which results in a higher level of customer service.
- Since only vehicles operated by the selected concessionaire(s) are allowed to pick up airport passengers, the supply and demand for the transportation service (e.g., taxicabs) is typically balanced to best use available resources while meeting established maximum customer wait time standards. However, with this model the drivers and companies not selected are not able to pick up on-demand airport passengers.
- The concessionaire(s) is responsible for all aspects of day-to-day taxicab operations and service including driver training, vehicle inspection, dispatching and curbside management. Thus the airport's operating expense and management costs are limited to oversight of the concessionaire(s).
- The concessionaire(s) pays the greater of a minimum annual guaranteed (MAG) amount or a fee calculated according to the volume of airport-related business (e.g., a percent of gross receipts or a fee per deplaned passenger). These fees typically generate revenues that exceed the airport's operating cost for accommodating those vehicles.

Hybrid Model

With hybrid models, which are variations or combination of the open and exclusive access models, the airport may:

- Award a separate concessionaire contract by individual terminal or by portions of either side of a terminal.
- Establish minimum qualifications and financial capabilities for prospective taxicab companies, which may exceed those of the city, county, or other agency responsible for

taxicab regulations, and allow all taxicabs/taxicab companies meeting the airport standard to pick up airport passengers.

- Operating with an open access system, restrict size of the taxicab hold area, and deny entry to any additional drivers when the hold lot is full, (e.g., Miami International). However, this might result in vehicles waiting in nearby parking lots or along the side of the roadways.
- Restrict the number of taxicabs allowed to operate on the airport by using a lottery system or awarding a limited number of medallions.
- Under an open access system, establish rules restricting drivers to serve the airport only every *n*th day or restrict the number of issued permits.
- Awarding a concession contract but requiring the concessionaire to allow a certain percentage of number of non-concession vehicles to pick up customers on the airport.

Models Considered for Each Commercial Vehicle Service

This section presents the business models considered for each type of commercial vehicle service.

Potential Models for Managing Taxicabs

- **T-1** One concessionaire provides and manages taxicab services with provision for independent operators. This is the existing model.
- **T-2** A single taxicab company is responsible for providing and managing all taxicab services. There is no requirement that independent operators be granted access to Airport passengers.
- **T-3** One or more taxicab concessionaires are responsible for providing taxicab vehicles. A third party-contractor (who is not a taxicab operator) is responsible for managing and dispatching taxicab services.
- **T-4** BCAD implements taxicab driver and vehicle standards exceeding those of the County. All taxicabs holding BCAD authorization (and meeting BCAD standards) can pick up passengers. A third-party-contractor (who is not a taxicab operator) is responsible for managing and dispatching taxicab services.

Potential Models for Managing Shared-ride Vans

- **SRV-1** A single concessionaire provides and manages both shared-ride van and on-demand private sedan services. This is the existing model and is the same model as PCars-1 below.
- **SRV-2** A single concessionaire is awarded a contract to provide and manage just shared-ride van services.

- **SRV-3** A single concessionaire is awarded a contract to provide and manage just shared-ride van services. A third-party contractor (who is not a shared-ride van operator) is responsible for greeting passengers, staffing the curb, and loading passengers into the vans.
- **SRV-4** Two (or more) concessionaires are both allowed to provide and manage competing shared-ride van service. No third-party contractor is required as each concessionaire is responsible for their services.
- **SRV-5** A single concessionaire is awarded a contract to provide and manage both shared-ride service and on-demand private sedan service. A third-party contractor (who is not a shared-ride van or private car service operator) is responsible for greeting passengers, staffing the curb, and loading passengers into the vans and private cars.

Potential Models for Managing On-demand Private Cars

- **PCars-1** A single concessionaire provides and manages both shared-ride van and on-demand private sedan services. This is the existing model and is the same model as SRV-1 above.
- **PCars-2** A single concessionaire is awarded a contract to provide and manage just on-demand private cars.
- **PCars-3** A third-party contractor is responsible for greeting passengers seeking private car service, and dispatching waiting cars to the curbside. Cars would only remain at the curb when actively loading passengers and their baggage. There could be one, two, or more businesses contracted to provide on-demand private car service.
- **PCars-4** On-demand private car service is not available at the Airport. Arriving passengers may choose taxicabs or pre-arranged ground transportation services.

Potential Models for Managing Charter Buses/Vans (including cruise ship buses)

- **Bus-1** Airport staff are responsible for managing and controlling charter bus operations with informal assistance from representatives of one of the major bus operators. (This is the existing model.)
- **Bus-2** A third party contractor is retained to manage and control bus operations at the Airport, including dispatching buses to the terminals and curbside controls, under the supervision of Airport staff.
- **Bus-3** Create a ‘cruise bus command post’, which, during selected hours on busy weekend days, would provide a forum promoting improved coordination on a real-time basis among the cruise ship company representatives and the two contracted charter bus operators. This would allow the bus operators to ensure that buses are only dispatched to curbsides with available loading positions while meeting the needs of the cruise ship operators. It would allow provide for improved control of small independent charter bus operators that infrequently serve the Airport.

Baggage Claim Ground Transportation Counters

- **GTC-1** BCAD provides staffed ground transportation counters in each terminal. At these counters arriving passengers could obtain information about the available transportation services at the Airport, make a reservation or buy a ticket (if needed), and obtain directions to local destinations/services. Potentially the counter could be staffed by volunteers, or by a third-party contractor to allow for the sale of tickets or making reservations. Depending on the selected model, the third-party contractor could be the same entity responsible for control of the curbsides and loading passengers into vehicles.

Evaluation

Tables 1 through 4 summarize a qualitative evaluation of the options described above for taxicabs, shared-ride vans, private car service, and charter buses. These tables present (1) summaries of the responsibilities of key parties in the agreement (the concessionaire, a third-party management company, if applicable, and BCAD). The tables also assess each option against the following criteria:

- **Cost implications to BCAD.** Whether the option increases or reduces BCAD's costs of accommodating commercial ground transportation services.
- **Change to BCAD non-airline revenues.** Whether the option increases or reduces revenues collected from commercial ground transportation services.
- **Ability to efficiently manage commercial vehicles.** Whether the option increases or decreases BCAD's ability to efficiently manage commercial ground transportation services.
- **Anticipated industry response.** The expected response of existing and, if applicable, new operators to implementation of the option.
- **Anticipated customer response.** Whether the option will have an affect on airline passengers' perception of the commercial vehicle services available and corresponding levels-of-service.

Table 1

EVALUATION OF ALTERNATIVE COMMERCIAL VEHICLE OPERATING MODELS—TAXICABS

Commercial Vehicle Business Arrangements
Fort Lauderdale-Hollywood International Airport

Potential Models for Managing Taxicabs				
	T-1	T-2	T-3	T-4
	<p>One taxicab concessionaire provides and manages taxicab services with provision for independent operators. This is the existing model.</p>	<p>A single taxicab company is responsible for providing and managing all taxicab services. There is no requirement that independent operators be granted access to Airport passengers.</p>	<p>One or more taxicab concessionaires are responsible for providing taxicab vehicles. A third party-contractor (who is not a taxicab operator) is responsible for managing and dispatching taxicab services.</p>	<p>BCAD and Port Everglades implement standards higher than those of the County. All taxicabs holding BCAD authorization (and meeting the higher standards) can pick-up passengers. A third party-contractor (who is not a taxicab operator) is responsible for managing and dispatching taxicab services.</p>
Taxicab concessionaire's responsibilities	Vehicle and driver inspection, dispatching, curbside management, greeting customers/assigning them to waiting cabs. Inspection and permitting of independent operators.	Vehicle and driver inspection, dispatching, curbside management, greeting customers/assigning them to waiting cabs.	Providing vehicles meeting BCAD standards in accord with contract.	Not applicable
Third-party contractor's responsibilities	None required	None required	Vehicle and driver inspection, dispatching, curbside management, greeting customers/assigning them to waiting cabs.	Vehicle and driver inspection, dispatching, curbside management, greeting customers/assigning them to waiting cabs.
Relevant responsibilities of BCAD Landside staff	Oversight of a single concessionaire. Establishing policies and overseeing enforcement.	Oversight of a single concessionaire. Establishing policies and overseeing enforcement.	Oversight of taxicab concessionaires and the third-party contractor. Establishing policies and overseeing enforcement.	Oversight of third-party contractor and providing enforcement of individual operators. Establishing policies and overseeing enforcement.
Cost implications to BCAD	No change	No change	Increased costs due to use of third-party contractor.	Increased costs due to use of third-party contractor and maintaining fee collection system.
Change to BCAD's non-airline revenues	Maintains existing revenue, prospective contractors may reduce bids depending on the proportion of independent operators allowed.	Generates additional revenue, as exclusive contract is more lucrative and is expected to attract higher bid amounts.	Generates less revenue because it is not as attractive or lucrative as the existing contract.	Assuming implementation of full cost-recovery fees, generates higher revenue than existing concession agreement.

Table 1 (continued)

EVALUATION OF ALTERNATIVE COMMERCIAL VEHICLE OPERATING MODELS—TAXICABS

Commercial Vehicle Business Arrangements
Fort Lauderdale-Hollywood International Airport

Potential Models for Managing Taxicabs				
	T-1	T-2	T-3	T-4
	One taxicab concessionaire provides and manages taxicab services with provision for independent operators. This is the existing model.	A single taxicab company is responsible for providing and managing all taxicab services. There is no requirement that independent operators be granted access to Airport passengers.	One or more taxicab concessionaires are responsible for providing taxicab vehicles. A third party-contractor (who is not a taxicab operator) is responsible for managing and dispatching taxicab services.	BCAD and Port Everglades implement standards higher than those of the County. All taxicabs holding BCAD authorization (and meeting the higher standards) can pick-up passengers. A third party-contractor (who is not a taxicab operator) is responsible for managing and dispatching taxicab services.
Ability to provide superior customer service	Equivalent to today. Concessionaire has limited ability to control quality of independent operators.	Better than today as a concessionaire, selected through RFP, is (a) better able to control driver and vehicle quality, and (b) required to provide services listed in proposal.	Better than today as the concessionaires, selected through RFP, are (a) better able to control driver and vehicle quality, and (b) required to provide services listed in proposal.	Depends on quality and enforcement of new standards. Standards equivalent to (or higher) than today's will result in equivalent or higher service. Vehicle maintenance and driver behavior are likely to bare meet minimum standards established by BCAD.
Ability to efficiently manage commercial vehicles	Equivalent to today. Concessionaire must oversee their own vehicles/drivers as well as those of the independent operators.	Better than today as concessionaire need only control their own drivers/vehicles.	Equivalent to slightly worse than today. Management contractor has limited ability to control drivers and operations.	Possibly worse than today, as third-party contractor must interact with individual drivers, not concessionaires or taxicab companies. Third-party contractor can deny access to drivers not meeting new standards.
Anticipated industry response	Favored by existing concessionaire, neutral response by independent operators.	Favored by existing concessionaire, opposed by independent operators.	Uncertain. Potentially opposed by existing concessionaires and independent operators.	Independent operators will favor open access but will oppose higher standards. Opposed by existing concessionaire.
Anticipated customer response	No change.	Should recognize improved service.	Should recognize improved service.	Depends on quality of implemented standards. With higher standards, customers should recognize improved service.
Example airport operators	FLL	SNA	IAD	PHL

Table 2

EVALUATION OF ALTERNATIVE COMMERCIAL VEHICLE OPERATING MODELS—SHARED-RIDE VANS

Commercial Vehicle Business Arrangements
Fort Lauderdale-Hollywood International Airport

