FY 2010-11 SHORT RANGE TRANSIT PLAN

FINAL REPORT

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Imperial County Transportation Commission (ICTC)

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INTRODUCTION

This *Short Range Transit Plan* (SRTP) for the Imperial County Transportation Commission (ICTC) is the result of a planning process that involved the examination of transit, socio-economic and demographic data, as well as an extensive public outreach process that involved meetings with members of the public and current transit system riders, as well as interviews with community stakeholders. The information gathered during this planning process was utilized to develop a set of recommendations for both the IV Transit fixed route bus system and the various demand response transit services operated throughout Imperial County.

The SRTP presents the proposed improvements to the IV Transit system in three phases, and those for the demand response services in two phases. Recommendations for consideration as part of Imperial County's Long-Range Transit Vision are also provided. Finally, estimated impacts on the operating funding needs, the capital requirements and various other operational measures are also provided as part of this SRTP.

1.0 DEVELOPMENT OF GOALS/OBJECTIVES AND STANDARDS/GUIDELINES

This chapter outlines goals for the Imperial County Transportation Commission's (ICTC) transit system and objectives for this Short Range Transit Plan, as well as outlines standards and guidelines for the transit system and evaluates the existing services against them. Service standards and guidelines are presented separately for ICTC's fixed route services (IV Transit) and demand response services (AIM Transit/IVT Access, Med-Express, Dial-a-Ride services). For the purpose of this study, standards represent those requirements stipulated in the operating contracts for each service while guidelines represent appropriate goals considering the level and type of service provided.

1.1 Goals and Objectives

This section identifies goals and objectives for ICTC transit services going forward. Based on the 2004 Short Range Transit Plan (SRTP), "the mission of Imperial County's public transit system is to improve the quality of life for the residents of Imperial County through a coordinated, accessible, affordable and efficient countywide transportation system." Similarly, the vision statement is that "the transit network provides safe, affordable and reliable transportation service that first meets the needs of the transit dependent in communities within Imperial County by providing access to healthcare, education, employment, public services, shopping and recreational facilities, and eventually allows anyone to go anywhere in the region easily and effectively."

Overall, the goals of the transit system, based on those adopted in the 2004 SRTP, are outlined below. These goals may be adjusted through this SRTP process. One potential new goal would be to attract choice riders and not only the transit dependent; however, if choice riders are to be pursued, implications such as some shifting of planning and resources away from the transit dependent to those with other mobility options must be acknowledged. The existing goals are as follows:

1. Provide mobility to all residents of Imperial County. Service levels are determined by demand, with all areas receiving service but those with more demand for transit receiving more service.

2. Connect residents of Imperial County with medical, social service and educational facilities throughout the county.
   a. Resources should be deployed with the following priorities (ranked 1-4): (1) access to major medical and social services facilities, (2) access to educational facilities, (4) access to employment.
   b. Support economic development such as commercial centers, retail and entertainment destinations.

c. Provision of transit as a transportation alternative for the general public.

In order to move toward these goals for ICTC's transit system, this study should work to:

1. Maximize the efficiency of the system by deploying appropriate resources to areas where they are needed most.
   a. Reduce crowding and increase frequency in denser areas where appropriate
   b. Provide an appropriate amount of service for rural areas
   c. Encourage coordination between all services, including cross-training between agencies (including those that are competitors) and the ability to cover service for other providers
   d. Eliminate duplicate services

2. Maximize usage of the system by serving all major trip generators and ensuring passengers can make the necessary connections to reach those destinations.

1.2 Service Standards and Guidelines – Fixed Routes

This section presents existing performance standards and proposed service guidelines for the fixed routes and lists IV Transit's performance against each. It should be noted that viewing any system with regard to a set of goals or guidelines requires an understanding of local conditions as well as the trade-offs associated with providing service. For example, in some cases it will be acceptable to fall below the target; e.g., while it is desirable to provide service at 30-minute frequencies during peak periods, doing so in less dense areas might mean not meeting the guidelines for fiscal condition. This analysis discusses these issues and the competing requirements of providing extensive coverage and frequent service while maintaining cost effectiveness. It will identify where guidelines should be met, and where guidelines should be used as goals for ICTC to use in planning future service changes. Service standards are outlined in the service contracts under which First Transit, ARC[1] and Sunrise operate, and differ according to each contract. Service guidelines have been created for both fixed route and demand-responsive services and are thus presented separately.

Fixed route service in Imperial County is provided by Imperial Valley Transit (IVT) under contract with First Transit, Inc. All fixed routes are subsidized and administered by ICTC. Fixed route services can be classified into the following 10 routes or route groups, shown in Table 1-1 below. Routes are classified into groups based on service zone (Primary Corridor Zone, Secondary Corridor Zone and Remote Zone) and service function (main service, lifeline service, direct/express service, El Centro circulator, IVC express). In the Remote Zone, deviation is available up to ¾ mile from the route.

Table 1-1: Fixed Route Services

Route	Service Zone	Function	Towns Served	Days of Service	Hours of Service	Headway	Notes
50/200 El Centro-Niland	Primary Corridor Zone	Main Service	El Centro, Imperial, Brawley, Westmorland, Calipatria, Niland	Weekdays Saturdays	M-F 5:45 AM – 10:45 PM; Sa 6:30 AM – 8:17 PM	M-F 70 min; Sa 180 min (AM), 120 min (PM)	Service to Westmorland, Calipatria and Niland ends by 7:00 PM
100/150 El Centro-Calexico	Primary Corridor Zone	Main Service	El Centro, Heber, Calexico	Weekdays Saturdays	M-F 5:45 AM – 11:23 PM; Sa 6:06 AM – 7:20 PM	M-F 70 min; Sa 180 min (AM), 120 min (PM)	

[1] Operation of AIM Transit was taken over by First Transit, Inc. on July 1, 2011. At that time, AIM Transit was re-branded IVT Access. Med-Express, and the El Centro, Imperial and West Shores Dial-a-Ride services continue to be operated under contract with ARC – Imperial Valley.

Route	Service Zone	Function	Towns Served	Days of Service	Hours of Service	Headway	Notes
300/350 El Centro-Holtville	Secondary Service Zone	Main Service	El Centro, Imperial, Holtville, Winter Haven	Weekdays Limited Sat	M-F 6:08 AM – 7:40 PM; Sa 7:08 – 8:05 AM and 1:20 – 7:20 PM	M-F 5 round trips, Sa 2 outbound (300) and 3 inbound (350) trips	Service to Winterhaven Wednesday only (on request) Deviation available in Remote Zone only.
400/450 El Centro-Seeley	Secondary Service Zone	Main Service	El Centro, Seeley, Ocotillo (400), Imperial (450)	Weekdays	M-F 6:45 AM – 5:20 PM	4 trips daily (400)/5 trips daily (450)	Service to Ocotillo Tuesday only (on request). Deviation available in Remote Zone only.
500/550 Brawley-Bombay Beach	Remote Zone	Lifeline Service	Bombay Beach, Bashford Spa, Imperial Spa, Fountain of Youth Spa, Lark Spa, Niland, Calipatria, Brawley	Thursdays	9:10 – 10:25 AM; 4:28 – 5:45 PM	1 AM trip (inbound), 1 PM trip (outbound)	Service to Remote Zone communities available Thursday only (on request). Deviation available in Remote Zone only.
600/650 Calexico-Brawley	Primary Corridor Zone	Direct Service (Express)	Calexico Brawley	Weekdays	6:30 – 8:30 AM; 3:50 – 5:50 PM	2 trips AM each direction, 2 trips PM each direction	Additional fare required.
800 Brawley – El Centro	Primary Corridor Zone	FAST (Express)	Brawley El Centro	Weekdays	6:30 AM – 7:30 AM	1 trip inbound	Additional fare required.
750 Blue Line (Westbound/ Counterclockwise)	Primary Corridor Zone	El Centro Circulator	El Centro	Weekdays	6:00 AM – 6:38 PM	70 min	
850 Green Line (Eastbound)	Primary Corridor Zone	El Centro Circulator	El Centro	Weekdays	6:00 AM – 6:38 PM	70 min	
IVC-Niland	Primary Corridor Zone/ Secondary Service Zone	IVC Express	Niland Calipatria Westmorland Brawley Imperial	School Days	6:19 – 9:50 AM; 2:00 – 5:11 PM	2 inbound AM and 2 outbound PM trips	Discounted fare for students.
IVC-Calexico	Primary Corridor Zone	IVC Express	Calexico Imperial	School Days	6:28 – 9:43 AM; 12:30 – 4:21 PM	3 inbound AM and 3 outbound PM trips	Discounted fare for students.

Source: IV Transit Public Timetables

1.2.1 Contractual Service Standards

Each contract for First Transit, Inc. to operate fixed-route bus service in the Imperial Valley includes service standards based on performance metrics regarding productivity (passengers per hour, passengers per day), efficiency (cost per hour, cost per mile) and cost effectiveness (cost per passenger, subsidy per passenger, farebox recovery). The performance standards are negotiated at the beginning of the contract based on "stretch" goals or a five-year average and service is not expected to meet every standard each year. The standards presented in Table 1-2 below were set in 2004 – new service standards went into effect on July 1, 2011 with the commencement of the new service contract. Service standards vary per contract, and thus are presented separately below for the bulk of IV Transit's fixed service, the Blue Line and the Green Line. Additionally, they apply to all routes in aggregate under each contract, rather than to individual routes.

Table 1-2: Fixed Route Contractual Service Standards

Performance Metric	Contractual Standard	Actual (2009-10)	Minimum or Maximum?	Meets Standard?
IV Transit				
Passengers/Hour	20.0	21.4	Minimum	Yes
Passengers/Day	1,200.0	1,875.8	Minimum	Yes
Cost/Hour	$101.00	$105.89	Maximum	No
Cost/Mile	$4.44	$4.81	Maximum	No
Cost/Passenger	$6.50	$4.96	Maximum	Yes
Subsidy/Passenger	$5.50	$4.10	Maximum	Yes
Farebox Recovery	14.5%	18.9%	Minimum	Yes
IVT Blue Line				
Passengers/Hour	12.0	4.9	Minimum	No
Passengers/Day	120.0	61.8	Minimum	No
Cost/Hour	$95.00	$79.70	Maximum	Yes
Cost/Mile	$4.50	$6.54	Maximum	No
Cost/Passenger	$5.50	$16.24	Maximum	No
Subsidy/Passenger	$4.50	$15.60	Maximum	No
Farebox Recovery	14.5%	3.9%	Minimum	No
IVT Green Line				
Passengers/Hour	12.0	1.9	Minimum	No
Passengers/Day	120.0	24.3	Minimum	No
Cost/Hour	$95.00	$79.72	Maximum	Yes
Cost/Mile	$4.50	$6.92	Maximum	No
Cost/Passenger	$5.50	$41.21	Maximum	No
Subsidy/Passenger	$4.50	$40.54	Maximum	No
Farebox Recovery	14.5%	1.6%	Minimum	No

Source: Imperial County Transportation Commission

IV Transit fixed routes (not including the Blue and Green Lines) meet all standards for productivity and cost effectiveness, but neither standard for efficiency. Cost per hour and cost per mile exceed the maximum by 8 percent and 5 percent, respectively. The Blue Line and

Green Line services each only meet one standard: cost per hour, one of the two standards the other fixed routes do not meet.

1.2.2 Proposed Service Guidelines

Table 1-3 presents a summary of the proposed service guidelines for ICTC's fixed route system. A performance evaluation based on weekday operations follows. These guidelines are intended for general planning purposes and represent standards used across the industry. The individual guidelines are most applicable to the more urban communities within the county; it is not necessary for every route to meet every guideline.

Table 1-3: Fixed Route General Service Guidelines

Category	Guideline(s)
Service Coverage	
Availability	Residential areas • 90% of population within ¼ mile of a bus route • Route spacing guide presented in Table 3-4 Major activity centers • Employers or employment concentrations of 200 or more employees • Health centers • Middle and high schools • Colleges/universities • Shopping centers of over 25 stores or 100,000 square feet of leased retail space • Social service/government centers
Frequency	Arterial routes: 30-minute peak, 60-minute off-peak Crosstown/neighborhood/shuttle services: 60-minute service all day
Span	5:00 AM to 10:00 PM on weekdays 6:00 AM to 7:00 PM on Saturdays
Directness	Maximum of 25% transfer rate
Patron Convenience	
Speed	20-25 MPH maximum on regular routes 10-15 MPH maximum for downtown shuttle services Higher speeds acceptable for outlying services
Loading	25% standees for short periods acceptable
Bus Stop Spacing	5 to 7 stops per mile in the core (every other block) 4 to 5 stops per mile in the fringe areas, as needed based on land uses
Dependability	No missed trips 95% on-time service (0 to 10 minutes late) No trips leaving early
Road Call Ratio	4,000 to 6,000 miles per road call
Fiscal Condition	
Fare Structure	Qualitative criteria
Farebox Recovery	Lower performing routes should be considered for alteration to improve performance.
Productivity (Passengers/Hour)	Lower performing routes should be considered for alteration to improve performance.
Passenger Comfort	
Waiting Shelters	At all stops with 25 or more boardings per day
Bus Stop Signs	At all stops, denoting system, contact information, and route(s) serving that stop
Revenue Equipment	Clean and in good condition
Public Information	Timetable, maps and advertising

Service Coverage

This broad category covers guidelines for availability, frequency, span and directness.

Availability

One of the key decisions in providing transit is determining where service should be provided and the spacing of bus routes. Service coverage and congruency analyses provide a baseline evaluation of service availability. Service coverage analysis looks at bus routes and their relationship to areas of high population density and poverty status, and service congruency analysis looks at bus routes and their relationship to the locations of major trip generators.

This guideline is divided into two separate components that reflect travel concentrations: trip purpose and the need for bus service. Availability guidelines are developed for the residential trip end that produces travel and the non-home end that attracts travel. A description of each is provided below:

- **Production End (Coverage)** – Determination of which residential neighborhoods should be candidates for service is a function of reasonable walking distance. Numerous studies have indicated that the maximum distance an average person can reside from a bus stop and still be considered to "have service" is one-quarter mile, which is approximately equal to a five-minute walk. However, income and mobility as well as population density, environmental conditions (such as extreme cold, heat or wind) and fixed barriers (fences, walls, roadways/sidewalk layout) must be considered when applying this rule of thumb. Route spacing and existing service coverage are discussed in the following sections.

- **Attraction End (Congruency)** – Activity centers warrant transit service if they are large enough to attract an adequate number of transit trips. To assist in this determination, "threshold levels" have been established for different categories of activity centers. These threshold levels should serve as guidelines in determining which activity centers in each category should be given consideration for service. It should be noted that other factors, such as proximity of the center to existing bus routes, should be considered before providing new service to a major activity center.

    - *Health Centers* – Institutions consisting of hospitals, clinics, rehabilitation centers, mental health centers and nursing homes are significant destinations that should have access to transit service.

    - *Social Service/Government Centers* – Public agencies, government centers, community facilities and recreational complexes attract some volume of traffic. Since the nature and size of these facilities varies greatly, no numerical threshold

will be set. Judgment, as well as trip purposes and characteristics of the users (e.g., elderly and low income citizens) should be considered in deciding whether or not to serve a facility.

- *Educational Facilities* – Colleges, universities, vocational schools and secondary (middle and high) schools have been included in the availability guideline. Those institutions with an enrollment of at least 1,000 full-time students warrant consideration for service.

- *Employers* – Employers or concentrations of employers, such as businesses or industrial parks, with 200 or more employees are large enough to generate transit ridership.

- *Shopping Centers* – Shopping trips constitute a key reason for transit travel. Shopping centers (including malls and major plazas) with at least 25 stores or more than 100,000 square feet of leased retail space are large enough to warrant consideration for service, as well as the central business district(s) (CBD), neighborhood business districts and any other significant commercial attractions.