Potential Models for Managing Shared-Ride Vans					
	SRV-1	SRV-2	SRV-3	SRV-4	SRV-5
	A single shared-ride van concessionaire provides and manages both shared-ride van and on-demand private sedan services. This is the existing model.	A single shared-ride van concessionaire is awarded a contract to provide and manage just shared-ride van services.	A single concessionaire is awarded a contract to provide and manage just shared-ride van services. A third-party contractor (who is not a shared ride van operator) is responsible for greeting passengers, staffing the curb, and, loading passengers into the vans.	Two (or more) shared-ride van concessionaires are allowed to provide and manage competing shared-ride van service. Provides back-up service, if one operator ceases operations.	A single concessionaire is awarded a contract to provide and manage both shared-ride service and on-demand private sedan service. A third-party contractor (who is not a shared-ride van or private car service operator) is responsible for greeting passengers, staffing the curb, and loading passengers into the vans and private cars.
Shared-ride van concessionaire's responsibilities	Vehicle and driver inspection, dispatching, greeting van and private vehicle customers, assigning them to a waiting van or private car. Providing a customer service representative at each terminal.	Vehicle and driver inspection, dispatching, greeting van customers, assigning them to a waiting van serving their destination. Providing a customer service representative at each terminal.	Providing vehicles meeting BCAD standards in accord with contract.	Vehicle and driver inspection, dispatching, greeting van customers, assigning them to a waiting van serving their destination. Providing a customer service representative at each terminal.	Providing vehicles meeting BCAD standards in accord with contract.
Third-party contractor's responsibilities	None required	None required	Greeting passengers, potentially at counter in baggage claim, and directing them to the appropriate vehicle.	None required	Greeting passengers, potentially at counter in baggage claim, and directing them to the appropriate vehicle.
Relevant responsibilities of BCAD Landside staff	Oversight of single concessionaire. Establishing policies and overseeing enforcement.	Oversight of single concessionaire. Establishing policies and overseeing enforcement.	Oversight of single concessionaire and a third-party contractor. Establishing policies and overseeing enforcement.	Oversight of two concessionaires. Establishing policies, overseeing enforcement, and addressing potential conflicts between the van operators.	Oversight of single concessionaire and a third-party contractor. Establishing policies and overseeing enforcement.
Cost implications to BCAD	No change	No change	Increased costs due to use of third-party contractor.	No significant change	Increased costs due to use of third-party contractor.
Change to BCAD's non-airline revenues	No change	No significant change, potentially less revenue due to separation of contracts.	Less revenues than today because (a) concession is less attractive if a third party entity interacts with/greets their customers (sells their service), and concessionaire fees may not equal today's concession fees plus costs of third-party contractor.	Less net revenue because each concessionaire will serve fewer customers than today's single concessionaire but will have equivalent operating costs. Depends on number of potential bidders.	Less revenues than today because (a) concession is less attractive if a third party entity interacts with/greets their customers (sells their service), and (b) concession fees may not equal today's concession fees plus costs of third-party contractor.

Table 2 (continued)

EVALUATION OF ALTERNATIVE COMMERCIAL VEHICLE OPERATING MODELS—SHARED-RIDE VANS

Commercial Vehicle Business Arrangements
Fort Lauderdale-Hollywood International Airport

Potential Models for Managing Shared-Ride Vans					
	SRV-1	SRV-2	SRV-3	SRV-4	SRV-5
	A single shared-ride van concessionaire provides and manages both shared-ride van and on-demand private sedan services. This is the existing model.	A single shared-ride van concessionaire is awarded a contract to provide and manage just shared-ride van services.	A single concessionaire is awarded a contract to provide and manage just shared-ride van services. A third-party contractor (who is not a shared ride van operator) is responsible for greeting passengers, staffing the curb, and, loading passengers into the vans.	Two (or more) shared-ride van concessionaires are allowed to provide and manage competing shared-ride van service. Provides back-up service, if one operator ceases operations.	A single concessionaire is awarded a contract to provide and manage both shared-ride service and on-demand private sedan service. A third-party contractor (who is not a shared-ride van or private car service operator) is responsible for greeting passengers, staffing the curb, and loading passengers into the vans and private cars.
Ability to provide superior customer service	Equivalent to today	Better than today; customers unlikely to be confused by higher price car service.	Lower than today. Customers must stop at counter, then proceed to correct van. Single stop service is preferable.	If multiple concessionaires serve same destinations, they may compete over potential customers.	Lower than today. Customers must stop at counter, then proceed to correct van. Single stop service is preferable.
Ability to efficiently manage commercial vehicles	Equivalent to today	Slightly better than today, less curb space may be required (assuming private cars are not allowed to park at the curb, but only allowed to pick up waiting customers).	Slightly better than today, less curb space may be required (assuming private cars are not allowed to park at the curb, but only allowed to pick up waiting customers).	Worse than today. Significant effort required to separate competing companies and additional curb space is required.	Equivalent to worse than today. Contractor responsible for separating competing interests, but able to only enforce minimum standards.
Anticipated industry response	Favored by existing concessionaire.	Opposition from existing concessionaire but favored by potential new concessionaires.	Opposed by existing (or other potential) concessionaire if another entity greets their customers.	Opposed by existing (or other potential) concessionaire because of lower net revenues.	Opposed by existing (or other potential) concessionaire if another entity greets their customers.
Anticipated customer response	No difference	Concern by those who may have, in the past, been provided a private car instead of a van.	Concern by those who may have, in the past, been provided a private car instead of a van.	Concern by those who may have, in the past, been provided a private car instead of a van.	Some concern if third-party has difficulty managing curbsides.
Example airport operators	FLL	IAH	OAK	DFW	Unknown

Table 3

EVALUATION OF ALTERNATIVE COMMERCIAL VEHICLE OPERATING MODELS—PRIVATE CAR SERVICES

Commercial Vehicle Business Arrangements
Fort Lauderdale-Hollywood International Airport

Potential Models for Managing Private Car Service				
	Pcars-1	Pcars-2	Pcars-3	Pcars-4
	A single concessionaire provides and manages both private car services and on-shared-ride van services. This is the existing model.	A single concessionaire is awarded a contract to provide and manage just on-demand private cars.	A third-party contractor is responsible for greeting passengers seeking private car service and dispatching waiting cars to the curbside. Cars would only remain at the curb when actively loading passengers and their baggage.	On-demand private car service is not available at the Airport. Arriving passengers may chose taxicabs or pre-arranged ground transportation services
Private car service concessionaire's responsibilities	Assisting customers desiring private car service, assuring an adequate supply of cars. Providing a customer service representative.	Vehicle and driver inspection, dispatching, curbside management, greeting customers/assigning them to waiting cabs.	Private cars could be provided by a concessionaire or called by the third-party contractor. Greeting passengers and dispatching vehicles.	Not applicable
Third-party contractor's responsibilities	None required	None required	None required	None required
Relevant responsibilities of BCAD Landside staff	Oversight of single concessionaire.	Oversight of single concessionaire.	Oversight of a third-party contractor.	Not applicable
Cost implications to BCAD	No change	No change	Increased costs due to use of third-party contractor.	No change or lower costs
Change to BCAD's non-airline revenues	No change	No significant change, potentially less revenue due to separation of contracts.	Less revenue, plus costs of third-party contractor.	Potentially less revenue, as concession is eliminated, but should result in increased revenue from other services.
Ability to provide superior customer service	Equivalent to today	Better than today; customers unlikely to be confused between car service and van service; no opportunity for upselling to private cars.	Equivalent to marginally worse than today, as customers may have to wait for vehicle.	Worse than today, service not available.
Ability to efficiently manage commercial vehicles	Equivalent to today	Two operators may require more space than one.	Much better. Less curb space is required and less time spent separating competing services.	Much better. Less curb space is required and less time spent separating competing services.
Anticipated industry response	Favored by existing concessionaire, neutral response by independent operators.	Mild opposition from existing concessionaire (or other potential concessionaires) as staffing costs will increase.	Potentially opposed by existing and prospective concessionaires as a third party greets their customers.	Strongly opposed by existing concessionaire and its drivers. Favored by operators of other ground transportation services.
Anticipated customer response	No difference	No difference	No difference	Concern by those expecting to find on-demand private car service at the curb. Less possible confusion for other patrons.
Example airport operators	FLL	PHX	DEN	SFO

Table 4

EVALUATION OF ALTERNATIVE COMMERCIAL VEHICLE OPERATING MODELS—CHARTER BUSES

Commercial Vehicle Business Arrangements
Fort Lauderdale-Hollywood International Airport

Potential Models for Managing Shared-Ride Vans			
	BUS-1	BUS-2	BUS-3
	Airport staff are responsible for managing and controlling charter bus operations with informal assistance from representatives of one of the major bus operators. This is the existing model.	A third party contractor is retained to manage and control bus operations at the Airport, including dispatching buses to the terminals and curbside controls, under the supervision of Airport staff.	Create a 'cruise bus command post' to facilitate improved coordination on a real-time basis among the cruise ship company representatives and the two contracted charter bus operators, and to manage infrequent charter bus operators. The command post would be facilitated by the Ground Transportation Management Contractor.
Third-party contractor's responsibilities	None required	Manage curbspace reserved for charter buses. Dispatch buses to curbside when passengers are ready and space is available.	Facilitate cruise bus command post. Mediate disagreements between bus operators. Manage infrequent charter bus companies.
Relevant responsibilities of BCAD			
Landside staff	Manage and control charter bus operations.	Oversight of a third-party contractor.	Oversight of a third-party contractor.
Cost implications to BCAD	No change	Increased costs due to use of third-party contractor for dispatching and management duties.	Increased costs due to use of third-party contractor, but lower costs than if the contractor also had dispatching responsibilities.
Change to BCAD's non-airline revenues	No change	No change	No change
Ability to provide superior customer service	Equivalent to today	Better than today because of improved ability to ensure that curbspace is available for buses to park (buses will not bypass waiting customers).	Better than today because of improved ability to ensure that curbspace is available for buses to park (buses will not bypass waiting customers).
Ability to efficiently manage commercial vehicles	Equivalent to today	Better than today because of improved ability to ensure that curbspace is available for buses to park.	Better than today because of improved ability to ensure that curbspace is available for buses to park.
Anticipated industry response	None (continuation of today's operation).	Opposition because bus companies would be handing over control of when their buses could pick up their passengers.	Minimal opposition because while bus companies would be giving up some control in certain situations, they would still predominately be able to operate as they do today.
Anticipated customer response	No difference	Customers, who are predominately infrequent users, will likely not notice any change.	Customers, who are predominately infrequent users, will likely not notice any change.
Example airport operators	FLL	YYC	Unknown

6. Recommended Commercial Vehicle Business Arrangements

This section describes the form of business arrangement that it is recommended be used for each type of commercial ground transportation service. It also presents recommended changes to the commercial vehicle fees and the method used to monitor and collect some fees. Lastly, this section describes the actions required to implement each business arrangement and other changes described in this section.

Ground Transportation Management Contractor

It is recommended that, using a competitive selection and award process, BCAD enter into a multi-year management contract with a qualified business (i.e., a ground transportation management contractor, also referred to as the Contractor or third-party contractor) that would serve as an extension of BCAD's ground transportation staff. As described in subsequent paragraphs, this contractor would be responsible for (1) day-to-day control and enforcement of all aspects of on-demand taxicab operations, (2) communication with taxicab drivers, (3) staffing and control of the proposed ground transportation information counters, (4) ensuring that taxicabs and shared-ride van operators remain in their designated curbside areas and do not leave their vehicles, (5) assuring a "customer friendly" environment, and (6) assisting with the coordination of charter/cruise ship buses, and issuing AVI tags to authorized commercial vehicle operators and mounting AVI tags on authorized vehicles. This Contractor would operate under the direct supervision and control of BCAD staff who would continue to be responsible for establishing policies, fees, customer service standards, and overall enforcement and management of commercial ground transportation services at the Airport. Any business or entity currently operating or affiliated with an operator of taxicab services in south Florida would be prohibited from serving as the ground transportation management contractor.

Implementation Steps: It is recommended that BCAD award the landside operations contract using a request for letters of interest (RLI) or request for proposal (RFP) process allowing the County to award the contract to the firm it ranks as being best qualified (rather than the least expensive). Prior to issuing the RLI/RFP, BCAD staff should (1) document the services that it expects the landside operations contractor to provide, (2) document the customer standards (by type of commercial vehicle service) that it expects the contractor to maintain, (3) the corresponding responsibilities of BCAD and its staff, (4) the facilities to be made available to the contractor and those that it will oversee, and (5) the staff positions (but not hours) to be furnished by the contractor. This material would be attachments to the RLI/RFP, which would require the contractor to submit the hourly rates (and build up of these rates) for each staff position, the proposed management fee, and a draft annual budget.

Taxicab Services

After reviewing the potential business models, it is recommended that BCAD implement an open access business model (Model T-4) along with higher standards for taxicabs serving the Airport and Port Everglades. This model allows BCAD to (a) improve customer service by consistently providing higher-quality taxicabs, (b) allow all qualified taxicab operators to do business on the Airport, (c) eliminate perceived conflicts of interest that arise when one taxicab

company is responsible for dispatch and control of a competing company, and (d) assure an adequate supply of taxicabs. Under this model all properly licensed taxicab operators meeting the BCAD/Port Everglade's taxicab standards (yet to be developed) would be allowed to pick up on-demand customers at the Airport. The development and strict and active enforcement of these new taxicab standards are expected to be the key factors in determining the successful implementation of this business model.

When implemented along with full cost-recovery per-trip fees for taxicabs (see Appendix B), this business model is expected to generate up to \$2.46 million in annual revenue and require up to \$1.57 million in additional BCAD expenses (a portion of the cost of the Ground Transportation Management Contractor), resulting in a net revenue of approximately \$880,000. This net revenue exceeds the existing concession fee currently paid by B&L (which was \$537,900 in FY 2009).

Taxicab standards. It is recommended that BCAD staff, in cooperation with Port Everglades staff, develop standards for taxicab vehicles and drivers (referred to as BCAD standards) that would be applicable to all taxicabs seeking to operate at the Airport and potentially the Port. These standards would be in addition to any minimum standards established by the County's Permitting, Licensing, and Consumer Protection Division (referred to as County standards). Appendix A provides an initial list of the standards (e.g., vehicle age/mileage limits) to be established by BCAD. Currently, Broward County provides periodic mechanical inspections of taxicabs as part of the County permitting process. If the County process is consistent with, or can be modified to become consistent with, higher BCAD/Port Everglades taxicab standards, this arrangement can be maintained. It is also suggested that BCAD provide for a regular or bi-annual program for driver customer training and testing. In other communities, taxicab driver training and testing addresses topics such as local points of interest/regional knowledge, communicating with customers/customer service tips, defensive driving skills, and airport rules and regulations.

Day-to-day taxicab operations. Daily taxicab operations at the Airport would be similar to the existing operations except that the hold area control, vehicle visual inspection, curbside control and enforcement, and customer assistance now performed by B&L Services would be the responsibility of the ground transportation management contractor.

- **Hold lot operations.** Taxicabs would first report to the hold lot where contractor staff would assure they queue in a first-in/first-out manner. Contractor staff would visually inspect the vehicles (e.g., missing hub caps, broken head lights or signals, malfunctioning air conditioning systems, dents exceeding BCAD standards, and driver attire) but would not perform any mechanical inspections. When requested, contractor staff would direct taxicabs to the terminal curbsides.
- **Curbside operations.** Contractor staff located at taxicab stands (or podiums) located at each terminal would assure that an adequate supply of cabs is available to serve arriving customers, request that additional taxicabs be dispatched to their stand in response to customer needs (or anticipated needs), solicit and greet prospective customers, provide

information about taxicab service and fares, assign customers to the taxicab at the head of the queue, and potentially provide customers with comment cards. Contractor staff would not be allowed to assist with the loading of baggage into taxicabs.

- **BCAD fees.** All taxicabs authorized to operate on the Airport would be required to have a valid BCAD decal and AVI tag. The AVI tag would be used to monitor the trips made by individual vehicles as they leave the hold lot, with monthly bills submitted to the taxicab company.
- **Comment cards.** Subject to BCAD approval, it is envisioned that the postage-paid comment cards would be distributed to each customer. These cards would provide customers with (1) useful information about the region or major destinations (and potentially afford an opportunity for advertising revenues) and (2) an opportunity to compliment individual drivers or lodge a complaint about the service they received. All comment cards would be returned to the landside contractor who would be responsible for providing monthly summary of the comments received, and responding, on behalf of BCAD, to any compliments or complaints.

The ground transportation management contractor would be responsible for providing radio communication between the hold lot and podiums. The landside operator would also be responsible for the posting of notices to drivers alerting them of unusual events, construction activities affecting their operations, changes in rules and regulations, and other information.

Implementation Steps. As noted a key step in the implementation of the recommended taxicab service improvements is the establishment of taxicab standards. It is recommended that:

- Prior to presenting this program to the taxicab industry or the County Board of Supervisors an initial draft of these standards, or key aspects of these standards, be developed.
- BCAD staff indicate to the industry and County supervisors that the transition from a semi-exclusive operating model to an open access model is dependent upon the successful implementation and enforcement of these standards.

It is anticipated that the independent operators will oppose any changes to taxicab standards such as those that reduce vehicle age/mileage limits, require investment in equipment (e.g., computerized dispatching/secure credit card acceptance), or increase insurance liability limits. Dilution of the standards desired by BCAD will lead to a reduction in the quality of taxicab service offered at the Airport. However, BCAD may wish to consider phasing in certain standards over time, based on input from the drivers.

Thus the key implementation steps are (1) preparing the proposed taxicab vehicle and driver standards, (2) establishing penalties and appeals process for violations of these standards, (3) reviewing the proposed standards with representatives of the taxicab operators, (4) establishing a implementation schedule for the standards (in coordination with selection of a ground transportation management contractor), (5) establishing the program for BCAD-mandated taxicab vehicle maintenance inspection, and (6) establishing the program for BCAD-required

taxicab driver training and testing. Section 8 of this report presents the suggested sequence of the proposed implementation steps.

Shared-ride Services

It is recommended that BCAD award a single concession contract for the provision of on-demand, door-to-door, shared-ride service, and as noted in the following section, that private car service be discontinued. This recommendation is made to address the passenger confusion that now results from one concessionaire offering two very different transportation services from the same podium, and using sedans to provide both shared-ride and private car services. It is recommended that the shared-ride van service be provided exclusively in vans capable of transporting a minimum of 8 passengers and their baggage. It is recommended that the selected shared-ride services concessionaire be required to:

1. Pay BCAD the greater of an agreed upon fee per deplaned passenger or a MAG amount be submitted by the concessionaire as part of their competitive proposal.
2. Provide shared-ride customers with service meeting or exceeding the minimum standards established by BCAD (e.g., maximum number of enroute stops, maximum customer time a customer can be required to wait after requesting service or boarding a vehicle, destinations served, hours of operations, and employee attire and behavior standards).
3. Provide the sufficient number late model vans dedicated to serving arriving passengers. (The contract would specify the vehicle characteristics, provision for use of alternative fuels, and other details.)
4. Obtain and install BCAD-issued AVI tags for all authorized vans operated by the concessionaire on the Airport. The AVI tags would be used to monitor the number of the shared-ride vehicle trips but not to calculate the fees due BCAD.
5. Maintain the holding area used by its vehicles.
6. Dispatch its vehicles from the holding area to each terminal building in response to passenger demands.

The selected concessionaire would be (1) granted the exclusive right to provide on-demand, shared-ride transportation service, (2) allocated sufficient curbside space at each terminal to allow for the concurrent loading of at least two vans, (3) allowed to have properly uniformed customer service representatives stationed adjacent to their designated curbside spaces (e.g., at podiums), and (4) use the shared-ride van hold area provided by BCAD. If mutually agreeable, the concessionaire would be allowed to lease counter space located in the baggage claim areas of each terminal where their employees could greet potential customers and provide shared-ride service and fare information. The concession contract would specify the expected behavior by concessionaire employees or representatives, required minimum hours of operations, restrictions on solicitation of business by concessionaire employees or representatives, and if ticket sales are allowed.

It is recommended that customers desiring shared-ride service be directed to the designated curbside areas, where customers could board a waiting van or wait for the arrival of a van serving their destination. If mutually agreeable between BCAD and the shared-ride concessionaire, the concessionaire could lease space in baggage claim areas to provide staffed counters. It is also recommended that BCAD require the selected concessionaire to implement a marketing and customer outreach program to encourage the use of shared-ride vans for transportation to the Airport as well as from the Airport.

In FY 2009, the shared-ride van/private car concessionaire paid BCAD \$488,800 in concession fees (for the privilege to offer both the shared-ride van and private car services). Based on the analysis provided in Appendix B, it is estimated that BCAD's annual costs to accommodate shared-ride vans will be approximately \$490,000 primarily due to the allocated portion of the depreciated capital costs, operating and overhead expenses, and implementation of the AVI system. Therefore, it is expected that the concession fee for the revised contract to provide just shared-ride services should meet or exceed that amount.

Implementation Steps. It is recommended that BCAD develop a draft RFP/RLI for the proposed shared-ride concession. The RFP/RLI should present the minimum customer services standards that concessionaire will be required to maintain, the manner in which the service is to be provided to customers, the facilities to be made available by the County, and the fees to be paid by the concessionaire. After completing the draft RFP/RLI, BCAD should conduct an informational meeting with the shared-ride industry to solicit suggestions and comments regarding the proposed standards, contract terms, and other details.

Private Car Services

It is recommended that BCAD discontinue on-demand private car service at the Airport. This recommendation is made in conjunction with the recommendation that BCAD (in cooperation with the Port) implement higher standards for taxicabs and drivers. Typically, on-demand private car service has been provided at airports with perceived poor taxicab services or insufficient taxicabs. With the implementation of higher taxicab standards and the availability of additional taxicabs, it is believed this perception would no longer apply at the Airport. In addition, as described above in Section 4, "Concerns with Existing Business Arrangements", discontinuation of the service will remove customer confusion as to the availability of the service (which is offered only at a limited number of US airports), remove the confusion regarding fares (where a private car could be offered for the same, or lower, fare than a shared-ride van), and increase BCAD's ability to monitor the fares charged shared-ride van customers. The elimination of private car service would also improve curb space availability and eliminate or significantly reduce confrontations that now occur between drivers of competing transportation services.

If, in the future, should BCAD management wish to re-introduce private car service, it is recommended that BCAD award a separate concession contract with the selected contractor only allowed to provide private car service. Operators bidding on the contract would need to

demonstrate that they have no business relationships with the ground transportation management contractor or shared-ride van concessionaire.

As stated above, in FY 2009 BCAD received \$488,800 in concession fees from the shared-ride van/private car service operator. By discontinuing the private car service, these fees could reduce depending upon the concession fee associated with the new shared-ride van contract, which is expected to be \$450,000 or higher. However, as shown below in the discussion of recommendations for pre-arranged limousines and vans, the introduction of per-trip fees for pre-arranged limousines and vans is expected to offset any reduction in fees received from the shared-ride van operator.

Implementation Steps. The private car service would discontinue upon termination of the existing agreement with Yellow Airport Limousine Service and the commencement of service under the new shared-ride van contract.

Courtesy Vehicles

It is recommended that the operators of all courtesy vehicles be required to:

1. Purchase a BCAD decal for each vehicle operating on the Airport and affix this decal to the vehicle as directed by BCAD staff or representatives
2. Obtain and install BCAD-issued AVI tags on all courtesy vehicles authorized to operate on the Airport, and pay a deposit for these tags. The amount of the operator's deposit could equate to one month's estimated commercial vehicle fees.
3. Upon receipt of monthly invoices to be issued by BCAD, pay:
 - a. For off-Airport parking businesses, pay the greater of BCAD's proposed per-trip fees or the existing privilege fees (calculated as a percentage of their gross revenues) and any fees due for exceeding the established monthly limit on courtesy vehicle trips (see Section 7).
 - b. For hotel/motel operators, pay the proposed per-trip fees and any fees due for exceeding the established monthly limit on courtesy vehicle trips (see Section 7).
 - c. For off-Airport rental car businesses, pay the existing concession fee (calculated as a set fee per contract).

All other courtesy vehicle operations and business practices are to remain unchanged.

As described in Appendix B, with this recommendation, courtesy vehicles are expected to generate up to \$772,000 in annual revenue and require up to \$196,000 in additional BCAD expenses (a portion of the costs of the AVI system and Ground Transportation Management Contractor), resulting in net revenues of approximately \$576,000. This net revenue exceeds the revenue paid to BCAD in FY 2009 by the hotel/motel operators (approximately \$500) and off-Airport parking operators (\$247,700). Furthermore, this revenue estimate represents potential

per-trip fees paid by off-Airport parking operators. If their privilege fee exceeds their per-trip fee amount, operators will actually pay the higher privilege fee, which would result in higher net revenues.

Pre-arranged Limousines/Vans

It is recommended that the operators of pre-arranged limousines/vans be required to:

1. Obtain a BCAD-issued AVI transponders or tags and pay a deposit for these tags. The amount of the deposit could equate to one month's estimated commercial vehicle fees.
2. Upon receipt of monthly invoices, pay BCAD's proposed cost recovery fees for trips where they pick up customers on the Airport. Alternatively, each operator—particularly smaller operators making fewer than 5 trips per month, could be required to provide a credit card or debit card account from which BCAD could withdraw the fees due on a monthly basis, eliminating the need for monthly invoices and assuring BCAD of prompt payment of the amounts due.