Route Spacing

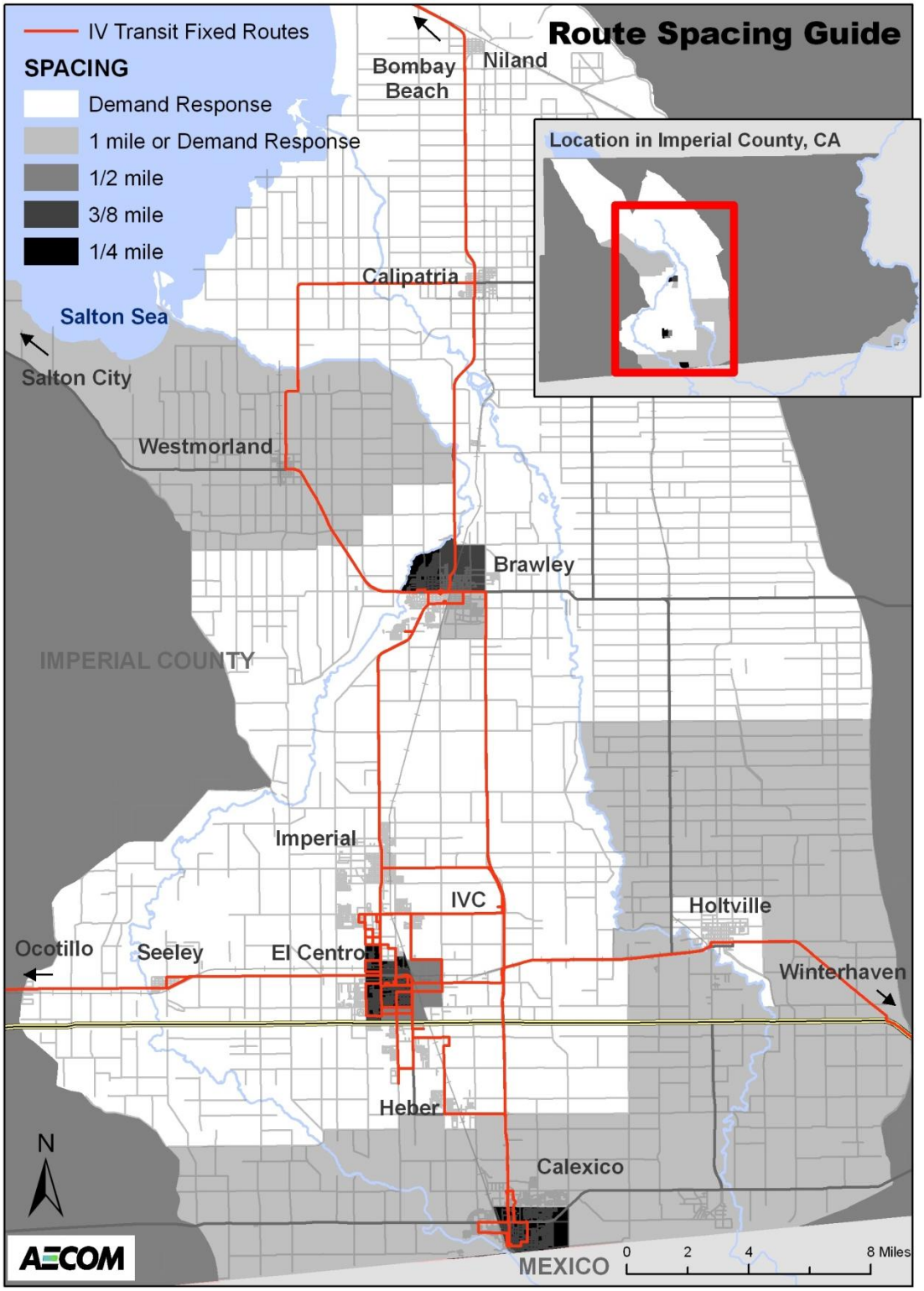
Table 1-4 lists the recommended route spacing guide given an area's population density and percentage of households without automobiles, which are the surrogates for income and transit dependency. Areas with low population density and low transit dependence given the number of cars available have lower requirements for transit service than do areas with high population density and greater transit dependence.

Table 1-4: Route Spacing Guide

% of Households without Automobiles	Population Density (Persons per Square Mile)			
	Over 6,400	4,500 to 6,400	2,500 to 4,449	Under 2,500
Over 15.0	¼ mile	¼ mile	⅜ mile	½ mile
10.0 to 15.0	¼ mile	⅜ mile	½ mile	1 mile or paratransit
5.0 to 9.9	⅜ mile	½ mile	1 mile or paratransit	-
Below 5.0	½ mile	1 mile or paratransit	-	-

Figure 1-1 applies these route spacing guidelines to Imperial County's population and the IV Transit route structure. Recommended route spacing generally produces a pattern of rings of increasing distance necessary between transit routes as one travels farther away from city or town central areas.

Figure 1-1: Imperial County Route Spacing Guide



Source: 2009 American Community Survey

The route coverage guide is just that – a guide. It is not an exact measurement. In some areas, the street pattern is not uniform of the trip generators are further apart than the guide indicates. IV Transit bus service should not conform to the guide in all areas. For example, high instances of zero-car households in the sparsely populated eastern and western census tracts result in the guide recommending 1-mile spacing between bus routes in these areas – due to extremely sparse population (and very large census tract areas), a large area of the map is influenced by a very small number of people (who could be served using a demand response service).

Service should, however, meet the intent of the guide – areas with more people and/or fewer cars need more transit service than sparsely populated or relatively affluent areas. Another consideration for warranting service is concentrations of elderly and disabled populations as well as multifamily housing developments. These socioeconomic characteristics are included in the transit score analysis, which is also the base map for the coverage analysis.

Coverage

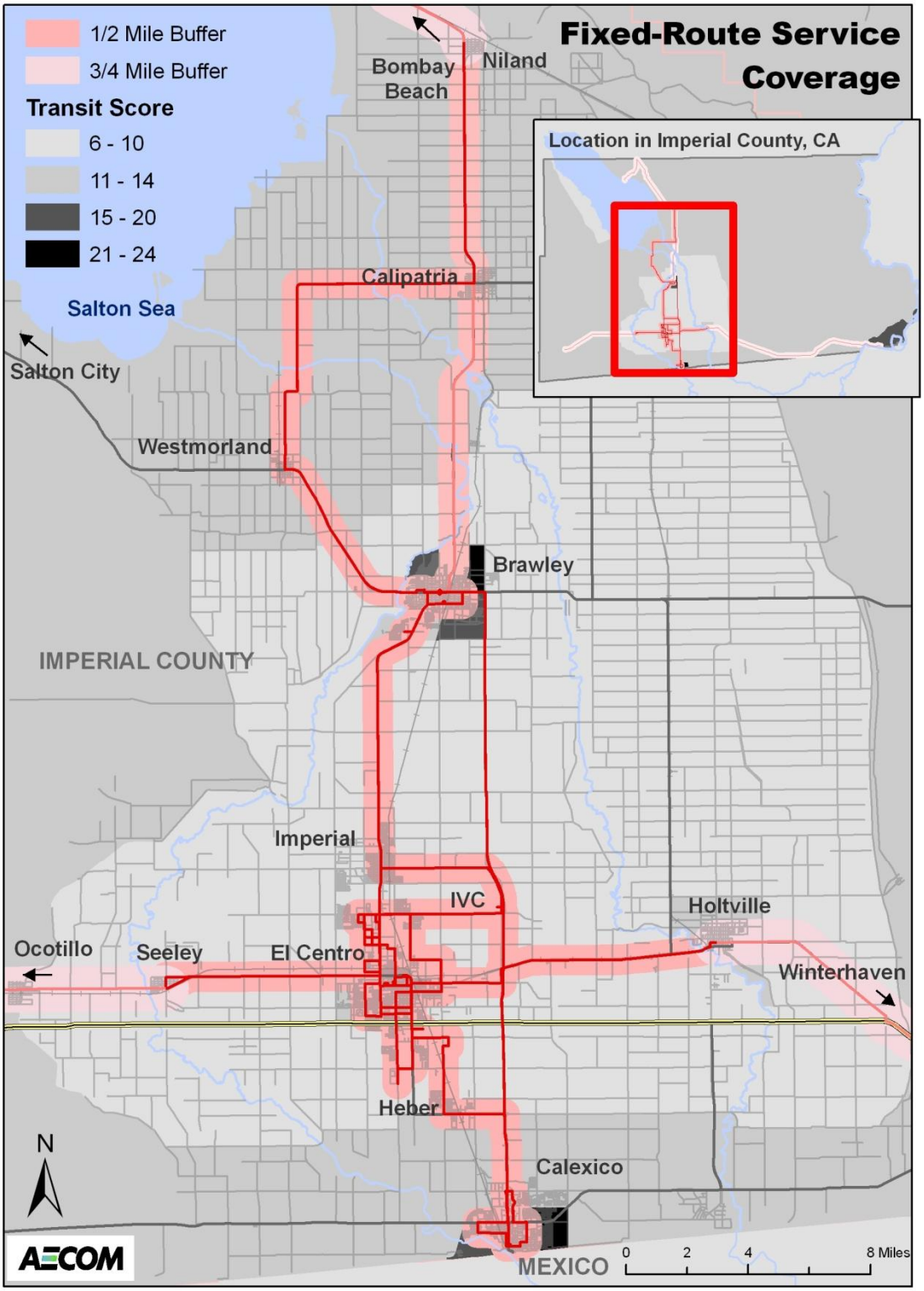
Service coverage analysis looks at the IV Transit system in comparison to the distribution of the population and socioeconomic characteristics (transit need score) in the region to see if any areas are currently un-served. Figure 1-2 is a map of the transit success score along with IV Transit routes and their coverage region (½ mile catchment area for regular routes, ¾ mile catchment area for deviated routes). Generally, areas with a high transit need are served, except in parts of Brawley (where the Gold Line circulator service has been proposed), parts of Calexico (where the Orange Line circulator service has been proposed, some of which is also served by the Calexico Transit System) and part of Winterhaven.

Service coverage and congruency analyses are used to evaluate the existing IV Transit fixed route system. These analyses provide the opportunity to identify un-served populations and un-served destinations within Imperial County that have a potential for transit success. Service coverage compares the IV Transit fixed route system to the underlying demographic and socioeconomic characteristics of the county's population; service congruency compares the IV Transit fixed route system to major transit generators in the county. Major employers in the county and their locations relative to the IV Transit fixed routes are also addressed in the congruency analysis.

Congruency

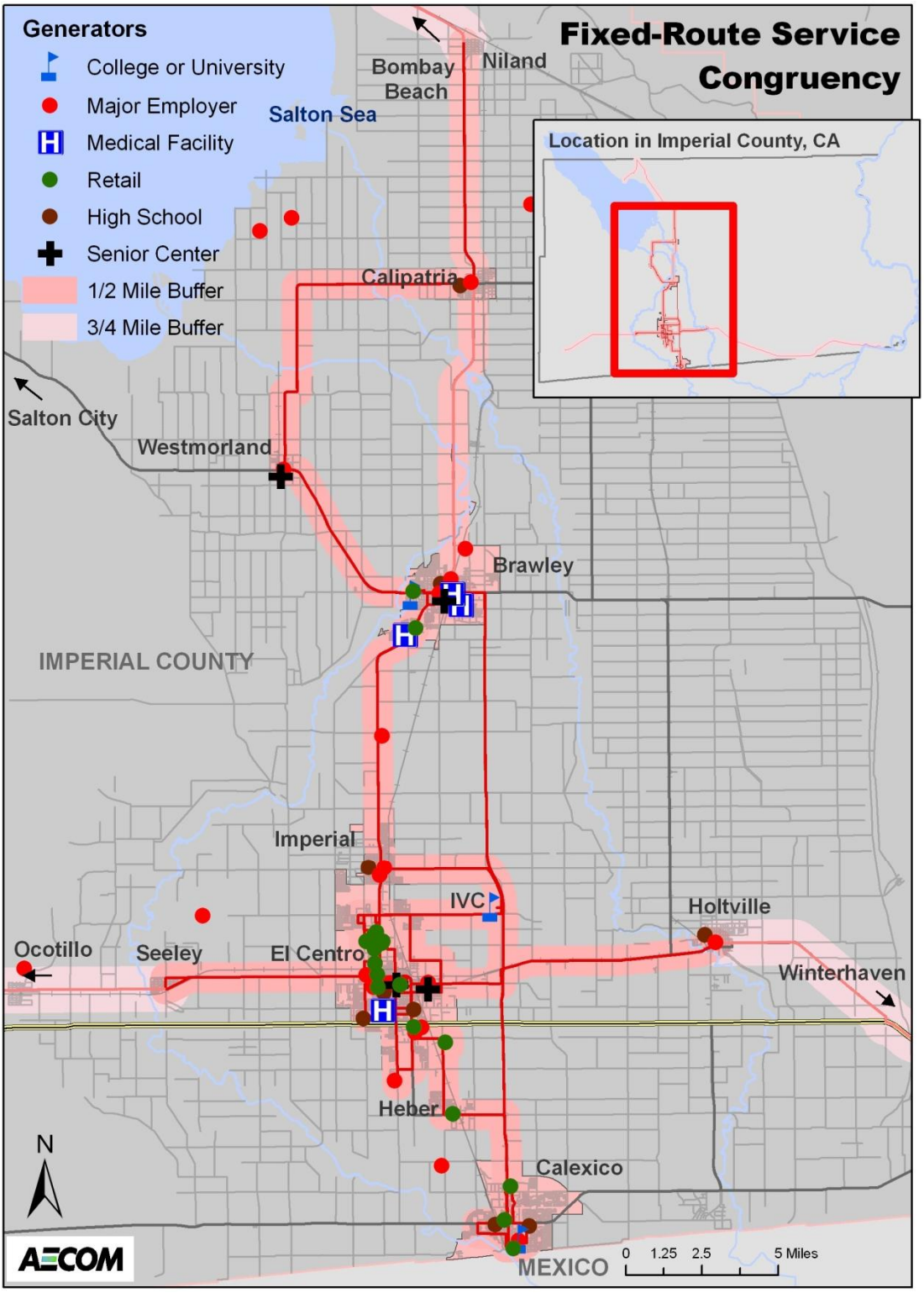
The congruency analysis looks at the IV Transit fixed route service area (the area within a quarter mile of the fixed routes) in comparison to the locations of major trip generators throughout the county. Major trip generators include: hospitals, shopping centers, major employers, government offices, schools, colleges and universities, and cultural and entertainment centers. Figure 1-3 provides a map showing IC Transit's service congruency.

Figure 1-2: IV Transit Coverage Analysis



Source: 2009 American Community Survey

Figure 1-3: Transit Congruency Analysis



Most major generators, including high schools, colleges and universities, major shopping destinations, government and social services offices, senior centers, hospitals and major employers are served. Some employers, such as the Calipatria and Centinela State Prisons (both of which require guards to provide their own transportation), CalEnergy and Ormat Technologies (in Heber) are not served. Currently, the Wal-Mart in Brawley is not directly served by fixed-route transit; however, fixed-route service operates nearby and a stop will be added on the proposed Gold Line circulator. Service is available only to the front gate of the Naval Air Station, via deviated service on Route 400/450.

Frequency

For the larger urban areas within Imperial County (El Centro, Calexico, Brawley, Imperial), the headway/frequency goal for all routes is 60 minutes Monday through Saturday during daytime and peak periods. This frequency guideline assumes that the intercity routes operate directly into the local transit center (with minimal local circulation) and meet the circulator routes for a timed transfer each hour. Guidelines for headways have to be balanced against the resources of the system and utilization of the routes. Currently the routes providing local service to the most urban portions of the county, including Routes 50/200, 100/150, and the Blue and Green Lines, must operate on 70-minute headways during daytime and peak periods on weekdays because of local circulation needs. In addition, the most frequent services on Saturdays, Routes 50/200 and 100/150, operate on 120-minute headways.

Span

Nationally, in communities the size of El Centro, Calexico, Brawley and Imperial, evening service is becoming more and more of a necessity. This is due to national trends of increased availability of evening classes and study opportunities, entertainment options, and the growth of second and third shift jobs. Later evening service improves mobility and access to jobs for transit users in Imperial County. In establishing the duration of service, both need/demand and the availability of funds must be considered. The minimum guideline for IV Transit for regular route service (again, in this case Routes 50/200, 100/150, and the Blue and Green Lines) should be 5:00 AM to 10:00 PM (16 hours) on weekdays and 6:00 AM to 7:00 PM (13 hours) on Saturdays.