Operators of pre-arranged limousines/vans desiring to greet their customers in the baggage claim area or at the exits from the concourses would be required to (1) park in a parking garage (or other selected location if driving an over-height vehicle or other vehicle, such as a stretch limousine, that may not be able to fit into an existing garage), (2) walk to the appropriate terminal, (3) provide ground transportation information counter staff with a copy of their valid trip log or other evidence of pre-arrangement, and (4) wait for their customer in the designated driver meet/greet area to be located in the baggage claim area adjacent to the ground transportation information counter (or other location designated by BCAD). After their customer arrives, drivers could either escort them to the limousine parked in the garage, or instruct the customers to wait at the curbside with their baggage while she/he retrieves the limousine. Operators of pre-arranged limousines who do not wish to greet their customers in the baggage claim area could continue to operate as they do today (e.g., instruct customers to proceed to the curbside and hail the driver displaying the appropriate vehicle number or name). Regardless of which method the driver chooses, they would pay the per-trip fee in addition to any parking fees.

As described in Appendix B, with this recommendation, pre-arranged limousines and vans are expected to generate up to \$987,000 in annual revenue and require up to \$387,000 in additional BCAD expenses (a portion of the cost of the Ground Transportation Management Contractor), resulting in net revenues of approximately \$600,000. This net revenue exceeds the revenue paid to BCAD in FY 2009 by the pre-arranged limousine and van providers (\$16,127).

Charter Buses and Cruise Ship Buses

It is recommended that the operators of all charter buses, including cruise ship buses carrying passengers between the Airport and Port Everglades, be required to:

1. Obtain a BCAD-issued AVI tags for all buses that serve the Airport. According to BCAD staff, almost all charter buses currently serving the Airport have a vehicle permit regardless

of their frequency of service at the Airport. Therefore it is expected that these operators will all obtain AVI tags. If, in the future, there is a high number of companies and buses that infrequently serve the Airport (e.g., fewer than 10 times per month), BCAD may wish to provide temporary decals and AVI tags for those operators. Each bus operator should be required to pay a deposit equating to fees due in a typical busy month.

2. Participate in the proposed cruise ship command post or coordination committee. It is envisioned that—by facilitating communication and coordination among the cruise ship bus operators, cruise ship meet/greet staff, and BCAD staff—the command post would help improve the movement of buses and use of terminal building curbspace on the busy movement days of cruise ship passengers between the Airport and Port Everglades. The command post, which would be facilitated by staff of the ground transportation management contractor, would provide for the centralized and improved management of bus movements by having representatives of the major bus operators present in the same room, representatives of all major cruise lines available (by phone), BCAD staff on hand as appropriate (or available by phone), and part-time ground transportation management contractor staff available to observe real-time curbside conditions.
3. Pay BCAD’s proposed fees for each trip picking up or dropping off passengers.

Other aspects of the cruise ship bus operations and business practices would remain unchanged.

As described in Appendix B, with this recommendation, charter buses and cruise ship buses are expected to generate up to \$189,000 in annual revenue and require up to \$65,000 in additional BCAD expenses (a portion of the cost of the Ground Transportation Management Contractor), resulting in net revenues of approximately \$124,000. This net revenue exceeds the revenue paid to BCAD in FY 2009 by the charter bus operators (\$40,300).

Ground Transportation Information Counter

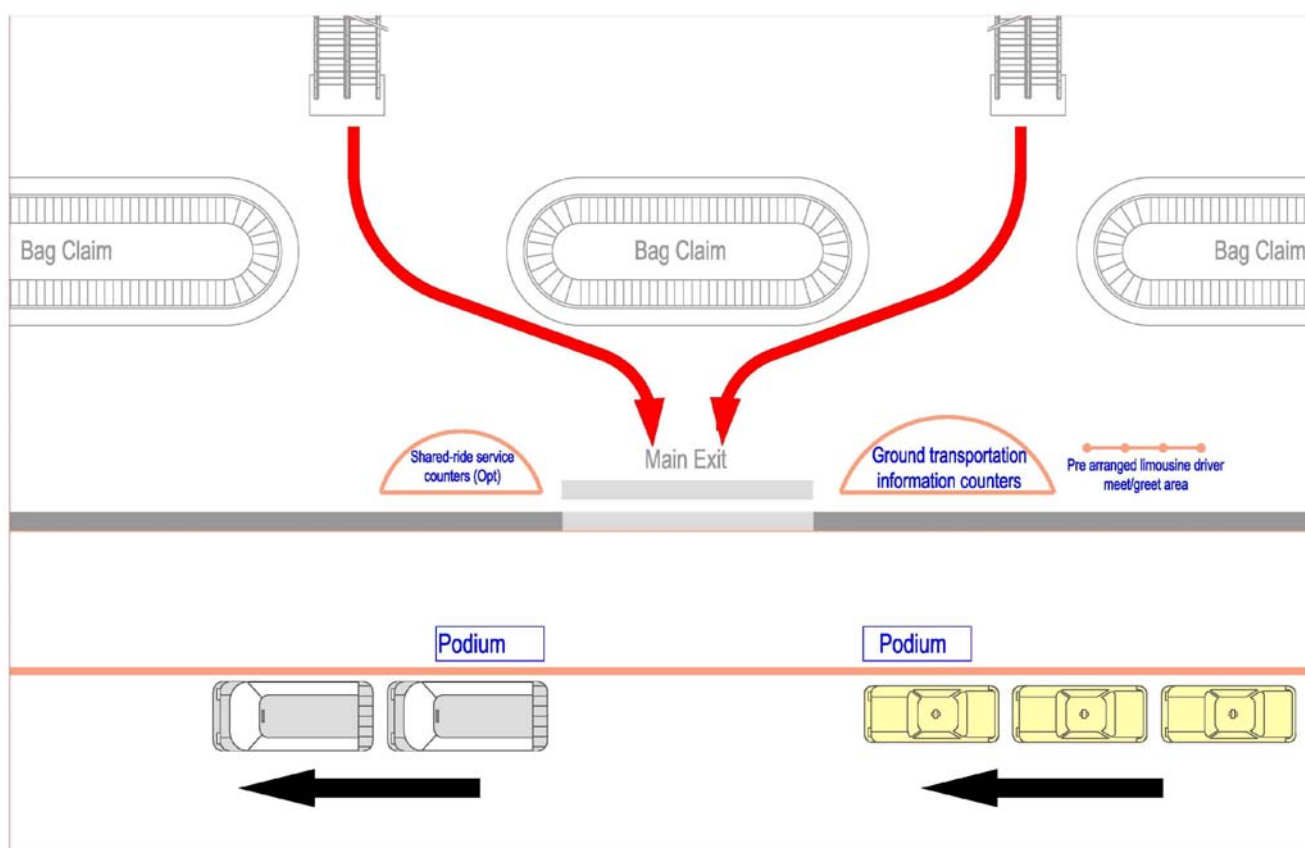
As noted in the above sections, it is recommended that BCAD establish a ground transportation information counter in the baggage claim area of each terminal, which would be staffed by employees of the ground transportation management contractor. The staff at these counters would be responsible for:

1. **Ground transportation information.** Counter staff would provide accurate and current information for each authorized ground transportation service. This information would include (a) destinations or addresses served, (b) fares including one-way and round trip fares as well as discounts available for senior citizens, children, or customer groups going to a common destination (e.g., “four can ride as cheaply as one”), (c) schedules/waiting times, and (d) service characteristics. Ideally this information would be presented in an easy-to-understand pamphlet available in multiple languages. Transportation options for passengers with special needs would also be available.
2. **Oversight of pre-arranged limousine/van driver meet/greet area.** Counter staff would be responsible for assuring that all drivers waiting for arriving customers have valid trip logs

or other evidence of prearrangement and other required documentation. Counter staff would be responsible for alerting Broward County Sheriff officers when they observe drivers improperly soliciting arriving passengers, or drivers who do not have the required documentation.

A prototypical terminal layout is shown in Figure 1, illustrating (1) the location of the curb space to be allocated to taxicabs and shared-ride vans, (2) the proposed ground transportation information counter, (3) the proposed pre-arranged limousine driver customer meet/greet area, and (4) the location of the shared-ride van information counter.

Figure 1
Conceptual Layout of Key Ground Transportation Elements



As described in Appendix B, the annual cost of the Ground Transportation Management Contractor is expected to be \$1.55 to \$2.05 million. This additional cost, however, has been included in the net revenue calculations described earlier in this section and is not expected to result in a net increase in BCAD’s costs for accommodating commercial ground transportation.

AVI System

As described in subsequent sections of this report, it is recommended that BCAD establish new commercial vehicle fees including per-trip fees and demand management fees. Section 7 of this report describes these fees.

As noted above, BCAD is in the initial phases of the design, procurement, installation and testing of an AVI system. BCAD plans to mount AVI transponders or tags on all commercial vehicles operating on the Airport. Upon its completion, the AVI system will allow BCAD to monitor and record the volume of trips made by individual commercial vehicle, and when these trips occurred. Using the data generated automatically by the AVI system, BCAD financial staff will be able to:

- Calculate the monthly per-trip fees due and invoice each company.
- Determine if, during a given month, the courtesy vehicle trips made by individual hotel/motel operators and off-airport parking companies exceeded the established limit on monthly trips, triggering penalty fees for those operators.

Based on cost estimates prepared in 2009 by BCAD's AVI system consultant, acquisition and installation of the AVI system is expected to cost approximately \$1.4 million. Annual operating expenses of the system are expected to be approximately \$100,000.

7. Proposed Commercial Vehicle Fees

As stated in earlier sections of this report, it is recommended that BCAD begin collecting fees, on a per-trip basis, from most commercial vehicles picking up passengers from the Airport. Airports in the United States charging per-trip fees overwhelmingly base those fees upon a calculation of what fees need to be for the airport to fully recover its costs of providing, operating, and maintaining the facilities used by commercial vehicles (these fees are known as cost-recovery fees). It is recommended that BCAD adopt a similar approach.

For some operators, such as off-Airport rental car and off-Airport parking operators, BCAD would continue to charge the existing concession fee. We understand that for these operators, BCAD management may choose to charge the concession fee as well as a per-trip fee. Alternatively, BCAD could elect to charge the higher of an operator's per-trip fees or concession fees. In either case, BCAD would also charge a trip limit fee (discussed later in this section) to operators exceeding a prescribed monthly trip limit.

Cost recovery fees were calculated for taxicabs, pre-arranged limousines, shared-ride vans, courtesy vehicles (operated by hotels, motels, off-Airport rental car companies, and off-Airport parking companies), and charter buses (including those carrying passengers to Port Everglades). As described above, it is recommended that BCAD discontinue the private car service and therefore, this service is not included in the calculation of fees. The steps used to calculate the fees included:

- Identify the annual depreciation of facilities used by the commercial vehicle operators. In FY 2009, the share of these depreciation costs allocated to commercial vehicles that would pay fees was approximately \$600,000 (approximately 1.8% of the total annual depreciation of all Airport facilities: \$32.5 million).

- Identify the annual operating, overhead, and administration expenses for facilities used by the commercial vehicle operators. In FY 2009, the share of these expenses allocated to commercial vehicles that would pay fees was approximately \$2.0 million (approximately 1.7% of the total annual operating, overhead, and administration expenses for all Airport facilities: \$118.8 million).
- Identify total annual trips by type of service picking up passengers. Due to the recommendation that BCAD discontinue the private car service, the trips made by the private car service in FY 2009 were distributed among taxicabs, pre-arranged limousines, and shared-ride vans. In FY 2009, it is estimated that the commercial vehicle services that would pay fees conducted approximately 1,260,000 trips on the Lower Drive picking up Airport passengers. Because they only serve the Consolidated Rental Car Facility and do not use the terminal roadways, trips made by off-Airport rental car operators are not included in these calculations.
- Recognizing that larger vehicles, such as large vans and full-size buses, create more wear on roadway pavements and have a larger affect on roadway operations than do smaller vehicles (such as taxicabs), define four “classes” of vehicles, based on passenger capacity, and estimate the share of trips comprised of each “class” for each type of service. When allocating costs, the number vehicle trips were adjusted to account for vehicle sizes. The definitions of vehicle classes and weighting factors are as follows:

Class	Passenger capacity	Weighting factor (a)
1	Up to 5	1.0
2	6 to 14	1.6
3	15 to 30	4.0
4	Over 30	8.0

(a) Used in the allocation of costs among services.

- Allocate proportional share of cost to each type of service.
- Allocate costs of facilities used exclusively by selected operators (i.e., GTAs) to just those operators.
- Allocate the estimated annual costs of the ground transportation management contractor to those commercial vehicle services managed and controlled by the contractor (taxicabs, pre-arranged limousines, and charter buses), as well as those expected to experience a benefit due to the presence of the contractor. Based on information provided in prior reports prepared for BCAD staff, it is estimated that that annual cost of the contractor’s taxicab dispatch responsibilities, including salaries, operating expenses, and management fee, would be \$1.0 million to \$1.5 million. Annual costs of the contractor’s responsibilities for the information booths and cruise bus command post would be approximately \$525,000 and \$25,000, respectively, based on Jacobs Consultancy estimates of staff time and expenses associated with each function.

- Allocate the estimated annual costs of the AVI system. Based on information provided by BCAD’s AVI system consultant, installation of the AVI system is expected to be approximately \$1.4 million and should be depreciated over 5 years. Annual operating expenses of the system are expected to be approximately \$100,000.
- Divide annual costs by annual trips to calculate the per-trip fee.

Further description of the methodology used to calculate the cost-recovery fees is provided in Appendix B.

Table 5 summarizes the estimated per-trip fees for the commercial vehicle services, as calculated by the above methodology, that would have recovered the costs BCAD incurred in FY 2009.

Table 5
CALCULATED PER-TRIP FEES, FY 2009
Fort Lauderdale-Hollywood International Airport

Commercial vehicle service	Estimated annual trips	Per-trip fee <i>(a)</i>			
		Class 1	Class 2	Class 3	Class 4
Taxicabs	540,000	\$3.71 - \$4.55	n/a	n/a	n/a
Shared-ride vans <i>(b)</i>	140,000	n/a	\$3.43 - \$3.51	n/a	n/a
Pre-arranged limousines	350,000	\$2.61 - \$2.66	\$4.18 - \$4.26	n/a	n/a
Courtesy vehicles <i>(b)</i>	220,000	n/a	\$3.43 - \$3.51	n/a	n/a
Charter buses	10,000	n/a	n/a	\$9.76 - \$9.95	\$19.52 - \$19.91
Total	1,260,000				

(a) The range of the calculated per-trip fee reflects the potential range in the annual cost of the ground transportation management contractor.

(b) Commercial vehicle services with concession arrangements (shared-ride vans, private cars, and off-Airport parking operators) would pay the higher of their per-trip fees or concession fees.

It is expected that these per-trip fees would result in annual revenue of at least \$4.4 to \$4.9 million. After deducting costs related to the Ground Transportation Management Contract and the AVI system, annual revenues would be approximately \$2.5 million plus privilege fee amounts exceeding an operator’s per trip fees (compared with \$1.7 million currently being paid to BCAD by the commercial vehicle operators, which includes privilege fees).

In the event the BCAD wishes to implement per-trip fees based on “market rate” (i.e., the range of fees charged commercial vehicle operators at other airports), Table 6 presents the market rate for fees charged to the services presented in Table 1. As shown, the cost recovery fees shown in Table 1 generally fall within, or near, the range of the market rate.

Table 6
MARKET RATE PER-TRIP FEES
Fort Lauderdale-Hollywood International Airport

Commercial vehicle service	Cost-recovery per-trip fee ^(a)	Market rate fee ^(b)
Taxicabs	\$3.71 - \$4.55	\$2.00 - \$4.00
Shared-ride vans ^(b)	\$3.43 - \$3.51	\$2.00 - \$3.00
Pre-arranged limousines	\$2.61 - \$4.26	\$2.40 - \$4.80
Courtesy vehicles ^(b)	\$3.43 - \$3.51	\$1.00 - \$3.00
Charter buses	\$9.76 - \$19.95	\$5.00 - \$20.00
Total		

(a) See Table 5, range reflects all Classes and range of annual cost for ground transportation management contractor.

(b) See Appendix C, “Benchmarking Analysis”.

Trip Limit Fees

In addition to the per-trip fees described above, it is recommended that BCAD implement trip limit fees (a demand management fee) for courtesy vehicle operators. Trip limits, which are intended to promote efficient use of airport roadways, minimize vehicle miles traveled reduce air quality emissions, and support regional environmental goals, are fines assessed to discourage courtesy vehicle operators from operating vehicles at frequent headways or having multiple vehicles at one stop to advertise their services rather than accommodate customer demands (e.g., creating a “moving billboard”). This fee would be assessed if an operator conducts more than a prescribed number of trips within a given period (e.g., 2,000 per month). As part of implementing the trip limit fees, BCAD will need to determine the amount of fine or penalty. It is possible that the fee would have to be significant in order to achieve the desired change in behavior.

8. Summary of Revenues and Costs

Table 7 compares actual FY 2009 commercial ground transportation revenues and costs with estimated revenues and costs related to the recommendations described above.

Table 7
SUMMARY OF REVENUES AND COSTS (a)
Fort Lauderdale-Hollywood International Airport

	FY 2009 actual revenues and costs	Estimated revenues based on recommended business arrangements
Annual revenue	\$1,331,327	\$4,395,000 - 4,895,000 (b)
Annual costs		
Capital	\$581,000	\$581,000
Operating, overhead, administration	1,970,000	1,970,000
Ground transportation management contractor	n.a.	\$1,550,000 - 2,050,000
AVI depreciation	n.a.	218,000
AVI operation	<u>n.a.</u>	<u>76,000</u>
Total costs	\$2,551,000	\$4,395,000 - 4,895,000
Revenues less expenses	(\$1,219,673)	\$0 (b)

(a) Includes revenues and costs for taxicabs, shared-ride vans, on-demand private cars, pre-arranged limousines and vans, courtesy vehicles, and charter and cruise ship buses.

(b) Commercial vehicle services with concession arrangements (shared-ride vans) or privilege fees (off-Airport parking operators) would pay the higher of their per-trip fees or concession/privilege fees, which could result in higher revenues than shown in this table.

Source: Jacobs Consultancy, April 2010, from information provided by BCAD staff.

As shown, the recommended business arrangements, in conjunction with implementation of the AVI and per-trip fees, are expected to allow BCAD to cover its existing costs for accommodating commercial ground transportation as well as the additional cost for the ground transportation management contractor. By comparison, it is estimated that existing commercial ground transportation revenues cover approximately 50% of BCAD's costs for accommodating those services.

9. Sequence of Implementation Actions

This section presents the suggested sequence for implementing the individual components of the commercial vehicle arrangements. The major steps are listed below and are presented in the suggested sequence.

1. Continuing the on-going design, procurement, installation and testing of the new AVI system. Continued coordination with the AVI system design and implementation to assure that the planned system contains the features described above (e.g., able to support the preparation of monthly bills for each company).
2. Approval of the recommended business arrangements by BCAD management.
3. Preparing taxicab standards in conjunction with Port Everglades staff to augment the County's existing standards. If desired, any potential revision of current standards for shared-ride van service could happen concurrent with this task.

4. Obtaining the County Board of Commissioner's approval of the recommended business arrangements and proposed taxicab and shared-ride van services.
5. Preparing RLI for a ground transportation management contractor. This task is assumed to require two to four months and includes the following actions:
 - a. Preparation of the draft RLI by BCAD staff
 - b. Internal reviews of the draft RLI by BCAD staff
 - c. Review of the draft RLI by Port and County staff
 - d. Preparation of the final draft RLI by BCAD staff
 - e. Review of the final draft RLI by County legal staff
 - f. Obtain approval to release the final RLI
6. Advertising and awarding the ground transportation management contract. This task is assumed to require six to seven months and includes the following actions:
 - a. Advertisement for and issuance of the RLI
 - b. Bidder response period
 - c. Review and evaluation of the letters of interest by BCAD staff, and interviews (if desired) of contractors (or prospective concessionaires)
 - d. Selection of preferred contractor (or concessionaire)
 - e. Negotiations with preferred contractor (or concessionaire)
 - f. Award of contract
7. A mobilization period to allow the selected contractor to hire and train staff, and purchase/lease needed equipment, tools, and facilities.

When the ground transportation management contractor is in place it will be possible to initiate the new taxicab service and issue decals to taxicab operators who meet BCAD's new standards. Award of the new shared-ride van concession contract could occur independently from award of the ground transportation management contract. The services now provided by Yellow Limousine of Florida would end upon the initiation of service by the selected share-ride van concessionaire.

The following steps are not part of the critical sequence and may occur throughout the process (though some steps may be linked to one of the 7 sequential steps listed above).

8. Upon completion of the AVI system and BCAD's acceptance of this system, it is expected that BCAD will issue AVI tags to all authorized commercial vehicle operators. It is

suggested that for a two to three month period BCAD monitor the number of commercial vehicle trips made by each operator and issue sample invoices indicating the fees due if this were an actual invoice. After this “trial” period, it is suggested that BCAD begin to issue real invoices.

9. Reviewing and approving the proposed commercial vehicle fees, and determining the schedule for establishing these fees. Steps 9, 10, and 11 should be completed in sequence and Step 11 may be completed following Step 8, but must be completed to allow the collection of fees. Step 11 should also be completed prior to Step 12.
10. Reviewing the draft business arrangements (as appropriate), fees, and standards with representatives from the commercial vehicle operators. As appropriate, modifying the business arrangements, fees, and standards to reflect the comments and suggestions offered by the commercial vehicle operators.
11. Presenting the recommended draft business arrangements, commercial vehicle fees, and standards for taxicab vehicles and drivers to the County Commissioners.
12. Preparing RLI for a share-ride van contractor. This task is assumed to require two to four months and includes the same actions as listed in Step 5, above. This step must precede Step 13, but may happen any time following Step 11.
13. Advertising and awarding the shared-ride van contract. This task is assumed to require six to seven months and includes the same actions as listed in Step 6, above. This step must follow Step 12.

APPENDIX A

TAXICAB STANDARDS

Table A-1 presents potential taxicab service standards. The table summarizes key elements of existing Broward County standards, potential ‘minimum’ taxicab standards, and suggested ‘superior’ standards. The potential minimum and superior standards are based on taxicab standards employed at airports across the United States.

Table A-1
POTENTIAL TAXICAB SERVICE STANDARDS

Commercial Vehicle Business Arrangements
Fort Lauderdale-Hollywood International Airport

	Current Broward County Standards	Potential Minimum Standards	Suggested Superior Standards
Standards for Taxicab Vehicles			
Maximum Vehicle Age/Mileage	No limit	5 yrs/400,000 mi	5 yrs/400,000 mi
Secure Credit Card Acceptance	Not required	Required	Required
Required liability insurance coverage	\$500,000	\$500,000	\$1,000,000
Computer dispatching/GPS	Not required	Not required	Required
Requirements for alternative fuel vehicles	None	None, offered head of line	Percent of total fleet
Vehicle appearance	No dents/rust	No dents/rust	Common appearance/colors
Passenger/luggage capacity	<8 passengers	5 passengers	5 passengers
Vans (for larger parties, greater baggage)	None	Available	Available
ADA accessible vehicle	All vehicles acquired after July 2001 must be ADA accessible	Within 10 minutes	Accommodated by X% of fleet
Vehicle inspection-major	Every 6 months	Every 6 months	Every 6 months
Vehicle inspection-minor	By B&L	Prior to dispatch	Prior to dispatch
Standards for Taxicab Drivers			
Customer service training	None	Prior to initial permit	Annual training
Driver personal appearance/hygiene	Standard	Standard	Standard
Driver uniforms	Not required	Not required	Collared shirt with logo
Driver communication skills	Speak, read, and write in English	Ability to clearly communicate in English	Ability to clearly communicate in English

APPENDIX B

CALCULATION OF FULL-COST RECOVERY FEES

This appendix describes the methodology and calculations for the cost-recovery per-trip fees presented in Section 7.

Estimated Annual Vehicle Trips

To estimate annual vehicle trips, Jacobs Consultancy conducted (1) a vehicle classification survey during 16 hours over November 19 and 20, 2009, and (2) a 7-day, 24-hour automatic vehicle counts for November 17 through 23, 2009. The surveys and counts were conducted on the terminal loop roadway east of the merge point of the Upper and Lower drives and included vehicles exiting the parking garages. The classification results were combined with the automatic vehicle counts to estimate the weekly number of trips, by vehicle type (e.g., private vehicle, taxicab, charter bus) using the terminal-area roadway system. These weekly volumes were then escalated to annual estimated volumes based on the ratio of parking transactions for November 17 through 23, 2009, to annual parking transactions for 2009. Given that cost-recovery per-trip fees would only be assessed to vehicles using the Lower Drive, the annual estimated volumes were halved and services not operating on the Lower Drive (e.g. pre-arranged shuttles dropping passengers off at the Airport) were removed from the calculation.

Annual trips were then adjusted to account for known annual volumes for taxicabs and charter buses (as provided by BCAD staff). Table B-1 presents the results of the vehicle classification survey and the corresponding estimated annual trips for 2009. As shown, commercial vehicles comprised approximately 14.8% of all annual trips.