Directness

Directness is gauged by determining the percentage of bus riders who must transfer to reach their destinations. For a system with radial routes, such as the IV Transit system, the rate of transferring is usually high and a guideline of 25 percent (transfer trips/revenue trips) is the maximum rate for transferring. Transfers are available in El Centro at 14th Street and State Street between Routes 50/200, 100/150, 300/350, 400/450, 800 and the Blue and Green Lines with connections to Routes 500/550 on Thursdays. No data is available on the number/proportion of riders transferring between routes.

Patron Convenience

This category includes guidelines for operating speed, loading, bus stop spacing, dependability, and road call ratio.

Speed

The set of guidelines for the operating speed of a bus route allow for the identification of routes that may be too long for the running time allotted or may be running slowly and unreliably due to congestion. These guidelines are indicators of safety and reliability: routes that are too long require drivers to speed to maintain the schedule, and very slow routes may create problems with on-time performance and transfers, particularly in a system comprised of radial routes which often require passengers to change buses in order to reach their destinations.

The guidelines, as shown in Table 1-2, are as follows:

- Regular routes should not exceed 20-25 MPH maximum
- Shuttle routes should not exceed 10-15 MPH maximum
- Higher speeds are acceptable for outlying services

Again, these guidelines are dependent on the density of population and trip generators and the frequency with which stops are made along a route. In rural areas or along express or non-stop routes speeds may exceed those included in the guidelines.

Table 1-5 lists average operating speed by route. Operating speeds were found by dividing the annual revenue miles for each route by the annual revenue hours for FY 2009-10. With an average operating speed of 23 miles per hour, the regular routes meet the guideline in the aggregate. Individually, Routes 100/250, 300/350, 400/450 and IVC Express Calexico meet the guideline, with Route 50/200 falling one mile per hour over the guideline. Routes 600/650, 800 and IVC Express Niland all exceed the guideline; however each of these routes operates closed-door express service through rural areas where higher speeds should be expected. Both the Blue and Green Line services meet the guideline, each with operating speeds of 12 miles per hour.

Table 1-5: IV Transit Average Operating Speed by Route

Route	Annual Miles	Annual Hours	Average Speed (MPH)
50/200 El Centro-Niland	268,164	10,151	26
100/150 El Centro-Calexico	124,816	8,135	15
300/350 El Centro-Holtville	65,965	3,043	22
400/450 El Centro-Seeley	24,059	1,232	20
500/550 Brawley-Bombay Beach	4,127	129	32
600/650 Direct Service	50,608	1,449	35
800 FAST Service	3,544	128	28
IVC Express Niland	31,625	915	35
IVC Express Calexico	18,333	1,047	18
Regular Route Average	**65,693**	**2,914**	**23**
750 Blue Line	38,791	3,184	12
850 Green Line	36,683	3,182	12
System Average	**60,610**	**2,963**	**20**

Source: FY 2009-10 IV Transit Operating Data

Loading

Passengers should be seated except for short periods of time associated with peak load periods, during which there should be no more than 25 percent standees for only a limited duration. No passengers should be standing for an intercity trip. Given ridership by trip data provided by IV Transit for 2009 and 2010, crowding seems to be a chronic problem on certain IV Transit Routes, particularly on Route 100/150 between El Centro and Calexico (worse on northbound/Route 150 trips) and to a lesser extent on Route 50/200 between El Centro and Niland. Trips exceeding 100 boardings over the course of the trip are a frequent occurrence on Route 100/150, which means many passengers are standing in crowded conditions for long distances on this 75-minute long intercity route.

Additionally, large numbers of passengers were noted on the IVC Express – Calexico route, with trips sometimes carrying more than 70 passengers. On an express route such as the IVC Express, geared towards shuttling students to campus, there is generally very little (if any) passenger turnover, meaning that upwards of 30 passengers must stand for 20 minutes or more on some trips. Routes demonstrating crowding in this manner, such as Route 50/200, Route 100/150, and the IVC Express – Calexico would greatly benefit from additional trips added to the schedule. As well as reducing crowding, increasing the frequency of these routes would likely attract additional riders.

While there is no minimum guideline for loading (minimum number of passengers onboard), consistent, small loads, such as those on Route 300/350, Route 400/450 and Route 500/550 may demonstrate an ability to use smaller vehicles in order to minimize operating expenses; however, on routes operating on headways exceeding an hour (sometimes exceeding two hours on these routes), it is important that any waiting passengers be accommodated so no-one is

left stranded by a full vehicle. Routes with low ridership, such as Route 500/550 (353 annual passengers in FY 2009-10, as compared with 591,040 systemwide), may be candidates for conversion to a demand-responsive service or combination with another service.

Bus Stop Spacing

The spacing of stops should balance patron convenience and speed of operation. The general guideline for urban downtown areas calls for a stop every other block, while in fringe areas stops can be as far apart as 0.20 to 0.25 miles (4 to 5 stops per mile), based on need. IV Transit stops in the urban areas of El Centro, Calexico and Brawley are located approximately 3-5 blocks apart, farther apart than the guideline; however, as these areas are generally low-density urban areas, there may not be a need for stops to be much closer together. In other towns, there are often only one or two bus stops in the center of town. Stops in rural areas between towns are limited to locations where there is demand.

Dependability

Riders require dependable service, defined as service that arrives on time and gets them to their destinations on time, particularly if they are going to work, school or an appointment. The guideline is two-fold: 100 percent of all trips should be operated (i.e., no missed trips) and 95 percent of the trips should run on time (i.e., not more than five minutes late). A caveat to the on-time requirement is that no trip should run ahead of schedule at any point along a route.

No trips were reported missed over the entire FY 2009-10, meeting that portion of the guideline.

IV Transit bases on-time performance on a 0-9 standard, meaning trips arriving up to 9 minutes late are considered on-time, while trips arriving early or 10 or more minutes late are not considered on time. On-time performance data provided for IV Transit for FY 2009-10 shows that monthly on-time performance (system-wide average) ranged from a low of 83.3 percent of trips on time to a high of 89.5 percent of trips on time, and average of 86.4 percent over the year. This does not meet the guideline requiring 95 percent of trips to be on time. Factors limiting on-time performance include vehicles delayed by sheep crossing the roadway, slow-moving farm equipment and railroad switching operations blocking grade crossings.

Road Call Ratio

This is a measure of dependability and quality for the customer, as the fewer the road calls, the fewer times customers are inconvenienced. The guideline for road calls is between 4,000 and 6,000 miles per road call. In FY 2009-10, IV Transit fixed route service had 26 road calls and one accident, which is one road call or accident per 27,356 miles, exceeding the guideline.

Fiscal Condition

These guidelines assess IV Transit's financial situation, the use of the IV Transit system, and the relationship of service used to the amount of service provided. While there are any number of possible criteria that can be used to define fiscal condition, three were selected for the purpose of defining general guidelines and overall condition: fare structure, farebox recovery and productivity.

Fare Structure

The fare structure should meet qualitative considerations set by local policy. It should be simple to understand, offer convenience to the user and generate reasonable revenues for the system.

The IV Transit fare structure is simple and straightforward – the region is divided into three zones: primary zone, secondary zone, and remote zone, each of which is described in Section 3.0 and outlined in Table 3-1. For service within one zone, the cash fare is $0.75 per person, $0.35 for seniors/disabled (including the Blue and Green Lines, which cost $0.75 per person). For service anywhere in the region (two or three zones), the cash fare is $1.00 per person, $0.50 for seniors/disabled. Discounted tickets are available in booklets of 20 for $12.00 (single zone) or $16.00 (all zones) in locations across the Imperial Valley (Calipatria, El Centro, Holtville, Imperial and Westmorland city halls, Imperial Valley College library and at the Imperial Valley Transit office). For senior/disabled passengers, booklets of 20 tickets cost $7.00 or $12.00. While Federal law mandates that senior (age 60 and up for IV Transit, as opposed to age 65 under Federal law) and disabled passengers pay only 50 percent of the regular fare during the off-peak periods, this discount is extended to IV Transit passengers during the peak periods as well.

Premium services have a slightly different fare structure. Route 600/650 "Direct" and Route 800 "FAST" services require passengers to pay a premium $2.00 fare, while those requesting deviations in the remote zones also pay $2.00. The IVC Express routes charge a fare of $1.50 for the general public, while students pay a discounted fare of $1.00.

Additionally, social services organizations can purchase coupons in bulk, valid for one ride, to distribute as needed. Transfers are free between routes, except to/from the Blue and Green Lines, which are operated under a different contract and require an additional full fare.

This fare policy is simple in structure and offers discounted/bulk tickets for frequent riders. While monthly passes may be desirable for frequent riders in order not to have to search for change each time using the bus, as well as to speed up the boarding process at busier stops, the demand for this type of pass may simply not justify the additional fare type. With regard to equity issues, the fare policy also offers a discount for senior/disabled riders. The fares themselves are very affordable, which can impact the farebox recovery ratio (see following guideline).

The following two guidelines (farebox recovery and productivity) apply to individual routes; both were also included in the aggregate (by contract, with the Blue and Green Lines seperate) in *Section 3.1 Contractual Service Standards*. In this section, guidelines for farebox recovery and productivity will be used to compare one route to another in order to guide future service planning.

Farebox Recovery

Farebox recovery measures the percent of operating cost covered by fares. It is an indicator heavily influenced by the ridership productivity of a route against its total operating cost, as well as the fare policy of the system. The average farebox recovery for IV Transit's fixed routes (excluding the Blue Line and Green Line) was 18.9 percent for FY 2009-10. Farebox recovery for the Blue Line was 3.9 percent and 1.6 percent for the Green Line. Table 1-6 below shows farebox recovery ratios for each fixed route, excluding the Blue and Green Lines. Data in the table is based on the month of June 2010 and excludes coupons (obtained by riders from social services organizations), represent only cash fares and 20-ride tickets collected. Altogether, the average farebox recovery for the fixed-route system (excluding the Blue and Green Lines and coupons) was 19.8 percent.

Table 1-6: Farebox Recovery by Route

Route	Farebox Recovery	Percent of Average	Number of Coupons
50/200 El Centro-Niland	16.5%	83.1%	39
100/150 El Centro-Calexico	26.3%	132.4%	6
300/350 El Centro-Holtville	3.4%	17.3%	203
400/450 El Centro-Seeley	4.1%	20.8%	121
500/550 Brawley-Bombay Beach	1.6%	8.1%	1
600/650 Direct Service	42.0%	211.5%	0
800 FAST Service	26.9%	135.4%	0
IVC Express Niland	9.7%	48.7%	102
IVC Express Calexico	43.1%	217.4%	1,244
Regular Route Average	**19.8%**	**100.0%**	**191**

Source: October 2009 IV Transit Operating Data

IV Transit routes generally fell into two categories: those with very high farebox recovery ratios (140 percent or greater of the system average) and those with very low farebox recovery ratios (less than 35 percent of the system average). Routes with the highest farebox recovery ratios included IVC Express – Calexico, Route 600/650 Direct Service from Brawley to Calexico, Route 800 FAST Service and Route 100/150 El Centro-Calexico, all of which exceeded the system average. Only Route 50/200 El Centro-Niland fell in the middle, at 83.1 percent of the system average. Routes 500/550 Brawley-Bombay Beach, 300/350 El Centro-Holtville, 400/450 El Centro-Seeley and the IVC Express-Niland all fell below 50 percent of the system average.

Routes 600/650 and 800 require premium fares, contributing to high farebox recovery ratios on these routes; high productivity (riders per mile) contributes to the high farebox recovery ratios of Routes 100/150 and IVC Express – Calexico. In addition to fares, coupons were used most frequently on IVC Express Calexico and Route 300/350 El Centro-Holtville, followed by Routes 400/450 El Centro-Seeley and IVC Express – Niland. In the case of Routes these routes, farebox recovery would be much higher if coupon revenues were considered.

Productivity (Passengers/Hour)

Similar to farebox recovery, this route-by-route guideline relates individual route performance to the overall fixed-route system performance. For the service guideline section, productivity is measured in passengers per hour. IV Transit averages 21.4 passengers per hour on the fixed routes (excluding the Blue and Green Lines), with 4.9 passengers per hour on the Blue Line and 1.9 on the Green Line. Table 1-7 shows productivity by route.

Table 1-7: Productivity by Route

Route	Annual Passengers	Annual Revenue Hours	Productivity (Pass/Hr)	Percent of System Average
50/200 El Centro-Niland	178,806	10,151	17.6	97%
100/150 El Centro-Calexico	288,098	8,135	35.4	196%
300/350 El Centro-Holtville	14,695	3,043	4.8	27%
400/450 El Centro-Seeley	8,195	1,232	6.6	37%
500/550 Brawley-Bombay Beach	353	129	2.7	15%
600/650 Direct Service	29,533	1,449	20.4	113%
800 FAST Service	1,118	128	8.8	48%
IVC Express Niland	7,158	915	7.8	43%
IVC Express Calexico	41,303	1,047	39.4	218%
Regular Route Average	569,259	26,229	21.6	120%
750 Blue Line	15,625	3,184	4.9	27%
850 Green Line	6,156	3,182	1.9	11%
System Average	591,040	32,595	18.1	100%

Source: FY 2009-10 IV Transit Operating Data

As with farebox recovery, IV Transit has two sets of routes: those which are very productive, and those which are not. The most productive routes include the IVC Express – Calexico, Route 100/150, Route 600/650, and Route 50/200. These routes all perform near or above the system average. All other routes, including Route 300/350, Route 400/450, Route 500/550, Route 800, the IVC Express – Niland, and the Blue and Green Lines perform below 50 percent of the system average. As per ICTC policy, the higher performing routes allow for service to be continued to the lower performing routes (generally serving the more rural areas of the county) while maintaining a reasonable systemwide average productivity. The Blue and Green Lines were both implemented in the past five years and have shown year-over-year ridership growth. These routes, both in El Centro, combined with the proposed Orange Line in Calexico, Gold Line

in Brawley and Red Line in Imperial, represent the beginnings of a series of community circulator routes connecting to the intercity routes throughout the county.

Passenger Comfort

Passenger comfort guidelines pertain to the passenger environment that is provided for IV Transit passengers. These guidelines examine the placement and condition of shelters and bus stop signs, the comfort and condition of the revenue equipment, and the quality of public information.

Waiting Shelters

The recommended guideline for waiting shelters for a system of this size is to place one at any stop location having 25 or more daily boardings, generally spread throughout the day (e.g., not 25 boardings for a single load and no boardings for the remaining part of the day). Stops with 15 or more daily boardings should be considered for future shelter/bench placement. Out of 117 IV Transit stops, 41 have shelters 19 have trash cans and 90 have signs. Bus stop amenities are funded and maintained at the local (town/city) level, and the design of amenities varies by jurisdiction. Imperial County's bus stop inventory is listed by locality in Table 1-8.

Table 1-8: Bus Stop / Amenity Inventory

City	Stops	Shelters	Trash Cans	Signs
Brawley	20	11	1	16
Calexico	14	5	1	12
Calipatria	4	2	2	2
El Centro*	55	13	13	45
Holtville	2	1	1	2
Imperial	3	2	0	2
Westmorland	2	2	0	2
County/Other**	17	5	1	9
Total	**117**	**41**	**19**	**90**

Source: ICTC Bus Stop Inventory

*Data available for 48 of 55 stops (includes 19 Blue/Green Line only stops). **Data available for 15 of 17 stops.

Table 1-9 shows IV Transit fixed route stop locations with total daily boardings of 15 or more. All have shelters except the southbound stop at State Street/14th Street in El Centro, IV Transit's central transfer location. (The northbound stop at this location has a shelter.) Ordinarily it would be recommended to install a shelter at this location; however, planned construction of a new transfer center at State Street/7th Street will preclude the need for a shelter at this location.

Table 1-9: Stop Locations with 15 or More Daily Boardings

City	Stop	Boardings	Shelter	Trash Can
Calexico	Third Street/Paulin	45	Yes	Yes
El Centro	State Street/14th Street (SB)	36	No	No
El Centro	State Street/14th Street (NB)	36	Yes	Yes
El Centro	Imperial Avenue/Pepper Street	20	Yes	No
El Centro	Bradshaw/Highway 86 (NB)	20	Yes	Yes
El Centro	Bradshaw/Highway 86 (SB)	20	Yes	Yes
Unincorporated	Imperial Valley College	43	Yes	Yes

Source: ICTC Bus Stop List

Bus Stop Signs

The guideline for bus stop signs is to have one at every stop denoting the name of the system and the route/routes served, as well as providing a telephone number for schedule information. Additionally, bus stop signs should be uniform throughout the system in order to provide consistent branding and minimize confusion for customers. Signs currently vary throughout the county and cannot be found at all bus stops – of 117 total stops, the county's bus stop inventory only shows 90 of them to have signs.

IV Transit bus stop signs are shown in Figure 1-4 below. The large sign at the bottom left, showing the outline of a bus, a "no parking" symbol and the words "bus stop" represents the standard IV Transit bus stop sign. The sign on the bottom right, which says "no parking, bus stop" represents the standard sign for Blue/Green Line stops in El Centro. The small sign on top denotes whether the Blue or Green Line stops at that bus stop (this small sign is not present at stops not served by these two routes). This sign does not meet the guideline – it is not uniform throughout the system, does not denote the name of the system, does not provide a number for schedule information and only denotes whether the Blue or Green Lines stop there.

Figure 1-4: IV Transit Bus Stop Signs

Source: Blue and Green Line Customer Information Pamphlets

Revenue Equipment

The IV Transit fixed route fleet, all of which operates using diesel fuel, is described below. The fleet varies in age, with the oldest vehicles being the 40-foot, fixed route buses, dating from 1988 and 1989. These vehicles, considered 12-year vehicles, were due for replacement in 2000 and 2001; they were rebuilt in 2005 (including new engines and upholstery), extending their service for seven more years. All ten 40-foot fixed-route vehicles are scheduled for replacement in October 2012. Additionally, five of the smaller, 5-year cutaway vehicles date from 2003 and 2004 and were due for replacement in 2008 and 2009. All other vehicles, including nine cutaways and two 30-foot transit buses, are due for replacement between 2012 and 2015.

Table 1-10: IV Transit Fleet

Number	Vehicle Year	Engine Model Year	Make	Model	Seating Capacity	Estimated Replacement
Revenue Vehicles						
8	1988 (rebuilt 2005)	2002	Gillig	40102tb6v92t	43	2012
2	1989 (rebuilt 2005)	2002	Gillig	40102tb6v92t	41	2012
1	2003	2003	Ford	E450 Champion	16	2008
3	2003	2003	Ford	E450 El Dorado National	17	2008
1	2004	2003	Ford	E450 El Dorado National	16	2009
3	2007	2006	Ford	E450 El Dorado	18/20	2012
2	2008	2008	Chevy	C5500 El Dorado	30	2015
1	2008	2008	Ford	El Dorado National	21	2013
3	2009	2009	Ford	E450 Starcraft	20	2014
2	2009	2009	Ford	E450 El Dorado	20	2014
Support Vehicles						
1	1997	1997	Chevy	Cheyenne	3	N/A
1	1998	1998	Ford	Crown Victoria	6	N/A
1	2000	2000	Ford	Crown Victoria	5	N/A
2	2006	2006	Ford	Focus – 4 Door	4	N/A

Source: February 2011 IV Transit Vehicle Master List

Public Information

Public information, including timetables, maps and advertising should be widely available as well as easy to read and understand.

- System Map - Currently, IV Transit has no system map, either online or in hard copy, which can lead to confusion among passengers about where routes actually go, what portions of the county are served, or where to transfer between routes.
- Website - Timetables and route-level maps are available on the IV Transit website, along with a basic trip planner showing how to travel between towns (but not specific locations within the towns). The website is not clear on where the transfer points are (except when using the trip planner) or where route-deviation is available (within ¾ mile of a fixed route in the Remote Zone). Remote Zone service is also not clear, as the timetables only show one trip to Ocotillo per week (no return trip) and only show morning service to Winterhaven (again, no return trip). A phone number should be provided and customers should be clearly advised when and how to call for service in the Remote Zone. Route 800 is missing from the website, and schedule information is dated and does not match that in the *Rider's Guide*. Website information should be updated as soon as possible after service changes, as dated materials can lead to confusion and frustration among riders and potential riders. Additionally, the graphics on the website are generally unattractive and difficult to navigate. Also, it is confusing to isolate the fixed route services from the rest of the ICTC sponsored services throughout the county: currently IVT Access has a separate website (as did AIM Transit), the Brawley and Calexico Dial-A-Rides have separate sites, and Med-Express and the other Dial-a-Ride services are only mentioned on ARC's website with no further information provided. It would make sense if information regarding IV Transit, IVT Access, Med-Express, and the Dial-a-Ride services was available on the same website, or at minimum if the separate sites were clearly linked.
- Printed Materials – A *Rider's Guide* booklet is available for information regarding most fixed route services, including up-to-date schedule and map information for all fixed routes except the Blue Line and Green Line. While the graphics could be a little more user-friendly, overall the presentation including system and fare information, schedules, and maps provides necessary information to riders. Important information is also presented in Spanish, which is critical in bilingual communities such as those in the Imperial Valley. This book could be improved by including a system map (see above) which would allow current and potential riders to more easily comprehend what parts of the county are served by the fixed route system as well as where transfers can be made between routes. Additionally, the book should include the Blue Line and Green Line services, to and from which riders on the other fixed routes frequently transfer. Demand response services such as the local Dial-a-Rides and the IVT Access and Med-Express services should also be mentioned (along with places to find additional information), particularly the Dial-a-Rides if transfers are made between Dial-a-Ride and fixed route service.

- Posted Materials at Bus Stops – While signage is included under "Bus Stop Signs" above, the busiest stops should also include schedule information. This means an up-to-date posted schedule for each route serving the stop, along with basic route maps (or diagrams) for each or, at minimum, a phone number passengers can call to obtain information. All transfer locations and stops with more than 25 boarding passengers per day are candidates for posted schedule information. Currently IV Transit does not provide information at stops.
- Other Comments –
    - Route nomenclature – The one-way route numbering, utilizing different route numbers for each direction of the same route, adds to customer confusion in understanding the system. Routes such as 50/200 and 100/150, which are represented as two different routes but in fact are not, should use one number and be viewed together both on the schedule and the map.
    - Contracts - While it is understood that different routes and services are operated under different contracts, this fact is not important to and should not impact current and potential riders. Information is generally separated by contract, and even different fixed routes (numbered routes vs. Blue Line/Green Line) are presented in different printed materials. Additionally, [free] transfers are not available between routes of different contracts. The guideline would be to present the entire system as seamlessly as possible, as a variety of different routes and services all with the common goal of improving mobility within the county.

1.3 Service Standards and Guidelines Demand-Response

Imperial County's demand responsive services are oriented to residents of the county who need specialized transportation of various types and are administered by the Imperial County Transportation Commission (ICTC) and local jurisdictions (for dial-a-ride services), with the operation of service by various providers. These programs include two countywide services, the Americans with Disabilities Act (ADA) complementary paratransit service which is called AIM Transit (renamed IVT Access as of July 1, 2011)[2] and a non-emergency medical transportation program that provides trips between Imperial County and selected San Diego county medical facilities. Additionally, community-based dial-a-ride services are coordinated by cities of Brawley, Calexico, El Centro, Imperial and the West Shores communities.

An inventory depicting the key characteristics of these services is presented in Tables 1-11 following. These seven public paratransit programs serve various ridership groups:

- ADA certified riders traveling within the ¾ mile envelope of IV Transit services, both within and between the cities and selected communities. Door-to-door service is available upon request.
- Other seniors and persons with disabilities traveling within the same ¾ mile envelope, served on a space-available basis.
- Seniors and persons with disabilities or other transit-dependent persons needing curb-to-curb trips and traveling within their respective communities of Brawley, Calexico, Imperial, El Centro, and the West Shores area.
- Persons from various sub-groups who need non-emergency medical trips to selected destinations in San Diego and can travel to the identified pick-up points within in Imperial County.

In terms of operating days, AIM Transit/IVT Access is providing service six days-a-week and Calexico Dial-a-Ride seven days-a-week. Each of the other communities is served only on weekdays, or in the case of West Shores, twice weekly on Tuesdays and Thursdays. The Med-Express service runs four days a week, alternating a Monday-to-Thursday and a Tuesday-to-Friday schedule every other week.

[2] When referring to the period up through FY 2010-11, AIM Transit/IVT Access will simply be referred to as AIM Transit.

Table 1-11: Imperial County's Public Demand Response Program Characteristics

Service	Service Area	Function	Rider Eligibility	Days of Service	Hours of Service	Reser-vations	Fare
AIM Transit [Areawide Independent Mobility] (IVT Access) 760-592-4494 www.ivtaccess.com	¾ mile of IVT routes Primary Zone and Secondary Zone corridors	ADA comple-mentary paratransit program; curb-to-curb	ADA certified persons; others, including seniors 60+ , as space available	Monday-Friday Saturday	6 a.m. – 9 p.m. Mon.-Fri. 6 a.m. – 5:30 p.m. Saturday	up to 14 days in advance; same day if space available	$3 ADA certified $2 or $1.50
Med-Express 760-337-8002 www.arciv.org	Trips between Imperial Co. and San Diego Co.	Non-emergency medical transport: 3 defined Imperial Co. pick-up points to selected San Diego destinations	Children, seniors, persons with disabili-ties, veterans, low-come-Category A riders General public – Category B riders	Four days per week Alternate: Monday-Thursday or Tuesday-Friday	Leaves IC 7:00 a.m. Brawley – 5 am Calexico – 5:45 am El Centro – 6:30 am Picking up San Diego 2:45 -3 pm return to Imperial County	At least 24 hours but up to 30 days in advance	$15 round trip – Category A riders $7 round trip – Attendants $30 round trip – Category B riders
Brawley Dial-a-Ride 760-344-5377 www.brawleydialaride.com	City limits of Brawley	Curb-to-curb	General Public	Monday-Friday	7 am to 5 pm No reserva-tions after 4 pm	Same day	
Calexico Dial-a-Ride 760-482-0184 www.calexico.ca.gov	City limits of Calexico	Curb-to-curb	Seniors 60+, persons with disabili-ties	Seven days a week	8 am to 5 pm	1 day in advance Same day, at least 60 min. in advance	$1.00
Imperial Dial-a-Ride 760-337-8002 www.arciv.org	City limits of Imperial; trips	Curb-to-curb	Seniors 60+, persons with disabili-ties	Monday-Friday	7 am to 4 pm	Same day requests as space available; advance to 14 days	50 cents within Imperial; $1.75 Imp. to El Centro
El Centro Dial-a-Ride 760-337-8002 www.arciv.org	City limits of El Centro	Curb-to-curb	Seniors 60+, persons with disabili-ties	Monday-Friday	7 am to 4 pm	Same day requests as space available; advance to 14 days	$1.50
West Shores Dial-a-Ride 760-394-4380 www.arciv.org	Salton Sea area, Vista del Mar, Torres Martinez	Curb-to-curb	General Public	Tuesday and Thursday	7 am to 4 pm	Same day requests as space available; advance to 14 days	$2.00

1.3.1 Contractual Service Standards

ICTC executes contracts for two services that provide different types of trips, the ADA service, AIM Transit (now IVT Access) and the non-emergency medical service, Med-Express. The local city governments hold the contracts for the individual community-based dial-a-ride programs. ICTC monitors various contract standards, set forth in its own contracts and on behalf of the city programs. As with the fixed routes, these standards are based on a five-year average (or goal) and are set at the beginning of the contract period. The demand response service standards were set when the most recent contract was signed in 2005. New standards are in effect as of July 1, 2011 with the signing of the new contract. Using data reported to ICTC by each provider, FY 2009-10 actual performance against these standards is presented in Table 1-12 below for each service (continuing onto the following page).

Table 1-12: Contractual Service Standards for Each Demand Response Service

Performance Metric	Contractual Standard	Actual (FY 2009-10)	Minimum or Maximum?	Meets Standard?
AIM Transit				
Pass/ Hour	2.0	3.0	Minimum	Yes
Pass/ Day	110	120	Minimum	Yes
Cost/ Pass	$22.75	$22.35	Maximum	Yes
Farebox %	10.0 percent	9.9 percent	Minimum	No
MedExpress				
Pass/ Hour	3.0	2.5	Minimum	No
Pass/ Day	20	21.4	Minimum	Yes
Cost/ Pass	$31.77	$32.18	Maximum	No
Farebox %	20.0 percent	29.8 percent	Minimum	Yes
Brawley Dial-a-Ride				
Pass/ Hour	8.1	5.4	Minimum	No
Pass/ Day	80.3	99.9	Minimum	Yes
Cost/ Pass	$3.34	$7.29	Maximum	No
Farebox %	10.0 percent	11.5 percent	Minimum	Yes
Calexico Dial-a-Ride				
Pass/ Hour	8.1	5.4	Minimum	No
Pass/ Day	42.2	116.9	Minimum	Yes
Cost/ Pass	$4.89	$8.04	Maximum	No
Farebox %	10.0 percent	10.0 percent	Minimum	Yes
El Centro Dial-a-Ride				
Pass/ Hour	5.1	6.2	Minimum	Yes
Pass/ Day	95.0	103.3	Minimum	Yes
Cost/ Pass	$4.63	$7.47	Maximum	No
Farebox %	20.0 percent	17.8 percent	Minimum	No
Imperial Dial-a-Ride				
Pass/ Hour	4.3	4.1	Minimum	No
Pass/ Day	45	31.8	Minimum	No
Cost/ Pass	$5.70	$13.74	Maximum	No
Farebox %	16.5 percent	11.7 percent	Minimum	No
West Shores Dial-a-Ride				
Pass/ Hour	5.0	2.7	Minimum	No
Pass/ Day	30	21.3	Minimum	No
Cost/ Pass	$19.63	$40.38	Maximum	No
Farebox %	10.0 percent	5.0 percent	Minimum	No

These seven services present a very mixed picture of performance, in relation to the existing ICTC standards. On farebox recovery ratio, critical to maintaining compliance with state statue and protecting the availability of LTF dollars, only three of the seven operators meet the standards established by ICTC – Med-Express, Brawley and Calexico Dial-a-Rides. Med-Express has achieved an impressive 29.8 percent farebox recovery, against a 20 percent standard. Brawley, at an 11.5 percent farebox recovery ratio, is just above its 10 percent standard and Calexico just at the 10 percent minimum farebox recovery standard. AIM Transit, at 9.9 percent is just below the minimum required 10 percent standard. El Centro's standard of 20 percent is above its 17.8 percent achievement, although that is well above the state's minimum required 10 percent threshold. For Imperial Dial-a-Ride, 11.7 percent farebox recovery is reported for this period, below its standard of 16.5 percent

In terms of cost per passenger, ICTC has established a standard in the contracts that it executes with AIM Transit, Med-Express and for the West Shores service. It identified a comparable standard in relation to the cities' dial-a-ride services. Only one service, AIM Transit, is meeting this cost-per-passenger standard: $22.75 per one-way trip and achieving $22.35 per passenger trip. As ADA complementary paratransit service is expensive to provide, this is an important achievement.

Four of the seven services met the standard of passengers per day, with AIM Transit, Med-Express, Brawley and Calexico each meeting and exceeding their individual per-day minimum standard number of riders.

The productivity standard of passengers per hour was met by two of the demand response programs. AIM Transit reported 3.0 trips per hour against a standard of 2.0 and El Centro Dial-a-Ride reported 6.2 trips per hour against its standard of 5.1 trips per hour. Imperial Dial-a-Ride was very close to its standard of 4.3, reporting 4.1 trips per hour for this FY 09/10 period.