As described in Section 6 of the report, it is recommended that on-demand private car service be discontinued at the Airport in conjunction with the implementation of higher standards for taxicab vehicles and drivers. Therefore, for purposes of estimating the cost-recovery per-trip fees, the approximately 190,000 annual trips made by on-demand private cars were redistributed among taxicabs, pre-arranged limousines, and on-demand shuttles. Table B-2 presents the adjusted annual trips following this redistribution.

Larger vehicles typically have a greater impact on roadways, curbside areas, and traffic conditions. Therefore, it was determined that the allocation of costs to commercial vehicles expected to pay fees should be based on 'equivalent trips' that reflected the relative size of vehicles using the Airport terminal area roadway system. Equivalent trips for each type of service were calculated by combining (a) a weighting factor based on vehicle passenger capacity and (b) an estimate of the distribution of trips, by vehicle size, for each service. Table B-3 presents the calculation of equivalent trips for commercial vehicles.

FY2009 Capital Expenses

Table B-4 summarizes the construction costs and corresponding depreciation for FY 2009, as provided by BCAD, for Airport facilities. As shown, approximately \$580,000 in depreciation was allocated to commercial ground transportation services expected to pay fees, based on the

share of total trips made by these services (approximately 14.8%). The remaining depreciation amount was allocated to non-ground transportation functions or to vehicles not expected to pay fees. The cost of acquiring and installing the AVI system is also shown. Based on information provided by BCAD's AVI system consultant, this cost was assumed to depreciate over 5 years, for an annual depreciation of approximately \$285,000. 76.5% of this cost (approximately \$218,000) was allocated to commercial vehicles with the rest being allocated to shuttle buses serving the Airport's public parking facilities and Consolidated Rental Car Facility.

FY2009 Operating and Maintenance Expenses

Table B-5 summarizes the FY 2009 operating and maintenance expenses for the Landside Operations department, which deals exclusively with ground transportation services. As shown, of the approximately \$13 million of annual expenses, approximately \$420,000 was allocated to commercial vehicles expected to pay fees, based on the share of total trips made by these services (approximately 14.8%). A large share of the expenses is related to the parking and rental car operations and therefore was not allocated to commercial vehicles.

Table B-5 also shows the amount of FY 2009 annual expenses for services provided by the Broward County Sheriff's Office (BSO) and County Fire and Rescue (CFR). Of the total costs for these services to the Airport, Landside Operations was allocated 42% of total BSO expenses (approximately \$7.2 million) and 10% of CFR expenses (approximately \$0.9 million). Of these allocated expenses, approximately \$1.2 million was allocated to commercial vehicles expected to pay fees based on the share of total trips made by these services (approximately 14.8%).

Table B-5 also presents the estimated annual costs for the Ground Transportation Management Contractor. For each of the three key duties of the contractor (taxicab dispatch, cruise bus command post, and information booth), the annual cost is allocated primarily to the service expected to directly benefit from the responsibility but a share is allocated to the other commercial vehicle services because it expected that they or their customers will benefit, in part, from the overall improvement in operations resulting from the contractor's duties. As shown, the contractor's taxicab dispatch duties are expected to cost \$1.0 to \$1.5 million, based on documentation provided by BCAD staff. 90% of this cost was allocated to taxicabs and the remaining 10% was allocated to other services expected to pay fees, based on each service's relative share of equivalent trips (as described above and presented on Table B-3). The contractor's cruise bus command post duties are expected to cost approximately \$25,000, based on Jacobs Consultancy estimates of the annual number of staff hours required for the service. 90% of this cost was allocated to charter buses and the remaining 10% was allocated to other services expected to pay fees, based on each service's relative share of equivalent trips (as described above and presented on Table B-3). The contractor's cruise information booth duties are expected to cost approximately \$525,000, based on Jacobs Consultancy estimates of the annual number of staff hours required for the service. 50% of this cost was allocated to pre-arranged limousines and the remaining 50% was allocated to other services expected to pay fees, based on each service's relative share of equivalent trips (as described above and presented on Table B-3).

Table B-5 also presents the estimated annual operating expenses anticipated for the AVI system, as estimated by Jacobs Consultancy: \$100,000. As shown, 76.5% of this cost (approximately \$76,000) was allocated to commercial vehicles with the rest being allocated to shuttle buses serving the Airport's public parking facilities and Consolidated Rental Car Facility.

FY2009 Overhead and Administration Costs

Table B-6 presents the estimated annual overhead and administration expenses allocated to Landside Operations and commercial vehicles expected to pay fees. As shown, of the approximately \$18 million in annual overhead and administration expenses, 13.0% was allocated to Landside Operations, based on Landside Operations' share of the expenses of all operational departments (which do not include departments identified as overhead and administration). Of the \$2.4 million allocated to Landside Operations, approximately \$350,000 was allocated to commercial vehicles expected to pay fees based on the share of total trips made by these services (approximately 14.8%).

Fee Calculation

Table B-7 combines the results of Tables B-1 through B-6 to identify the annual expenses allocated to taxicabs, courtesy shuttles (operated by hotel / motel and off-Airport parking operators), on-demand shuttles, pre-arranged limousines, and charter / tour buses. The total expenses are presented as a range reflected the range of estimated costs for the taxicab dispatch duties of the Ground Transportation Management Contractor.

Table B-8 presents the cost-recovery per-trip fee calculations for the high and low estimate of allocated fees. For each commercial vehicle service, the average per-trip was calculated by dividing the allocated annual cost by the total number of trips (for all vehicle classes). Then, for each commercial vehicle service, the per-trip for each class was calculated based on (a) the estimated share of trips conducted by each class and (b) the relative trip weighting factor for each class. For example, for a given commercial vehicle service, such as pre-arranged limousines, the fee for Class 2 vehicles (those designed to carry 6 to 14 passengers) is defined as 1.6 times the fee for Class 1 vehicles (those designed to carry up to 5 passengers).

Table B-1
VEHICLE SURVEY AND ESTIMATED ANNUAL TRAFFIC VOLUMES BY VEHICLE TYPE, FY 2009
Fort Lauderdale/Hollywood International Airport

Vehicle type	Curbside vehicle classification survey (a)	Annual traffic volumes on lower level (b)
<i>Vehicles not expected to pay fees</i>		
Private Vehicles	78.4%	6,710,000
Airport Operated Shuttles	1.0%	90,000
Rental Car Shuttles	3.5%	300,000
BCT/Tri-rail bus	1.1%	90,000
Other/Service Vehicle	<u>1.2%</u>	<u>100,000</u>
<i>Subtotal: Non-Commercial Vehicles</i>	85.2%	7,290,000
<i>Commercial vehicles expected to pay fees</i>		
Taxicabs	5.3%	450,000
Courtesy shuttles (c)	2.6%	220,000
Shared-ride services	1.1%	90,000
Pre-arranged shuttles (d)	0.0%	-
On-demand limousines	2.2%	190,000
Pre-arranged limousines	3.5%	300,000
Charter/tour bus	<u>0.1%</u>	<u>10,000</u>
<i>Subtotal: Commercial Vehicles</i>	<u>14.8%</u>	<u>1,260,000</u>
All Vehicle Types	100.0%	8,560,000

(a) Vehicle classification based on sixteen-hour surveys conducted at each terminal curbside on November 19 and 20, 2009.

(b) Annual traffic volumes estimated based on traffic volume survey conducted November 17 through November 23, 2009, and annualized based on public parking transactions during the survey period and 2009 annual parking transactions.

(c) Includes courtesy shuttles by off-Airport parking and hotel/motel operators.

(d) Do not typically operate on the lower level.

Source: Jacobs Consultancy based on Nov 19 and 20, 2009, vehicle classification surveys and automatic traffic recorder counts provided by PMG Associates.

Table B-2
ADJUSTED ANNUAL TRAFFIC VOLUMES BY VEHICLE TYPE, FY 2009
Fort Lauderdale/Hollywood International Airport

Vehicle type	Estimated traffic volumes on lower level (a)	Adjusted traffic volumes on lower level (b)
<i>Vehicles not expected to pay fees</i>		
Private Vehicles	6,710,000	6,710,000
Airport Operated Shuttles	90,000	90,000
Rental Car Shuttles	300,000	300,000
BCT/Tri-rail bus	90,000	90,000
Other/Service Vehicle	100,000	100,000
<i>Subtotal: Non-Commercial Vehicles</i>	<u>7,290,000</u>	<u>7,290,000</u>
<i>Commercial vehicles expected to pay fees</i>		
Taxicabs	450,000	540,000 (c)
Courtesy shuttles	220,000	220,000
Shared-ride services	90,000	140,000 (c)
Pre-arranged shuttles (d)	-	-
On-demand limousines	190,000	-
Pre-arranged limousines	300,000	350,000 (c)
Charter/tour bus	10,000	10,000
<i>Subtotal: Commercial Vehicles</i>	<u>1,260,000</u>	<u>1,260,000</u>
All Vehicle Types	8,550,000	8,550,000

(a) See Table B-1.

(b) Assumes on-demand limousine service is discontinued and trips become taxicab, pre-arranged limousine, and on-demand shuttle trips.

(c) Include trips originally made by on-demand limousine service.

(d) Do not typically operate on the lower level

Source: Jacobs Consultancy.

Table B-3
EQUIVALENT ANNUAL TRAFFIC VOLUMES, BY VEHICLE CLASS (SIZE), FY 2009
Fort Lauderdale/Hollywood International Airport

Vehicle type	Estimated share of trips made by vehicles in each passenger capacity range				Estimated annual trips made by vehicles in each passenger capacity range				Adjusted traffic volumes on lower level (a)	Equivalent trips		
	Class 1	Class 2	Class 3	Class 4	Class 1	Class 2	Class 3	Class 4		Volume	Share	
	Passenger capacity 1 to 5	6 to 14	15 to 30	31 and up	1 to 5	6 to 14	15 to 30	31 and up				
	<u>Trip weighting factor</u>	1	1.6	4	8	1	1.6	4	8			
<i>Commercial vehicles expected to pay fees</i>												
Taxicabs	100%				540,000					540,000	540,000	34.5%
Courtesy shuttles		100%				220,000				220,000	352,000	22.5%
Shared-ride services		100%				140,000				140,000	224,000	14.3%
Pre-arranged limousines	90%	10%			315,000	35,000				350,000	371,000	23.7%
Charter/tour bus			10%	90%			1,000	9,000		10,000	76,000	4.9%
Total										1,260,000	1,563,000	100.0%

(a) See Table B-2.

Source: Jacobs Consultancy.

Table B-4
CAPITAL EXPENSES ALLOCATION
Fort Lauderdale/Hollywood International Airport

Capital Expenses	Construction cost	Annual depreciation (FY 2009)	Percent allocated to commercial vehicles (a)	Annual cost allocated to commercial vehicles (FY 2009)
Terminal Roadway Task 1 & 2	\$ 133,051,825	\$ 3,326,296	14.8%	\$ 491,834
Terminal Roadway Task 1 & 2	3,500,217	87,505	14.8%	12,939
Terminal Roadway Addl Costs	2,716,427	67,911	14.8%	10,041
Terminal Roadway Addl Costs	498,582	12,465	14.8%	1,843
Art,Landscape/Mgmt costs	350,000	8,750	14.8%	1,294
Ground Transport Areas 2 & 3	165,989	-	100.0%	-
GT Area Road Imp	256,806	25,681	100.0%	25,681
Imp Interior Roadway	243,398	24,340	14.8%	3,599
Airport Entrance	5,522	138	14.8%	20
Road/Site Improvement	9,136,625	228,416	14.8%	33,774
Other projects (b)	953,540,869	28,672,602	0.0%	-
Total	\$ 1,103,466,261	\$ 32,454,102		\$ 581,025
 Automatic Vehicle Identification System (c, d)	 \$ 1,424,500	 \$ 284,900	 76.5% (d)	 \$ 217,821

(a) Based on share of trips comprised of commercial vehicles expected to pay fees, as shown on Table B-1.

(b) Facilities not used by commercial ground transportation services.

(c) As per *Conceptual Design Report, Ground Transportation Management System at Fort Lauderdale-Hollywood international Airport and Port Everglades* . Assumes a 5-year depreciation period for the equipment.

(d) Assumes that 23.5% of the cost is allocated to BCAD shuttle buses serving the parking facilities and Consolidated Rental Car Facility.

Source: Jacobs Consultancy based cost and depreciation data provided by Broward County Aviation Department, January 2010.