The Imperial and West Shores Dial-a-Ride programs met none of the performance standards established for their services. Each of the remaining five programs met at least two performance standards with the exception of El Centro, which only met its passengers per hour standard. AIM Transit had the greatest success at meeting its targeted performance goals, meeting or exceeding four standards: passengers per hour, passengers per day, cost per passenger and farebox recovery ratio.

One change in these standards has occurred in recent years; between FY 2007-08 and FY 2008-09, the Imperial and El Centro Dial-a-Rides became restricted to senior/disabled passengers only (formerly the services were available to the general public), thus reducing the state-mandated fare recovery standard to 10.0 percent. Both services meet this standard.

1.3.2 Overall Service Performance in Relation to Standards

Three years of operating and performance data are presented in Table 1-13, in order to identify the system-level performance. As the table shows, the seven programs providing demand response services within Imperial County did so at an overall cost of about $1.83 million during the past fiscal year. This provided for 143,385 one-way passenger trips for a per-trip cost of $12.79 per rider.

For the demand response mode as a whole, the system-level farebox recovery ratio for the most recent reporting period was 11.5 percent. Ridership, fare revenues and farebox recovery levels declined over the last two years. Various reductions in operating days and hours were made in most services during the past fiscal year in response to decreased operating revenues from the Local Transportation Fund (LTF).

Table 1-13: Demand Response Operating and Performance Data

Demand Response Contract	Revenue Miles	Revenue Hours	Ridership	Cost	Fare Revenue	Farebox Recovery	Year-End Indicators
FY 2007-2008							
AIM Transit	206,054	12,060	36,303	$701,578	$72,859	10.4%	
Med-Express	56,477	1,608	3,713	$148,508	$27,282	18.4%	
Brawley DAR	52,529	5,193	26,780	$189,324	$23,048	12.2%	
Calexico DAR	88,363	8,630	45,607	$278,740	$39,230	14.1%	
El Centro DAR	38,028	3,418	18,760	$131,126	$23,363	17.8%	
Imperial DAR	36,190	2,340	11,910	$121,708	$17,458	14.3%	
West Shores DAR	47,717	2,040	5,680	$139,290	$5,680	4.1%	
Total FY 2007-2008	**525,358**	**35,289**	**148,753**	**$1,710,274**	**$208,918**	**12.2%**	
Farebox Recovery %							12.2%
Cost per Passenger							$11.50
Cost Per Hour							$48.46
Cost Per Mile							$3.26
Passengers Per Hour							4.2
FY 2008-2009							
AIM Transit	201,441	12,006	35,954	$722,453	$81,059	11.2%	
Med-Express	56,174	1,616	4,207	$137,126	$29,930	21.8%	
Brawley DAR	55,229	5,569	27,615	$189,324	$22,594	11.9%	
Calexico DAR	81,876	7,765	36,012	$324,772	26,957	8.3%	
El Centro DAR	51,803	4,561	25,681	$200,962	$34,560	17.2%	
Imperial DAR	35,824	2,291	10,997	$116,513	$16,275	14.0%	
West Shores DAR	32,220	1,543	4,084	$129,239	$7,167	5.5%	
Total FY 2008-2009	**514,567**	**35,351**	**144,550**	**$ 1,820,388**	**$ 218,542**	**12.0%**	
% change from prior year	**-2.1%**	**0.2%**	**-2.8%**	**6.4%**	**4.6%**	**-1.7%**	
Farebox Recovery %							12.0%
Cost per Passenger							$12.59
Cost Per Hour							$51.49
Cost Per Mile							$3.54
Passengers Per Hour							4.1
FY 2009-2010							
AIM Transit	194,688	11,168	33,246	$743,084	$73,569	9.9%	
Med-Express	56,447	1,608	3,713	$148,508	$27,282	18.4%	
Brawley DAR	53,605	5,339	28,575	$208,250	$23,968	11.5%	
Calexico DAR	96,124	7,759	41,601	$334,622	$33,390	10.0%	
El Centro DAR	45,587	4,189	26,022	$194,382	$34,510	17.8%	
Imperial DAR	25,279	1,950	8,016	$116,095	$13,541	11.7%	
West Shores DAR	17,522	806	2,212	$89,330	$4,424	5.0%	
Total FY 2008-2009	**489,252**	**32,819**	**143,385**	**$ 1,834,271**	**$ 210,683**	**11.5%**	
% change from prior year	**-4.9%**	**-7.2%**	**-0.8%**	**0.8%**	**-3.6%**	**-4.3%**	
Farebox Recovery %							11.5%
Cost per Passenger							$12.79
Cost Per Hour							$55.89
Cost Per Mile							$3.75
Passengers Per Hour							4.4

1.3.3 Americans with Disabilities Act (ADA) Complementary Paratransit Service Standards

Important background regarding service standards for Imperial County's public transportation program is found in the requirements of the Americans with Disabilities Act of 1990 (ADA). Those requirements relate to bus stop signage, bus stop design, vehicle accessibility and other accessibility and universal design issues. Of particular importance here are the specific requirements of the ADA as it pertains to the complementary paratransit service, which are available to persons unable to use fixed-route transportation due to a disabling condition.

The required primary service criteria are set forth in 49 CFR Part 37.131:

1. **Type of Service and Service Area** – demand responsive, origin-to-destination service is required for eligible riders within ¾ mile of the fixed-route service.

2. **Days and Hours of Service** – service shall be provided on all days and at all times at which the fixed-route service is operating for passenger transport.

3. **Fares** – passenger fares shall be no more than two times the base-fare rate for a fixed-route trip.

4. **Response Time** – scheduling of trips and provision of service to any ADA paratransit eligible person shall be made in response to a request for service made the previous day.

5. **Trip Purposes** – trips shall not be restricted based upon the trip's purpose.

6. **Capacity Constraints** – services shall not limit the availability of service to ADA paratransit eligible persons based upon restrictions on the number of trips an individual is provided, waiting lists for access to service or patterns or practices that significantly limit the availability of service to ADA paratransit eligible persons.

Of additional importance is the ADA complementary paratransit eligibility process. Section 49 CFR Part 37.125(b) states that all information related to eligibility and the eligibility determination process must be available in accessible formats, upon request. This involves making available the eligibility requirements, the application process and timeline or recertification processes to any individual who calls or writes to request an ADA application. The eligibility processes are explained in detail in Appendix D of CFR Part 37 and the appeals process is detailed in Appendix F of CFR Part 37.

In the ensuing years since the enactment of the ADA, FTA audits and industry best practices have served to clarify and further refine ADA complementary paratransit service expectations.

Among the key performance standards noteworthy here are:

- **Trip Denial Policies** – DOT ADA regulations allow transit agencies to negotiate pick-up times with a rider, provided the rider is not required to travel more than one hour before or one hour after the time requested. Otherwise, trip denials within the rider requested window are not allowable.

- **Vehicle Wait Time and Rider No-Show Policy** – Policies related to rider wait times and to no-shows are advised to be printed and publicly available.

- **On-Time Performance Standards** – It is advisable to have these printed and publicly available, defining what is on-time.

- **Customer Comments and Complaints** – It is advisable to have a formalized policy for receiving and processing customer comments, specifically complaints.

1.3.4 Demand Response Performance Guidelines for Rural Services

Finally, ICTC and its demand responsive providers need to provide for general performance standards and have developed individualized standards, as presented earlier in this chapter. Such individualized standards help to reflect the unique operating environment and service parameters of each demand responsive program. The *Transit Cooperative Research Program Report 136*: *Guidebook for Rural Demand Response Transportation: Measuring, Assessing and Improving Performance* (2009) (to be referred to as *TCRP Report 136*) provides some larger benchmarks against which to assess Imperial County's demand responsive performance guidelines.

TCRP Report 136 developed a typology for comparing rural systems, to help ensure more apples-to-apples comparisons. Three categories of programs are identified: 1) municipalities, serving individual communities; 2) county, serving a countywide area; and 3) multi-county, serving areas beyond the home-county. Imperial County has programs that fall into each of these three categories. AIM Transit/IVT Access is essentially a countywide program, although its service area within the county is defined in relation to ADA requirements. The Med-Express program is multi-county, as the service travels between Imperial and San Diego Counties. The city dial-a-rides are each municipal programs, with the exception that the Imperial Dial-a-Ride goes between El Centro and Imperial, delivering passengers within the city limits of both communities.

TCRP Report 136 identified 24 representative systems that met a variety of conditions and service parameters and which were willing to make their cost and reporting procedures available to the TCRP consultants for purposes of ensuring comparability. Table 1-14 is adopted from *TCRP Report 136* and reflects the median range of values for four key indicators

reported by these 24 representative systems, in relation to the municipal, county-wide and multi-county types of rural demand responsive programs.

These standards will be used to assess the performance of the individuals systems, contrasting them with these nationally reported performance guidelines.

Table 1-14: Summary Performance Data from Representative Rural DRT Systems and Influencing Factors

Adapted from TCRP Report 136: Guidebook for Rural Demand-Response Transportation: Measuring, Assessing and Improving Performance. (Transportation Research Board, Washington D.C., 2009, page 56.)

Representative Rural DRT System	Passenger Trips per Vehicle Hour (Effectiveness)	Operating Cost per Vehicle Hour (Cost-Efficiency)	Operating Cost per Vehicle Mile (Cost-Efficiency)	Operating Cost per Passenger Trip (Cost-Effectiveness)
Primarily Single-Municipality Systems (5 systems)	2.38 to 7.05	$35.23 to $74.04	$2.57 to $5.84	$5.00 to $31.17
Primarily Single-County Systems (10 systems)	2.06 to 6.23	$32.47 to $78.05	$1.49 to $5.75	$7.63 to $30.76
Multi-County Systems (7 systems)	1.57 to 4.34	$26.08 to $42.27	$1.16 to $2.67	$7.99 to $20.76
Factors Influencing Performance				
Controllable/ Partially Controllable	• Group trips for agency clients • Ability to group trips for unaffiliated riders, particularly for longer-distance trips • Use of AVL • Use of immediate response vs. advance reservations • Extent of long-distance, out-of-primary-service-area trips • Characteristics of contracted service (Medicaid / MediCal) • Measures to reduce deadhead; no-shows / late cancellations	• Administrative / overhead costs • Costs for operator labor	• Administrative / overhead costs • Costs for operator labor	• Administrative / overhead costs • Costs for operator labor • Group trips for human service agency clients and ability to group trips for unaffiliated riders • Use of AVL • Use of immediate response vs. advance reservation service • Extent of long-distance, out-of-primary-service area trips • Measure to reduce deadhead; no-shows, late cancellations
Uncontrollable	• Size of service area • Geographic constraints of service area • Requirements for long-distance, out-of-service area trips • Type of ridership, i.e. ADA versus non-ADA	• Type of organization, i.e. transit districts, city / county, private-non profit • Location of higher / lower labor-wage region of the country • Type of ridership, i.e. ADA versus non-ADA	• Type of organization, i.e. transit districts, city / county, private-non profit • Size of service area and its influence on miles traveled • Types of roadways, operating speeds; weather conditions	• Type of organization, i.e. transit districts, city / county, private-non profit • Size of service area, geographic constraints • Requirements for long-distance, out-of-area trips • Ridership – ADA vs. non-ADA

1.3.5 Summary and Conclusion

Fixed Routes

Overall, ICTC provides service to most residents throughout the county, and to most destinations that warrant service. Service is provided for an adequate span on some routes, but access to jobs outside of weekday, daytime hours is limited. No route operates more frequently than every 70 minutes, even during the peak periods, limiting passenger convenience and causing crowded conditions on the busiest routes.

Most routes exceed the recommended operating speed; however, most development in Imperial County is low density and much of the service area is rural, so higher speeds would be expected. Loading is not an issue on most routes, where excess capacity is available; however, a few routes, primarily those serving Calexico, can become very crowded. Bus stop spacing is generally okay, with stops slightly farther apart than the standard, again reflecting the low-density nature of the service area. No missed trips were recorded and very few trips are delayed due to breakdowns (based on the road call ratio); however on-time performance can be an area of concern, with 10 to 16 percent of trips arriving more than ten minutes late in FY 2009-10.

The fare structure is simple and includes appropriate discounts for senior, disabled and student passengers as well as the opportunity to purchase multiple trips at one time. Senior discounts are available to all passengers ages 60 and over during both peak and off-peak periods, exceeding the Federal requirement. Productivity and farebox recovery ratios for the system fall into one of two categories: some routes are extremely productive and demonstrate high farebox recovery ratios, even despite very low fares; other routes demonstrate low ridership per hour and low farebox recovery ratios, typical of policy-based routes operating in rural or low-density areas.

Shelters and benches are provided by local jurisdictions at the appropriate stops, including all stops with 25 or more daily boardings and at many stops with fewer boardings. Transfer facilities have been built or are planned or under construction at key locations. Bus stop signs are not consistent, and do not show route information (except those denoting Blue and Green Line stops) or a number to call for schedule/fare or other passenger information. It was also brought to attention that some signs are in very poor condition.

Revenue equipment shows a low road call ratio, and fixed route vehicles that were built in 1988-9 and retrofitted in 2005 are due and scheduled to be replaced in 2012. Information is available to the public in the form of a *Rider's Guide*, which contains most necessary information for using the fixed-route system (except the Blue and Green Lines), as well as flyers for AIM Transit (now IVT Access), Med-Express and the Blue and Green Lines. Information is also available on the web, but it is split between two websites: one for the fixed routes that is soon to be re-designed, and one for AIM Transit that is soon to be replaced by a new website for IVT Access). There is no system map available either online or in hard copy, although route

diagrams are available both online and in hard copy. Information regarding Dial-a-Ride services is difficult to find.

Demand Response

Imperial County has a breadth of demand responsive services to provide its residents with local curb-to-curb transportation, regional complementary paratransit service and inter-county non-emergency medical trips. The county's seven demand responsive services provided 143,385 one-way passenger trips during FY 2009-10, for an overall cost of about $1.83 million and a per-trip cost of $12.79 per rider.

The demand response system as a whole achieved a farebox recovery ratio of 11.5 percent, meeting California's minimum standard of a 10 percent ratio of fares to operating cost ratio for demand response programs and rural transportation programs. However, various indicators for the individual programs are not meeting the contractual standards set forth by ICTC and its city partners. The West Shores Dial-a-Ride, which is available to the general public as well as seniors and persons with disabilities, does not meet the state-mandated 10 percent minimum farebox recovery standard.

Federal ADA complementary paratransit standards apply to the county's ADA complementary paratransit service, AIM Transit/IVT Access. A recently published national study on rural demand responsive transportation, *TCRP Report 136*, provides benchmarks against which each program will be examined in the following phases of this study.

2.0 PUBLIC OUTREACH SUMMARY

This report presents a synopsis of public input received during initial public outreach efforts conducted to help guide development of the Imperial County Transportation Commission (ICTC) Short Range Transit Plan (SRTP). More than 240 people participated in initial public outreach activities that were undertaken during May 2011. These public outreach activities included stakeholder interviews, a bilingual public open house, and bilingual "bus stop workshops."

About ICTC

As the state-designated Regional Transportation Planning Agency for Imperial County, the ICTC is responsible for developing and updating a variety of transportation plans and for allocating the federal and state funds to implement them. The ICTC also contracts with transit operators to provide the Imperial Valley Transit fixed-route bus service, the Americans with Disabilities Act (ADA) paratransit services throughout the county and the West Shores Dial-a-Ride. The cities offer dial-a-ride services in Brawley, Calexico, El Centro, and Imperial. In addition, specialized service is available for the elderly, the disabled, and for others that need transportation to medical facilities in San Diego County.

Overview of the Short Range Transit Plan

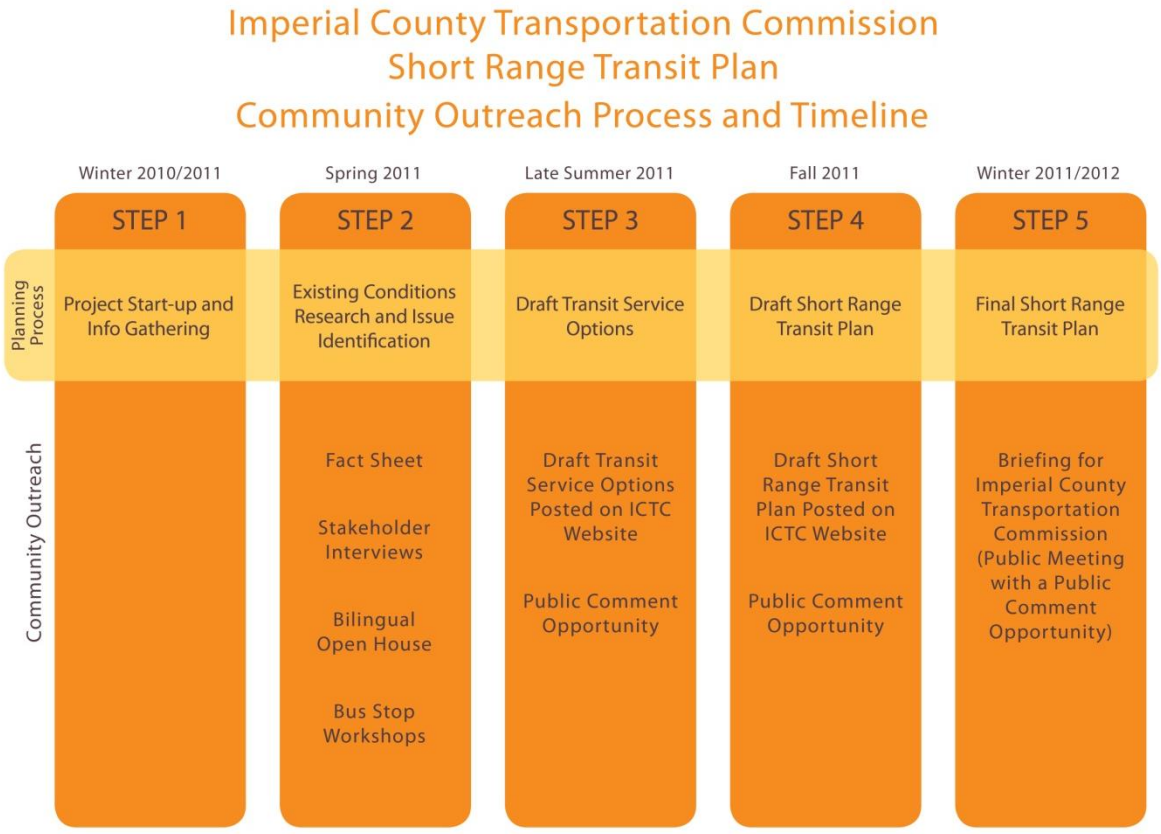
The purpose of the SRTP is to enhance public transportation service for existing and potential users of public transit within the ICTC's service area. An SRTP is a "master plan" for the programming of transit service and operations. It also outlines future transit system development and the new projects that are necessary for this development.

The SRTP for the ICTC will provide planning guidance for the next several years. Development of the SRTP is expected to take approximately 11 months, with completion anticipated in November 2011.

2.1 Initial Public Outreach Activities

The graphic below provides the approximate timeline for completing the ICTC SRTP and the public input opportunities associated with each step of the process. The initial public outreach activities summarized in this document are part of Step 2: Existing Conditions Research and Issue Identification. These activities included stakeholder interviews, a bilingual public open house, and bilingual bus stop workshops.

Initial public outreach activities conducted during Step 2 of the SRTP planning process focused on identifying transit service issues and ideas for improving ICTC's service. More than 240 people participated in these outreach activities. Ideas and issues raised by participants during the initial public outreach effort will help guide the development of draft transit service options during Step 3 of the SRTP planning process. Opportunities for public comment on SRTP work products will be available during each of the remaining steps of the SRTP planning process.



Multiple public participation options were provided during initial public outreach to make it as easy as possible for interested individuals to provide input. The chart below summarizes these participation options, focus, and participants.

ICTC Short Range Transit Plan – Overview of Community Participation Options

Participation Opportunity	Focus	Number of Participants
Stakeholder Interviews Monday, May 2, 2011 1405 North Imperial Avenue, El Centro Several sessions held from 10 a.m. until 5 p.m.	Focus-group format meetings scheduled conveniently throughout the day for various stakeholder groups	15
Bilingual Public Open House Monday, May 23, 2011 County Board of Supervisors 940 Main Street, El Centro 6:00 – 8:00 p.m.	Evening workshop with breakout discussion groups, planned for a comfortable "after work" environment	0*
Bus Stop Workshops Tuesday, May 24, 2011 (see location details below)	The project team stopped by several bus stops within Imperial County to hear perspectives on public transportation directly from riders	
	Calexico *Third Street and Paulin Avenue* *6:00 a.m. to 8:30 a.m.*	122
	Calipatria *Highway 111 and Main Street* *9:15 a.m. to 9:30 a.m.*	5
	Westmorland *Highway 86 and Center Street* *10:00 a.m. to 10:30 a.m.*	13
	Brawley *E Street and Rio Vista Avenue* *11:15 a.m. to 11:45 a.m.*	9
	Imperial Valley College *Bus stop at northeast corner of campus* *12:45 p.m. to 2:45 p.m.*	54
	El Centro *14th Street and State Street* *3:30 p.m. to 5:30 p.m.*	24
TOTAL PARTICIPANTS		242

* See discussion of bilingual public open house attendance below.

2.1.1 Stakeholder Interviews

The purpose of the stakeholder interviews was to understand the perspectives of agencies and organizations with respect to transit service issues and opportunities. Individual and group stakeholder interviews were held on May 2, 2011. A total of 15 stakeholders participated in the stakeholder interview process. Stakeholders included representatives from the following organizations:

- First Transit (Operates Imperial Valley Transit and Calexico Dial-a-Ride)
- Southern California Association of Governments
- Imperial Valley College
- San Diego State University–Calexico Campus
- Imperial County Behavioral Health Services
- El Centro Regional Medical Center
- Pioneers Memorial Health Care District
- Imperial Valley Economic Development Corporation
- El Centro Chamber of Commerce
- Imperial County Air Pollution Control District
- Yuma Metropolitan Planning Organization
- City of El Centro (City Manager)
- Imperial County Transportation Commission/Imperial County Board of Supervisors
- County of Imperial (Assistant Chief Executive Officer)

Discussion questions and key points raised during the stakeholder interviews are provided in Appendix A.

2.1.2 Bilingual Public Open House

The purpose of the bilingual public open house was to present information about the ICTC SRTP and to provide a forum for the general public to give input on transit service issues and opportunities. No participants attended the public open house. Participation at the public open house may have been lacking partly because several stakeholder organizations had already provided input through the stakeholder interview process in early May. A severe wind event that occurred during the workshop may have contributed to lack of attendance as well.

2.1.3 Bus Stop Workshops

The purpose of the bus stop workshops was to hold informal, one-on-one conversations with passengers. Outreach staff held discussions in English and Spanish in a convenient, comfortable environment at various bus stops within the ICTC service area. By being at bus stops, additional opportunities were created to hear from people who use ICTC services but may not be inclined to attend formal outreach events. Appendix B includes discussion questions and key points raised during the bus stop workshops.

2.1.4 Special Considerations for Community Outreach

To address Title VI requirements, environmental justice issues, and the need for Spanish language outreach, special considerations were incorporated into the outreach program (see boxes and below).

Efforts were made to maximize opportunities for public participation in the SRTP process. Public outreach events were held at locations within the service area that are accessible to low-income and minority populations. These locations are also located near public transportation. In addition, the project team held mobile workshops at several bus stops within Imperial County to hear perspectives on public transportation in the county directly from riders:

Calexico
Third Street & Paulin Avenue

Calipatria
Highway 111 and Main Street

Westmorland
Highway 86 and Center Street

Brawley
E Street & Rio Vista Avenue

Imperial Valley College
The bus stop on the northeast corner of campus

El Centro
14th Street & State Street

Spanish-speaking facilitators were present at outreach events to ensure effective communication with Spanish speakers. Outreach materials were also available in both English and Spanish. In addition, a Spanish-speaking project contact person at ICTC was available for Spanish speakers:

Cristi Lerma
760-592-4494
cristilerma@imperialctc.org

Compliance with Title VI of the Civil Rights Act of 1964

Title VI of the Civil Rights Act of 1964 states, "No person … shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." Amended by the Civil Rights Restoration Act of 1987, the prohibition against discrimination was made to include all activities by recipients of federal funding, not just those activities that are directly supported by federal funds.

Executive Order 12898

EO 12898 (59 FR 7629), entitled, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," was signed by President Clinton in 1994. The executive order requires that Federal agencies identify and address, when appropriate, "…disproportionately high and adverse health or environmental effects of its projects, policies, and activities on minority populations and low-income populations…." Section 2-2 requires that Federal agencies perform their actions and programs in a manner that neither excludes minority and low-income populations from relevant participation in the action or program nor denies those groups the benefits of the action.

Spanish Language Outreach

Given the high percentage of Spanish-speaking stakeholders within the ICTC service area, outreach efforts were conducted in Spanish as needed.

2.2 Major Discussion Themes

During both the stakeholder interviews as well as during the other public outreach activities, the study team developed discussion question outlines (see Appendices) as reminders to address certain key topics with the public and thus be certain that all of the major topic areas were considered by the participant. These topics ranged from services available to vehicles to operator courtesy, et cetera. Nonetheless, the following major discussion themes consistently emerged during the initial public outreach activities. These major discussion themes are not listed in any order of priority or importance:

Overall satisfaction with service

Desire for Sunday service and/or more Saturday service

Interest in additional "direct" service

More frequent service and longer hours

Additional bus stops

Improving service for students

Increasing passenger comfort at bus stops

Need for additional communication and education

Improving access to medical and social service facilities

Additional accommodations for passengers

Alternative transportation options

Opportunities for improved coordination

Key points raised in association with each of these major discussion themes are provided below. For a comprehensive understanding of the depth and richness of input, this summary should be reviewed in concert with detailed input from initial public outreach activities presented in Appendices A and B.

Overall satisfaction with service

Several participants mentioned that ICTC service is quite good in light of budget constraints. Most passengers are happy with ICTC service and route coverage, although some passengers would like to see more frequent service (i.e., buses running more often), Saturday and Sunday service, and/or more timely service. Some passengers mentioned that the fare is reasonable and affordable, and that drivers are helpful and friendly.

Desire for Sunday service and/or more Saturday service

Many riders would like Sunday service established and/or the addition of more Saturday service to commute to work, to shop and run errands, and to visit family.

Interest in additional "direct" service

Passengers are generally happy with service, but some passengers indicated that certain routes take a long time because they circulate within a given community before making the trip to other communities along the route. Many passengers requested additional weekday and Saturday direct service to address this issue. Additional direct routes that were requested include: Calexico–El Centro, Calexico–Brawley, Calexico–Imperial Valley College, and El Centro–Imperial Valley College.

More frequent service and longer hours

Passengers overwhelmingly commented that they would like to see more frequent service (i.e., buses running more often). Several people noted that a one-1-hour wait between buses seems very long. Others mentioned that buses are often very crowded and that they would like to see more frequent service to alleviate crowding. Some passengers would like earlier service start times and later service end times, particularly during the summer when passengers would like to take advantage of cooler early morning and evening temperatures.

Additional bus stops

Some passengers indicated they would like to see additional bus stops established. Several passengers would like a stop at the Brawley Walmart. Some passengers would like another stop at the Imperial Valley Mall (on the opposite side from the existing stop).

Improving service for students

Many Imperial Valley College (IVC) students take the bus to and from campus. Most IVC students indicated they only use the bus on weekdays. For the most part, students are happy with the service. Suggestions for improvement included the following:

- Additional direct buses on Calexico–IVC route, particularly in the morning
    - Many students mentioned that the bus to IVC from Calexico is often full and they have to wait for a later bus, which makes them late to class.
- IVC and ICTC should coordinate schedules, particularly so that students don't have to wait an hour for the next bus after getting out of class.
- Focus on getting morning buses to run on time. (Students are negatively affected by buses running behind schedule because it makes them late for class.)

Stakeholders also indicated that ICTC might consider improvements to better serve San Diego State University (SDSU) students. Suggestions included establishing a bus stop at the SDSU Calexico campus and the SDSU Brawley location, as well as establishing service between SDSU Calexico and IVC to support the new coordinated 4-year program between the colleges. For a variety of reasons – including access to automobiles and other socio-economic considerations – prior attempts at such services have not been successful.

Increasing passenger comfort at bus stops

Many passengers would like improvements made to bus stops to make them more comfortable. These improvements included establishing shade (which is particularly important during the summer when temperatures are elevated), installing water fountains, installing benches (which is particularly important for the elderly and disabled when wait times can be up to 1 hour), and cleaning and maintaining the bus stops.

Need for additional communication and education

Several stakeholders and passengers mentioned that they didn't quite understand how the transportation system functions. For example, some participants did not understand how the dial-a-ride service functions and how to assess one's eligibility for accessing dial-a-ride service. Participants also would like to see schedules, routes, and fare information posted at bus stops.

Some stakeholders liked the idea of developing a "frequently asked questions" (FAQs) sheet that would help people understand how to use the system. Examples of questions that could be included were mentioned by participants, such as "how do I know if I qualify for disabled service?" "how do I know if I qualify for a senior discount?" and "how can I get to El Centro Regional Medical Center from Calexico?" Participants suggested that the FAQs sheet include a contact phone number and that it be posted at various public locations with high numbers of public transportation users, such as medical facilities, educational institutions, and social service offices. Representatives of medical facilities noted that their staff constantly receives questions on service options and that a FAQs sheet tailored for patients would be very helpful.

Improving access to medical and social service facilities

Some stakeholders mentioned that medical and social service clients often indicate they cannot arrive at appointments due to a lack of public transportation service (even though such early morning service exists). For example, some clients traveling from the northern portion of ICTC's service area believe that they are unable to make early morning appointments in Brawley because bus service does not start early enough in the morning, despite the fact that such early morning service is available. Nonetheless, health facility representatives acknowledged that clients may more likely not be aware of all of the existing public transportation services available to them and cited an associated need for education and communication regarding these services.

Some stakeholders also mentioned that for elderly and/or disabled passengers, bus stops that are a few blocks away from their destination may not be adequate. For example, the need for a stop directly in front of the Social Security office was raised. While the existing stop is located within close proximity to the office, it should be kept in mind that mobility impairments of such severity would likely qualify such clients for the demand responsive service.

Some participants also identified the need for improved transportation services for patients discharged from health facilities. These stakeholders indicated that discharged patients often have to wait several hours to be picked up by family members who cannot get away from work early. Stakeholders representing medical facilities expressed interest in exploring cost-sharing with ICTC on a specialized on-call shuttle to transport medical patients. Other stakeholders suggested that improvements to allow same-day scheduling of transportation to/from medical facilities would address this issue.

Additional accommodations for passengers

Some participants mentioned that passengers in wheelchairs occasionally cannot board the bus because the designated wheelchair spots are already occupied. Likewise, some passengers identified the need for additional bike racks on buses because once the two bike racks on each bus are full, cyclists must wait for the next bus.

Alternative transportation options

Some stakeholders suggested that ICTC explore alternative transportation options, such as a carpool program with Yuma to support commuters and a vanpool program to support commute trips to/from large employers.

Opportunities for improved coordination

Some stakeholders suggested that ICTC continue to work closely with local planning departments to ensure that public transportation is considered prior to approving new development. Additional coordination with the Yuma Metropolitan Planning Organization was also encouraged.

3.0 EXISTING CONDITIONS

Bus service in Imperial County began in 1989, with Imperial County Transit operating three peak vehicles on five weekday-only routes in the Imperial Valley. Since that time, the service has grown to 19 peak vehicles (14 operating on fixed routes) and ridership has grown from an average of 3,000 to 48,000 passengers per month. The fixed route portion of the service is now operated under the name Imperial Valley Transit (IV Transit or IVT) while the demand response portions are operated as IVT Access (Formerly AIM Transit), Med-Express, and five local Dial-a-Ride services.