Table B-5
OPERATING EXPENSES ALLOCATION, FY 2009
Fort Lauderdale/Hollywood International Airport

	Actual expenses (a)	Percent allocated to commercial vehicles expected to pay fees (b)	Annual cost allocated to commercial vehicles expected to pay fees
Estimated Expenses, Operations - Landside			
Department administration cost			
Regular Salaries And Wages	\$ 982,085	14.8%	\$ 145,213
Other Salaries And Wages	-	14.8%	-
Salaries-Without Hlth Benefits	73,454	14.8%	10,861
Salary Adjustment	-	14.8%	-
Accrued Sick & Vacation	9,949	14.8%	1,471
Overtime-Straight Time	7,201	14.8%	1,065
Overtime-Premium Dist	10,782	14.8%	1,594
Fica Taxes	80,290	14.8%	11,872
Retirement Contributions	102,939	14.8%	15,221
OPEB Expense	8,155	14.8%	1,206
Group Insurance	145,476	14.8%	21,510
Basic Life Insurance	1,340	14.8%	198
Workers' Compensation	70,730	14.8%	10,458
Unemployment Compensation	-	14.8%	-
Subtotal	\$ 1,492,401		\$ 220,670
Contractual Services			
Laundry & Dry Cleaning	\$ 4,200	14.8%	\$ 621
Contractual Services (Recur)	-	14.8%	-
Security Services	126,182	14.8%	18,658
Cont Svc-Planning	-	14.8%	-
Cont Svc - Parking Mgmt	6,478,218	0.0%	-
Cont Svc - Shuttle Service	2,942,033	0.0%	-
Cont Svc-Prkg Rev Control Sys	777,432	0.0%	-
Subtotal	\$ 10,328,064		\$ 19,279
Other expenses			
Travel And Per Diem	\$ 1,232	14.8%	\$ 182
Educational Course	-	14.8%	-
Tuition Reimbursement	465	14.8%	69
Purchased Insurance	1,194,571	14.8%	176,632
Equipment Maintenance	1,421	14.8%	210
External Printing	4,720	14.8%	698
Internal Printing	3,823	14.8%	565
Office Supplies	-	14.8%	-
Office Equip < \$1000	1,912	14.8%	283
Tools & Small Implements	5,610	14.8%	830
Wearing Apparel	2,772	14.8%	410
Dues & Memberships	980	14.8%	145
Miscellaneous Expense	1,934	14.8%	286
Subtotal	\$ 1,219,440		\$ 180,309
Total	\$ 13,039,905		\$ 420,258
Estimated Expenses - Other Departments			
Broward County Sheriff (BSO) (c)	\$ 7,225,398	14.8%	1,068,365
County Fire (CFR) (d)	891,465	14.8%	131,814
Total	\$ 8,116,863		\$ 1,200,179
Ground Transportation Management Contractor Estimated Costs (e, f)			
Taxicab dispatch - high	\$ 1,500,000	100.0%	\$ 1,500,000
Taxicab dispatch - low	1,000,000	100.0%	1,000,000
Cruise bus command post	25,000	100.0%	25,000
Information booth	525,000	100.0%	525,000
	\$1,550,000 -		
Total	\$2,050,000		\$1,550,000 - \$2,050,000
Automatic Vehicle Identification System Estimated Operating Expenses (g)			
Total	\$ 100,000	76.5% (h)	\$ 76,455

(a) Costs allocated to all vehicles using terminal-area roadway facilities, including vehicles not expected to pay fees.

(b) See Table B-1.

(c) Assumes 42% of BSO costs are allocated to landside operations, as per BCAD staff.

(d) Assumes 10% of C.F.R. costs are allocated to landside operations, as per BCAD staff.

(e) These costs would be allocated to commercial vehicles benefitting from the service.

(f) Taxicab dispatch cost estimates are based on information provided by BCAD staff, other costs based on Jacobs Consultancy estimates of staff hours associated with each service.

(g) Based on estimate provided by vendor of automatic vehicle identification equipment.

(h) Assumes that 23.5% of the cost is allocated to BCAD shuttle buses serving the parking facilities and Consolidated Rental Car Facility.

Source: Jacobs Consultancy based data provided by Broward County Aviation Department, January 2010.

Table B-6
ALLOCATION OF OVERHEAD AND ADMINISTRATION EXPENSES, FY 2009
Fort Lauderdale/Hollywood International Airport

Departments identified as overhead' and / or 'administration'	Annual cost	Share of total
AV- Administration	\$ 3,738,661	20.5%
AV- Business	1,322,079	7.2%
AV- Planning & Development	4,495,100	24.6%
AV- Finance	2,478,746	13.6%
AV- Information Systems	2,112,953	11.6%
AV- OGA & Shared Services	4,098,236	22.5%
Total	\$ 18,245,775	100.0%

Operational department costs	Annual cost	Share of total	Allocated overhead and administration cost	Allocation to commercial vehicles expected to pay fees (a)	
				Share	Cost
AV- Operation-Terminal	\$ 6,118,998	6.1%	\$ 1,110,123	0.0%	\$ -
AV- Operation-Security	19,779,288	19.7%	3,588,406	0.0%	-
AV- Operations-Airside	3,235,706	3.2%	587,030	0.0%	-
AV- Operations-Comm Center	1,120,533	1.1%	203,290	0.0%	-
AV- Operations- Administration	584,937	0.6%	106,121	0.0%	-
AV- Operations-Landside	13,039,905	13.0%	2,365,731	14.8%	349,803
AV- Operations- North Perry	580,684	0.6%	105,349	0.0%	-
AV- Operations-ARFF	8,914,654	8.9%	1,617,318	0.0%	-
AV- Operations- CRCF	10,556,658	10.5%	1,915,214	0.0%	-
AV- Airport Maintenance	15,492,846	15.4%	2,810,749	0.0%	-
AV- Maintenance Facilities	21,146,476	21.0%	3,836,445	0.0%	-
Total	\$ 100,570,685	100.0%	\$ 18,245,775		\$ 349,803

(a) See Table B-1.

Source: Jacobs Consultancy based data provided by Broward County Aviation Department,
January 2010.

Table B-7
ALLOCATION OF EXPENSES TO COMMERCIAL VEHICLE SERVICES
Fort Lauderdale/Hollywood International Airport

	Annual cost allocated commercial vehicles	Allocation to specific commercial vehicle services expected to pay fees (a)										
		Taxicabs		Courtesy shuttles		Shared-ride services		Pre-arranged limousines		Charter /tour buses		
		Share	Cost	Share	Cost	Share	Cost	Share	Cost	Share	Cost	
Capital Expenses (b)												
Terminal Roadway Task 1 & 2	\$ 491,834	34.5%	\$ 169,923	22.5%	\$ 110,765	14.3%	\$ 70,487	23.7%	\$ 116,744	4.9%	\$ 23,915	
Terminal Roadway Task 1 & 2	12,939	34.5%	4,470	22.5%	2,914	14.3%	1,854	23.7%	3,071	4.9%	629	
Terminal Roadway Addl Costs	10,041	34.5%	3,469	22.5%	2,261	14.3%	1,439	23.7%	2,383	4.9%	488	
Terminal Roadway Addl Costs	1,843	34.5%	637	22.5%	415	14.3%	264	23.7%	437	4.9%	90	
Art,Landscape /Mgmt costs	1,294	34.5%	447	22.5%	291	14.3%	185	23.7%	307	4.9%	63	
Ground Transport Areas 2 & 3 (c)	-	45.3%	-	29.5%	-	18.8%	-	0.0%	-	6.4%	-	
GT Area Road Imp (c)	25,681	45.3%	11,634	29.5%	7,584	18.8%	4,826	0.0%	-	6.4%	1,637	
Imp Interior Roadway	3,599	34.5%	1,243	22.5%	811	14.3%	516	23.7%	854	4.9%	175	
Airport Entrance	20	34.5%	7	22.5%	5	14.3%	3	23.7%	5	4.9%	1	
Road/Site Improvement	33,774	34.5%	11,669	22.5%	7,606	14.3%	4,840	23.7%	8,017	4.9%	1,642	
Total	\$ 581,025		\$ 203,500		\$ 132,652		\$ 84,415		\$ 131,819		\$ 28,641	
Automatic Vehicle Identification System Installation (b)	\$ 217,821	34.5%	\$ 75,255	22.5%	\$ 49,055	14.3%	\$ 31,217	23.7%	\$ 51,703	4.9%	\$ 10,591	
Operating and Maintenance expenses (d)												
Operations - Landside	\$ 420,258	34.5%	\$ 145,195	22.5%	\$ 94,645	14.3%	\$ 60,229	23.7%	\$ 99,754	4.9%	\$ 20,435	
Other departments	1,200,179	34.5%	414,649	22.5%	270,290	14.3%	172,003	23.7%	284,879	4.9%	58,358	
Total	\$ 1,620,437		\$ 559,844		\$ 364,935		\$ 232,232		\$ 384,633		\$ 78,793	
Ground Transportation Management Contractor (d)												
Taxicab dispatch - high (e)	\$ 1,500,000	90.0%	\$ 1,350,000	3.4%	\$ 51,613	2.2%	\$ 32,845	3.6%	\$ 54,399	0.7%	\$ 11,144	
Taxicab dispatch - low (e)	1,000,000	90.0%	900,000	3.4%	34,409	2.2%	21,896	3.6%	36,266	0.7%	7,429	
Cruise bus command post (f)	25,000	3.6%	908	2.4%	592	1.5%	377	2.5%	624	90.0%	22,500	
Information booth (g)	525,000	22.7%	118,918	14.8%	77,517	9.4%	49,329	50%	262,500	3.2%	16,737	
Total - high	\$ 2,050,000		\$ 1,469,826		\$ 129,721		\$ 82,550		\$ 317,523		\$ 50,380	
Total - low	\$ 1,550,000		\$ 1,019,826		\$ 112,517		\$ 71,602		\$ 299,390		\$ 46,666	
Automatic Vehicle Identification System Operation (d)	\$ 76,455	34.5%	\$ 26,414	22.5%	\$ 17,218	14.3%	\$ 10,957	23.7%	\$ 18,148	4.9%	\$ 3,718	
Overhead and administration (h)	\$ 349,803	34.5%	\$ 120,853	22.5%	\$ 78,778	14.3%	\$ 50,132	23.7%	\$ 83,031	4.9%	\$ 17,009	
Grand total - high	\$ 4,895,541		\$ 2,455,691		\$ 772,360		\$ 491,502		\$ 986,856		\$ 189,132	
Grand total - low	\$ 4,395,541		\$ 2,005,691		\$ 755,156		\$ 480,554		\$ 968,723		\$ 185,417	

(a) See Table B-3 for shares.

(b) See Table B-4.

(c) Not used by pre-arranged limousines.

(d) See Table B-5.

(e) 90% of cost is allocated to taxicabs, 10% is allocated across other services paying fees proportional to their annual trips.

(f) 90% of cost is allocated to charter buses, 10% is allocated across other services paying fees proportional to their annual trips.

(g) 50% of cost is allocated to pre-arranged limousines, 50% is allocated across other services paying fees proportional to their annual trips.

(h) See Table B-6.

Source: Jacobs Consultancy.

Table B-8
CALCULATION OF COST-RECOVERY PER-TRIP FEE, BY VEHICLE SERVICE AND CLASS
Fort Lauderdale/Hollywood International Airport

Vehicle type	Estimated trips made by vehicles in each passenger capacity range (a)				
	Class 1	Class 2	Class 3	Class 4	Total
	1 to 5	6 to 14	15 to 30	31 and up	
Passenger capacity					
Trip weighting factor	1	1.6	4	8	
Taxicabs	540,000				540,000
Courtesy shuttles		220,000			220,000
Shared-ride services		140,000			140,000
Pre-arranged limousines	315,000	35,000			350,000
Charter/tour bus			1,000	9,000	10,000
Total					1,260,000

HIGH END OF TAXICAB DISPATCH COST RANGE

Vehicle type	Allocated annual cost (b)	Per trip fee, by vehicle class				
		Class 1	Class 2	Class 3	Class 4	Average
Taxicabs	\$ 2,455,691	\$4.55	n/a	n/a	n/a	\$4.55
Courtesy shuttles	772,360	n/a	\$3.51	n/a	n/a	\$3.51
Shared-ride services (c)	491,502	n/a	\$3.51	n/a	n/a	\$3.51
Pre-arranged limousines	986,856	\$2.66	\$4.26	n/a	n/a	\$2.82
Charter/tour bus	189,132	n/a	n/a	\$9.95	\$19.91	\$18.91
Total	\$ 4,895,541					

LOW END OF TAXICAB DISPATCH COST RANGE

Vehicle type	Allocated annual cost (b)	Per trip fee, by vehicle class				
		Class 1	Class 2	Class 3	Class 4	Average
Taxicabs	\$ 2,005,691	\$3.71	n/a	n/a	n/a	\$3.71
Courtesy shuttles	755,156	n/a	\$3.43	n/a	n/a	\$3.43
Shared-ride services (c)	480,554	n/a	\$3.43	n/a	n/a	\$3.43
Pre-arranged limousines	968,723	\$2.61	\$4.18	n/a	n/a	\$2.77
Charter/tour bus	185,417	n/a	n/a	\$9.76	\$19.52	\$18.54
Total	\$ 4,395,541					

(a) See Table B-3.

(b) See Table B-7.

(c) Expected to pay a concession fee exceeding the value of annual cost-recovery fees.

Source: Jacobs Consultancy.

APPENDIX C

SUMMARY OF BENCHMARKING ANALYSIS

This appendix presents the results of the benchmarking analysis of commercial ground transportation services at selected airports. Data includes the type of business arrangement, type and level of fees, annual revenues (if available), and airport expenses related to each commercial ground transportation service (if available).

Table C-1
GROUND TRANSPORTATION AGREEMENTS—TAXICABS, SHARED-RIDE SERVICES, PRIVATE CARS

Airport	Taxicabs	Shared-ride services	Private cars (on-demand limousines)
Fort Lauderdale/Hollywood International	Exclusive (a) (Single concession)	Exclusive (Single concession)	Exclusive (Single concession)
Jacksonville International	Exclusive (Single concession)	Exclusive (Single concession)	not available
Miami International	Open (City/county permit)	Exclusive (Single concession)	not available
Orlando International	Open (City/county permit)	Exclusive (Single concession)	not available
Palm Beach International		Exclusive (Single concession for all 3 services)	
Tampa International	Exclusive (Multiple companies)	Exclusive (Multiple companies)	not available
Charleston International	Open (b) (Airport permit)	not available	not available
Chicago O'Hare International	Open (City/county permit)	Exclusive (Single concession)	not available
Denver International	Open (City/county permit)	Open (City/county permit)	not available
Detroit-Metropolitan Wayne County	Exclusive (Single concession)	not available	Exclusive (Single concession)
George Bush Intercontinental/Houston	Open (City/county permit)	Exclusive (Single concession)	not available
Philadelphia International	Open (City/county permit)	Open (City/county permit)	not available
Salt Lake City International	Open (City/county permit)	Open (City/county permit)	not available
San Diego International	Open (b) (Airport permit)	Open (City/county permit)	not available
San Francisco International	Open (City/county permit)	Open (City/county permit)	not available
Seattle-Tacoma International	Exclusive (Single concession)	Exclusive (Single concession)	Exclusive (Single concession)
Washington-Dulles International	Exclusive (Multiple companies)	Exclusive (Single concession)	not available

(a) Exclusive contract also allows access to a limited number of independent taxicabs.

(b) Airport operator restricts the number of available permits.

Source: Jacobs Consultancy, from information provided by airport operators.

Table C-2
GROUND TRANSPORTATION FEES—TAXICABS, SHARED-RIDE SERVICES, AND PRIVATE CARS

Airport	Taxicabs	Shared-ride services	Private cars (on-demand limousines)
Fort Lauderdale/Hollywood International	Concession fee: \$0.051 per deplaning passenger, with a MAG of \$448,272	Concession fee: \$0.0461 per deplaning passenger, with a MAG of \$390,840	
Jacksonville International	Concession fee	Concession fee	n.a.
Miami International	\$2.00 per trip	Concession fee: 6.4% of gross revenues, with a \$504,000 MAG	n.a.
Orlando International	\$4.00 per trip (includes \$1.00 per trip for dispatch service cost recovery)	Concession fee: 11.5% of gross revenues, with a \$3,050,000 MAG	n.a.
Palm Beach International	Concession fee of \$0.0885 per deplaning passenger with a MAG of \$266,559		
Tampa International	Concession fee: \$174,000 per company	Varies by company	n.a.
Charleston International	Permit fee: \$120 per year plus \$200 per month	n.a.	n.a.
Chicago O'Hare International	\$2.00 per trip (paid to City)	Concession fee: 10% of gross revenues (paid to Airport), \$1.00 per passenger (paid to City)	n.a.
Denver International	\$3.50 per trip	\$1.75 - \$5.30 per trip, based on vehicle size. Additional charges for excess dwell times	n.a.
Detroit-Metropolitan Wayne County	Concession fee: \$1,350,000 per year, which increases each year of contract	n.a.	Concession fee: \$1,000,000 per year, which increases each year of contract
George Bush Intercontinental/Houston	\$2.75 per trip	Concession fee: 10% of gross revenues, with a \$100,000 MAG	n.a.
Philadelphia International	\$1.50 per trip	\$1.50 - \$22.00 per trip, based on vehicle size	n.a.
Salt Lake City International	\$0.85 per trip	\$1.02 per trip	n.a.
San Diego International	Permit fee: \$200 - \$500 per vehicle per year	Permit fee: \$200 per vehicle per year	n.a.
San Francisco International	\$4.00 per trip (a)	\$2.75 per trip	n.a.
Seattle-Tacoma International	\$1.80 per trip plus \$0.18 per trip for having exclusive contract with one company	\$2.90 per trip	Concession fee: 10% of gross revenues
Washington-Dulles International	\$1,000 - \$1,500 annual fee per vehicle plus \$2.50 per trip	\$2.80 per trip, with a \$146,000 MAG	n.a.

(a) First trip costs \$4.00. If the first trip is a short trip (less than 30 minutes for a round trip), the second trip is free. If the second trip is also a short trip, the third trip costs \$2.00.

Source: Jacobs Consultancy, from information provided by airport operators.

**Table C-3
GROUND TRANSPORTATION FEES—PRE-ARRANGED LIMOUSINES, COURTESY VEHICLES, AND CHARTER BUSES**

Airport	Pre-arranged limousines	Courtesy vehicles (hotel/motel, off-airport parking)	Charter buses
Fort Lauderdale/Hollywood International	Permit fee: \$50 per vehicle per year	Concession fee: 4% - 8% of gross revenues (off-airport parking only)	\$6.00 - \$10.00 per trip
Jacksonville International	\$2.50 per trip	\$2.50 per trip	\$20.00 per trip
Miami International	\$2.50 per trip	\$1.00 - \$2.00 per trip, based on vehicle size	\$6.00 per trip
Orlando International	\$2.40 - \$4.80 per trip, based on vehicle size . Additional dwell time charges.	\$3.15 - \$6.95, based on vehicle size. Additional dwell time charges.	\$5.80 per trip. Additional dwell time charges
Palm Beach International	No fees	No fees	No fees
Tampa International	Permit fee: \$150 per year per vehicle	Permit fee: \$550 per year per vehicle	\$25.00 per trip (a)
Charleston International	\$1.00 per trip	Permit fee: \$120 per year plus \$200 per month	Permit fee: \$120 per vehicle per year
Chicago O'Hare International	\$2.00 per trip	No fees	\$9.00 - \$27.00, based on vehicle size
Denver International	\$1.75 - \$5.30 per trip, based on vehicle size. Additional dwell time charges.	\$1.75 - \$5.30 per trip, based on vehicle size. Additional dwell time charges.	\$5.30 per trip. Additional dwell time charges.
Detroit-Metropolitan Wayne County	\$10.00 per trip	Permit fee: \$780 per month per operator	\$30.00 per trip
George Bush Intercontinental/Houston	\$2.00 - \$7.50 per trip, based on vehicle size.	\$0.65 - \$1.50 per trip, based on vehicle size	\$2.00 - \$7.50 per trip, based on vehicle size
Philadelphia International	\$1.50 - \$22.00 per trip, based on vehicle size	No fees	\$1.50 - \$22.00 per trip, based on vehicle size
Salt Lake City International	\$1.02 per trip	\$0.85 - \$2.06 per trip, based on vehicle size	\$2.06 per trip
San Diego International	Permit fee: \$200 per vehicle per year	Permit fee: \$200 per vehicle per year	Permit fee: \$200 per vehicle per year
San Francisco International	\$3.55 per trip	\$2.90 per trip (b)	\$3.30 per trip
Seattle-Tacoma International	\$6.82 per trip	\$2.11 per trip	\$18.13 per trip
Washington-Dulles International	No fees	Permit fee: \$500 to \$750 per vehicle per year, \$1.00 per trip. Additional dwell time charges. (c)	\$0.62 per passenger

(a) Vehicles without permits pay \$50 each for the first two trips and \$100 per trip thereafter.

(b) Triple per trip fees for non-alternative-fueled vehicles or hotels/motels not operating consolidated vehicles.

(c) Trip fees apply to operators exceeding 300 trips per month. 50% discount on all fees for 'green' vehicles.

Source: Jacobs Consultancy, from information provided by airport operators.

Table C-4
ANNUAL REVENUES PAID BY COMMERCIAL VEHICLE OPERATORS (2009)

Airport	Taxicabs	Shared-ride services	Private cars (on-demand limousines)	Pre-arranged limousines	Courtesy vehicles	Charter buses
Fort Lauderdale/Hollywood International	\$537,900	\$488,800 (both services combined)		\$0	\$247,700 (a)	\$40,300
Jacksonville International			Information not provided or unavailable			
Miami International (b)	\$2,500,000		Information not provided or unavailable			
Orlando International	\$1,528,607	\$3,386,404	n.a.	\$3,309,891 (all three services combined)		
Palm Beach International		\$267,000 (all three services combined)		n.a.	n.a.	n.a.
Tampa International			Information not provided or unavailable			
Charleston International			Information not provided or unavailable			
Chicago O'Hare International			Information not provided or unavailable			
Denver International	\$954,364	\$732,662	n.a.	\$537,927	\$958,814	\$49,925
Detroit-Metropolitan Wayne County			Information not provided or unavailable			
George Bush Intercontinental/Houston			Information not provided or unavailable			
Philadelphia International			Information not provided or unavailable			
Salt Lake City International	\$211,745	\$372,106	n.a.	\$94,505	\$176,143	\$1,250
San Diego International	\$59,000	\$34,400	n.a.	\$157,230 (c)	\$32,900	
San Francisco International			Information not provided or unavailable			
Seattle-Tacoma International (b)	\$2,385,000	\$3,600,000	\$161,519		\$2,204,000	\$350,000
Washington-Dulles International	\$3,500,000	\$160,000	Information not provided or unavailable		\$150,000 (d)	\$0

(a) Comprised fully of privilege fee paid by off-airport parking operators.

(b) 2008 revenues.

(c) Includes fees paid by charter buses.

(d) Estimated fees for first year of implementation.

Source: Jacobs Consultancy, from information provided by airport operators.

**Table C-5
ANNUAL AIRPORT EXPENSES FOR MANAGING COMMERCIAL VEHICLE OPERATORS (2009)**

Airport	Taxicabs	Shared-ride services	Private cars (on-demand limousines)	Pre-arranged limousines	Courtesy vehicles	Charter buses
Fort Lauderdale/Hollywood International	See Appendix B for estimated allocation of cost between operators.					
Jacksonville International	Information not provided or unavailable					
Miami International	Information not provided or unavailable					
Orlando International	Very minimal and difficult to isolate from all other landside operations expenses.					
Palm Beach International	Very minimal and difficult to isolate from all other landside operations expenses.					
Tampa International	Information not provided or unavailable					
Charleston International	Information not provided or unavailable					
Chicago O'Hare International	\$6,000,000	Information not provided or unavailable				
Denver International	Information not provided or unavailable					
Detroit-Metropolitan Wayne County	Information not provided or unavailable					
George Bush Intercontinental/Houston	Information not provided or unavailable					
Philadelphia International	Information not provided or unavailable					
Salt Lake City International	Very minimal and difficult to isolate from all other landside operations expenses.					
San Diego International	\$995,444 (a)	\$33,884	n.a	\$19,291	\$347,621	\$1,929
San Francisco International	Information not provided or unavailable					
Seattle-Tacoma International	\$1,294,906	\$482,249	n.a	\$465,824	\$2,208,951	\$128,947
Washington-Dulles International	\$2,500,000	Airport staff are responsible for managing all modes except taxicabs. Costs are approximately the cost of 2 to 2.5 full-time-equivalent employees.				

(a) Taxicab dispatch costs comprise approximately \$750,000 of these fees.

Source: Jacobs Consultancy, from information provided by airport operators.