Both fixed route and demand response bus service is offered in Imperial County, funded and provided by a variety of different organizations, both public and private. This chapter focuses on those services overseen or administered by ICTC, the Imperial County Transportation Commission, which includes all public transit service provided in the county. Additionally, privately funded and operated, for-profit transit service is provided by Calexico Transit System (local circulator routes within Calexico) and Numero Uno Shuttle (fixed route service connecting the US-Mexican border in Calexico with El Centro).

Public transit service in Imperial County includes the following:

- Fixed route service, including intercity routes connecting most Imperial Valley towns, is operated as Imperial Valley Transit by First Transit, Inc.
- Urban circulator services, currently comprising the Blue and Green Lines in El Centro, which have timed connections with the intercity routes. These routes are also operated by First Transit, Inc. as a part of Imperial Valley Transit, but are specially branded.
- ADA complementary paratransit service, branded IVT Access (formerly AIM Transit), is operated throughout a service area covering most of the Imperial Valley, and is also operated by First Transit, Inc.
- Limited paratransit service, branded Med-Express, is operated between designated locations in Brawley, El Centro and Calexico and medical facilities in San Diego County. This service is operated by ARC – Imperial Valley.
- Dial-a-Ride service provides point-to-point transit service in five defined areas, including El Centro, Calexico, Brawley, Imperial and the West Shores area (west of the Salton Sea). Service in Calexico is operated by First Transit, Inc., service in El Centro, Imperial, and the West Shores is operated by ARC – Imperial Valley, and service in Brawley is operated by Sunrise Driving Services. Service in Brawley and the West Shores area is available to the general public; in El Centro, Calexico and Imperial it is limited to seniors and disabled persons.

This document outlines the existing public transit service in Imperial County in greater detail. It includes a demographic overview of the service area including past, present and projected population socioeconomic profile, and key trip generators. Following the demographic overview

is an overview of general operating and financial data for both the fixed route and demand response services.

3.1 Service Area Profile

This section describes the area served by Imperial County's public fixed route and demand-responsive transit services. It includes a socioeconomic and demographic overview, as well as an overview of key employers and trip generators throughout the county. Imperial County encompasses nearly 4,500 square miles in the southeastern corner of the State of California, bounded by Baja California, Mexico to the south; La Paz and Yuma Counties, Arizona to the east and southeast, Riverside County, California to the north, and San Diego County, California to the west. The county is generally characterized by sand dunes and desert in the east and mountains in the west, with a valley (the Imperial Valley) in between. A majority of the population resides in the southern portion of the valley, while inland, saltwater lake, the Salton Sea, occupies a majority of the northern portion of the valley. The agricultural portion of the Imperial Valley is referred to as the "irrigated district".

This section uses data from the 2000 and 2010 US Censuses, as well as the 2005-9 American Community Survey (ACS). It is important to note that due to changes in Census format between 2000 and 2010, socioeconomic data must be obtained from the ACS, as it is no longer available in the decennial census. Additionally, the 2000 US Census was used for disability status, as that is the most recent data available at the city/town level.

3.1.1 Population and Growth

As of the 2010 US Census, the total population of Imperial County was 174,528, an increase of 32,167 (23 percent) from the 2000 Census population of 142,361. The largest cities were El Centro, with 42,598 residents, Calexico with 38,572 residents and Brawley with 24,953. The fastest-growing city in Imperial County was Imperial, which doubled in population from 2000 to 2010, growing from 7,418 to 14,758 residents over the course of one decade. Calexico was the next fastest-growing city in the county, increasing in population by 43 percent over the decade. The smaller cities Calipatria, Holtville and Westmorland showed much more modest growth, ranging from four to six percent each. Table 3-1 shows growth from 2000 to 2010 for Imperial County and each of the seven incorporated cities within the county.

Table 3-1: Imperial County and Municipal Growth, 2000-2010

City	2000 Census	Percent Change	2010 Census
El Centro	37,801	13%	42,598
Calexico	27,042	43%	38,572
Brawley	22,096	13%	24,953
Imperial	7,418	99%	14,758
Calipatria	7,289	6%	7,705
Holtville	5,612	6%	5,939
Westmorland	2,131	4%	2,225
Imperial County	**142,361**	**23%**	**174,528**

Source: 2000 and 2010 US Censuses

Over the period spanning 2010 to 2050, the State of California is projected to grow by 52.1 percent, reaching a population of nearly 60 million people. Imperial County is projected to grow at a similar rate, increasing by 51.1 percent between 2010 and 2050. The senior population of Imperial County, meanwhile, is expected to grow by 290.2 percent, dramatically increasing the need for demand-responsive human services transportation over the next several decades. Projections used in this chapter are based on 2000 US Census results.

It should be noted that California State projections for 2010 were slightly higher than 2010 Census data indicated, overstating the population of the State of California by 1,881,220 (projections were for 39,135,176 residents in 2010, where the Census recorded 37,253,956), or approximately five percent. The population for Imperial County was projected to be 189,675 in 2010, but was reported as 174,528 in the 2010 US Census, falling 15,147 short (eight percent). Table 3-2 shows population projections through 2050 based on the 2000 US Census.

Table 3-2: Population Projections through 2050

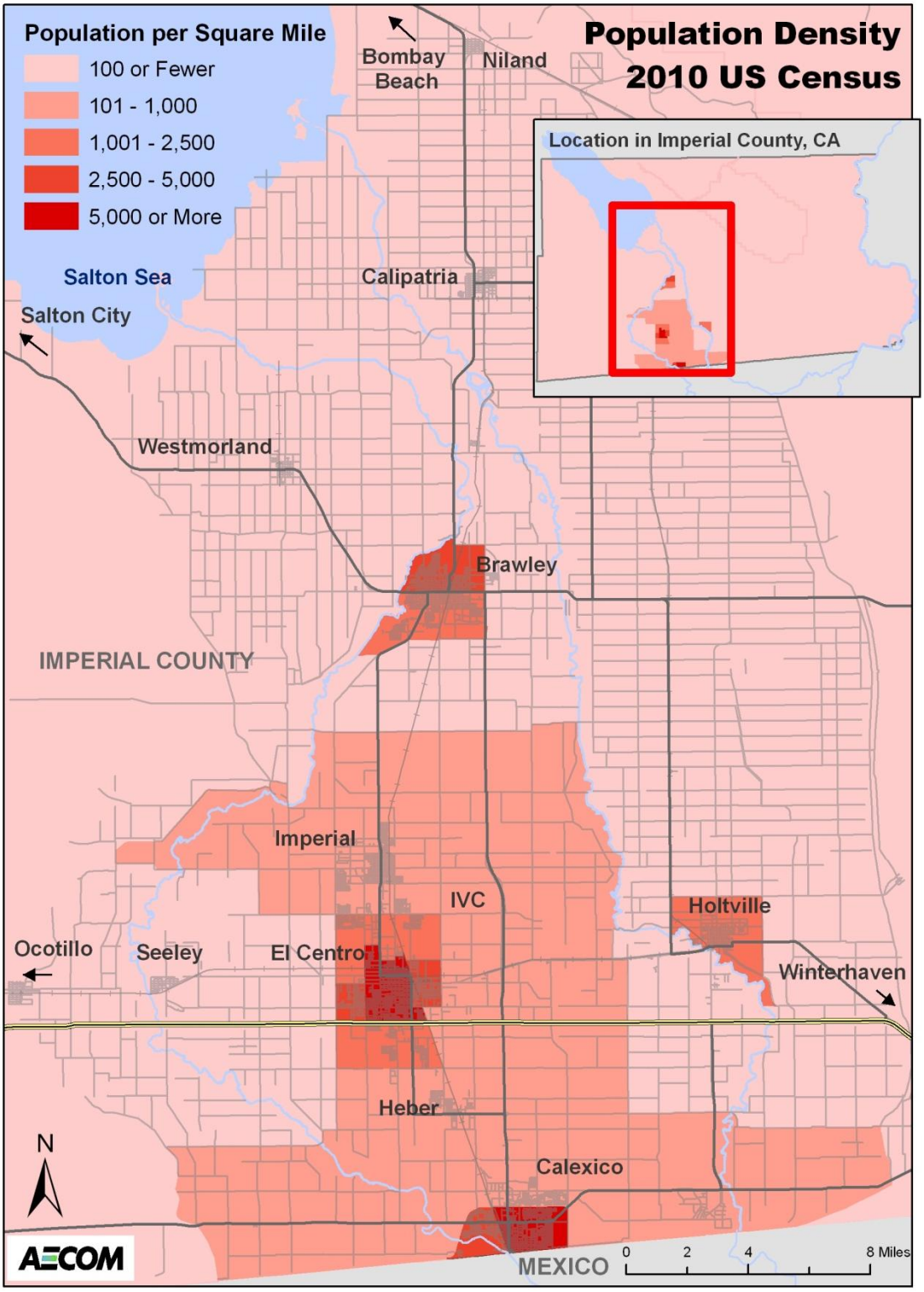
Group	2010 Projection	Percent Growth	2020 Projection	Percent Growth	2030 Projection	Percent Growth	2040 Projection	Percent Growth	2050 Projection
California	39,135,176	12.8%	44,135,923	11.6%	49,240,891	10.2%	54,266,115	9.7%	59,507,876
Imperial County	189,675	26.1%	239,149	18.6%	283,693	18.1%	334,951	15.8%	387,763
Imperial Co. Senior Population	19,841	50.3%	29,819	53.0%	45,622	37.5%	62,747	23.4%	77,421

Source: California Department of Finance Population Projections

Figures 3-1 and 3-2 show population density by census tract (2010) and population growth per square mile by census tract (2000-2010), respectively. Both population and population growth are shown per square mile as census tracts in Imperial County vary greatly in size, allowing for comparison between different areas of the county. Population is densest in the urban centers of El Centro, Calexico, and Brawley, followed by Holtville, Imperial, and the southern portion of the

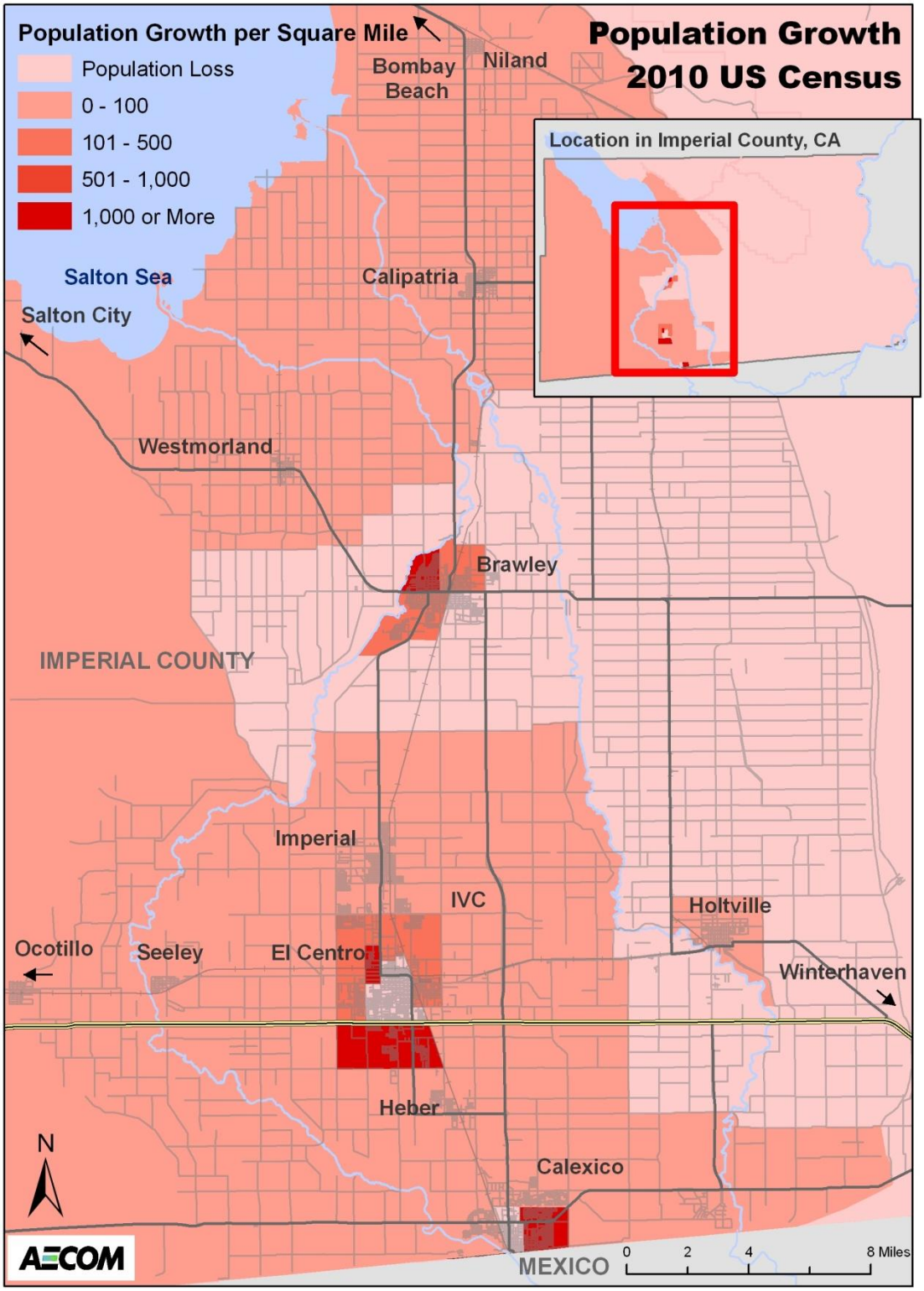
irrigated area (primarily between and surrounding El Centro and Calexico). The remainder of the county is very low density, with 100 or fewer residents per square mile. Population growth has been most acute in the areas surrounding the core of El Centro, as well as in eastern Calexico and northern and western Brawley. Population has declined in central El Centro, central Calexico, southeastern Brawley, and much of the eastern half of the county (except for Holtville).

Figure 3-1: 2010 Population Density by Census Tract



Source: 2010 US Census

Figure 3-2: 2000-2010 Population Growth by Census Tract



Sources: 2000 and 2010 US Censuses

3.2 Employment

Employment in Imperial County is dominated by government, agriculture and food processing, and the service sector (primarily retail). The largest employers include the County of Imperial (~1,800 employees), National Beef, Brawley (~1,300 employees), and the Calipatria and Centinela State Prisons (~1,200 employees each). Major employers in each sector include the following:

- **Government** employers including the County of Imperial and local cities and towns, the Imperial County Office of Education and school districts (Brawley, Calexico, Calipatria, El Centro, Heber, Holtville, Imperial, Seeley, Westmorland, Winterhaven and Community Schools), the State Prison System (including the Calipatria and Centinela State Prisons) the El Centro Naval Air Facility and the US Department of Homeland Security.

- **Colleges and Universities** including Imperial Valley College (Imperial), San Diego State University – Imperial Valley (Calexico), and the American Beauty Academy (Brawley).

- **Agriculture and Food Processing** employers including National Beef in Brawley, the Imperial Irrigation District, E-Z Labor Harvesting Inc. in Brawley, Bullfrog Dairy near Imperial, River Ranch in El Centro, and Spreckles Sugar Co. and Sahara Packing Co. in Brawley, as well as other agricultural businesses such as farms throughout the valley.

- **Retail and Service** employers including Target (El Centro), Walmart (Brawley, Calexico and El Centro), Costco (El Centro), Dillard's (El Centro), Home Depot (El Centro), Lowe's (El Centro), Food 4 Less (Calexico and El Centro), the Imperial Valley Mall (El Centro), Kennedy's Market (Heber), Kmart (El Centro), Mission Retail Center (El Centro), Valley Plaza Shopping Center (El Centro), Vons (Brawley and El Centro) and the Quechan and Paradise casinos in Winterhaven.

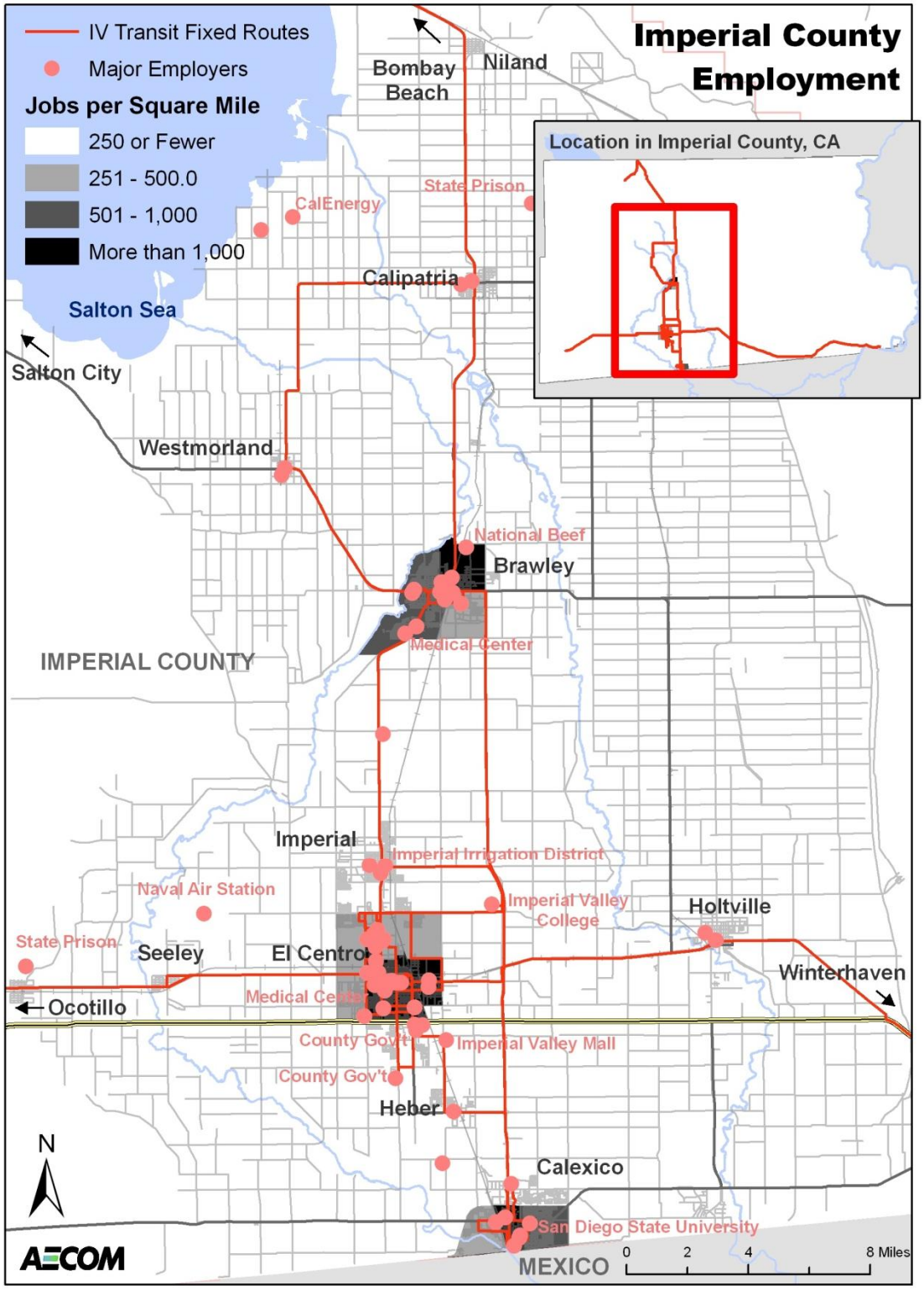
- **Medical** employers including the El Centro Regional Medical Center, Pioneers Health Center in Brawley, Clinicas de Salud del Pueblo (headquartered in Brawley), the Brawley Senior Center, Day Out in El Centro, the El Centro Community Center, the Westmorland Senior Center, and the Quechan Senior Center in Winterhaven.

- **Industrial** employers such as U.S. Gypsum Company in Plaster City, CalEnergy Operating Company in Calipatria, Guy Evans, Inc. in Imperial and Ormat in Heber.

Anecdotally, there are a couple factors regarding employers which are important to consider when planning or evaluating transit service. First, two of the largest employers in Imperial County are the Calipatria and Centinela State Prisons – prison guards at both facilities are required to have their own automobiles for transportation to work, particularly in case of an emergency at either prison. Second, many workers commute from homes in Mexicali, cross the border into Calexico and access jobs in Imperial County from there. This increases the demand for transportation from Calexico to other parts of the county.

Figure 3-3 shows employment concentration within the county (from the 2009 American Community Survey) as well as the location of the largest employers. Generally, jobs are concentrated in the cities of El Centro, Calexico and Brawley; however, many major employers are located outside these urban centers, including the El Centro Naval Air Station, the Calipatria and Centinela State Prisons, the Imperial Irrigation District, the Imperial Valley College and CalEnergy.

Figure 3-3: Employment Concentration and Major Employers



Sources: 2009 American Community Survey and ICTC

Another factor to consider regarding employment is commuting patterns. Data is available from the 2000 US Census which shows worker flows between counties within the US. This data does not show worker flow across the US-Mexican border, so it should be viewed with caution regarding Imperial County, where many people are known to commute from the Mexican city of Mexicali to jobs in Imperial County each day. A majority of workers in Imperial County live in Imperial County and a majority of residents of Imperial County work in Imperial County. Large numbers of workers also commute between Imperial County and Yuma County, AZ followed by San Diego County, CA and Riverside County, CA. Table 3-3 outlines the top 10 counties where Imperial County residents work and the top 10 counties from which workers in Imperial County come.

Table 3-3: Imperial County Commuting Patterns

People Commuting FROM Imperial County TO:		People Commuting TO Imperial County FROM:	
Imperial County, CA	40,181	Imperial County, CA	40,181
Yuma County, AZ	796	Yuma County, AZ	951
Riverside County, CA	690	San Diego County, CA	793
San Diego County, CA	418	Riverside County, CA	424
Monterey County, CA	139	Los Angeles County, CA	406
Los Angeles County, CA	68	San Bernardino County, CA	179
San Bernardino County, CA	59	Orange County, CA	157
Kern County, CA	52	Island County, WA	102
Santa Barbara County, CA	30	Maricopa County, AZ	54
Orange County, CA	29	Luna County, NM	49

3.3 Transit Market

Table 3-4 outlines those characteristics which are generally considered to have the greatest impact on transit demand, including youth and senior populations, zero-car households, median income and population below the poverty level, and unemployment. The largest cities are El Centro and Calexico with nearly 40,000 residents, followed by Brawley and Imperial. In each of the three largest cities, El Centro, Calexico and Brawley, approximately one in three residents is under the age of 18, and one in ten is over the age of 65. Zero-car households comprise approximately 12 percent of the population (almost 15 percent in Brawley, median incomes are in the mid-30,000 dollar range, and approximately 13 percent of the labor force is unemployed. Poverty rates are lowest in El Centro with 21 percent of the population living below the poverty level, almost 23 percent in Calexico, and highest in Brawley with approximately one in four residents living below the poverty level.

Overall, Imperial has the largest proportion of youth under age 18, comprising 35 percent of the population, as well as the highest median income, exceeding $53,000 per year. Westmorland has the largest proportion of seniors (but the smallest population), and Brawley has the greatest proportion of zero-car households. Holtville has both the largest proportion of residents living below the poverty level (nearly 26 percent) as well as the highest unemployment rate, nearing 20 percent.

Table 3-4: 2005-2009 American Community Survey Estimates

City	Total Population	Youth Population	Percent Youth	Senior Population	Percent Seniors	Percent Zero-Car Households	Median Income (2009)	Percent of Population Below Poverty Level	Percent of Labor Force Unemployed
El Centro	39,902	13,298	33.3%	4,129	10.3%	12.1%	$38,312	21.0%	12.8%
Calexico	37,054	12,229	33.0%	3,689	10.0%	12.2%	$33,717	22.6%	13.1%
Brawley	22,438	7,332	32.7%	2,434	10.8%	14.6%	$35,260	25.0%	13.0%
Imperial	12,162	4,294	35.3%	613	5.0%	3.7%	$53,750	11.2%	10.7%
Calipatria	7,623	1,332	17.5%	504	6.6%	8.0%	$44,400	19.5%	8.2%
Holtville	5,373	1,523	28.3%	684	12.7%	8.8%	$36,071	25.9%	19.3%
Westmorland	1,620	524	32.3%	246	15.2%	12.9%	$28,397	22.3%	12.3%
Imperial County	**160,034**	**49,299**	**30.8%**	**16,656**	**10.4%**	**10.8%**	**$37,595**	**21.2%**	**12.5%**

Source: 2005-2009 American Community Survey

Table 3-5 shows the disabled population for residents age five and older for each of the cities in Imperial County. On average, 20.4 percent of the population of Imperial County is disabled: the proportion is highest in El Centro at 20.9 percent, and lowest in Calipatria at 17.7 percent.

Table 3-5: Disabled Population by City

City	Disabled Population (2000) (Age 5+)
El Centro	20.9%
Calexico	19.2%
Brawley	20.0%
Imperial	18.9%
Calipatria	17.7%
Holtville	20.8%
Westmorland	19.7%
Imperial County	**20.4%**

Source: 2000 US Census

Table 3-6 compares each of the key attributes determining transit need in Imperial County with California state and US national averages. Overall, the youth population in Imperial County is larger (in proportion to total population) than it is in California or nationally, on average, and the senior population is smaller. Additionally, Imperial County has a larger proportion of zero-car households than either California or the US average, a lower median income (62 percent of California and 73 percent of US averages), a higher proportion of people living below the poverty level, and an unemployment rate that is more than 1.7 times the national average.

Table 3-6: Imperial County vs. California and US Averages

Group	Imperial County	California Average	US Average
Disabled Population (2000)	20.4%	19.2%	19.3%
Youth Population	30.8%	27.3%	24.6%
Senior Population	10.4%	10.6%	12.6%
Percent Zero-Car Households	10.8%	9.5%	8.8%
Median Household Income (2009)	$37,595	$60,392	$51,425
Percent below Poverty Level	21.2%	14.2%	12.4%
Percent Unemployed	12.5%	7.9%	7.2%

Source: 2005-2009 American Community Survey

When considered together, this data can be used to calculate a transit score map. The 'transit score' map is created in order to spatially analyze several transit-oriented demographic and socioeconomic characteristics at the same time. The transit score is a relative measure of how successful a fixed route transit system is expected to be in a particular region. Used in

conjunction with a congruency analysis of major transit generators, the transit score can be used to evaluate existing service as well as to identify areas of potential demand.

Demographic and socioeconomic information is collected from the U.S. Census Bureau for a region divided into smaller geographic units such as tracts, block groups, or blocks. Census tracts were used for this analysis. Transit-oriented variables used for the analysis include:

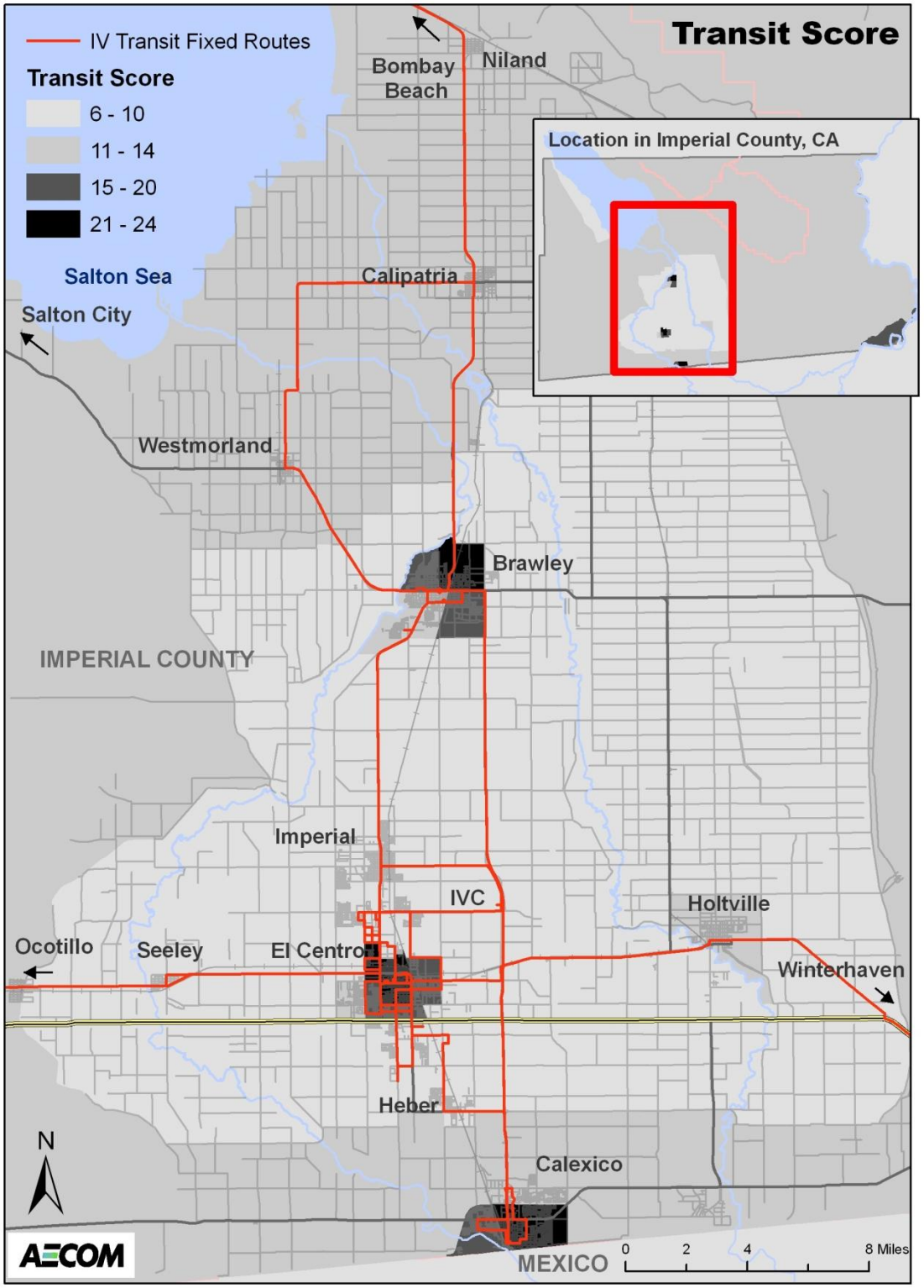
- Population density
- Density of the population under the age of 18
- Density of the population over the age of 65
- Median household income
- Percentage of the population living below the poverty level (considered by the 2009 American Community Survey to be $10,956 for an individual)
- Percentage of zero-car households

Each of these variables has a strong correlation with transit success. Transit is most often successful in areas of high population density and in areas with high youth and senior populations. Transit is also traditionally successful in areas with low income households, high percentages of people living below the poverty level, and high percentages of households without vehicles available. Data regarding disability status was unavailable at the tract level from the 2009 American Community Survey at the time of writing, so this variable was not included.

For a given region, the values for each of these variables are organized by census tract. For each variable, the values are arranged into categories of values using the quantile classification method of GIS analysis. For this analysis, all variables are divided into five classes. All of the values in each category (class) are then given a 'score' between 1 and 4, where 1 is low expectation of success and 4 is high expectation of success. Then, all of the scores are added up for each variable inside a census tract to give a total transit score. Six variables are evaluated, so a score close to 24 means that a census tract has a high expectation for transit success; a score close to 6 means that there is low expectation for transit success. Transit scores are then mapped by geographic unit and quantile classification to show where demographic and socioeconomic variables lend themselves to potential transit success.

Figure 3-4 maps the probability of transit success throughout Imperial County. Transit success is most likely, based on the above factors, in the cities of El Centro, Calexico and Brawley and around Winterhaven.

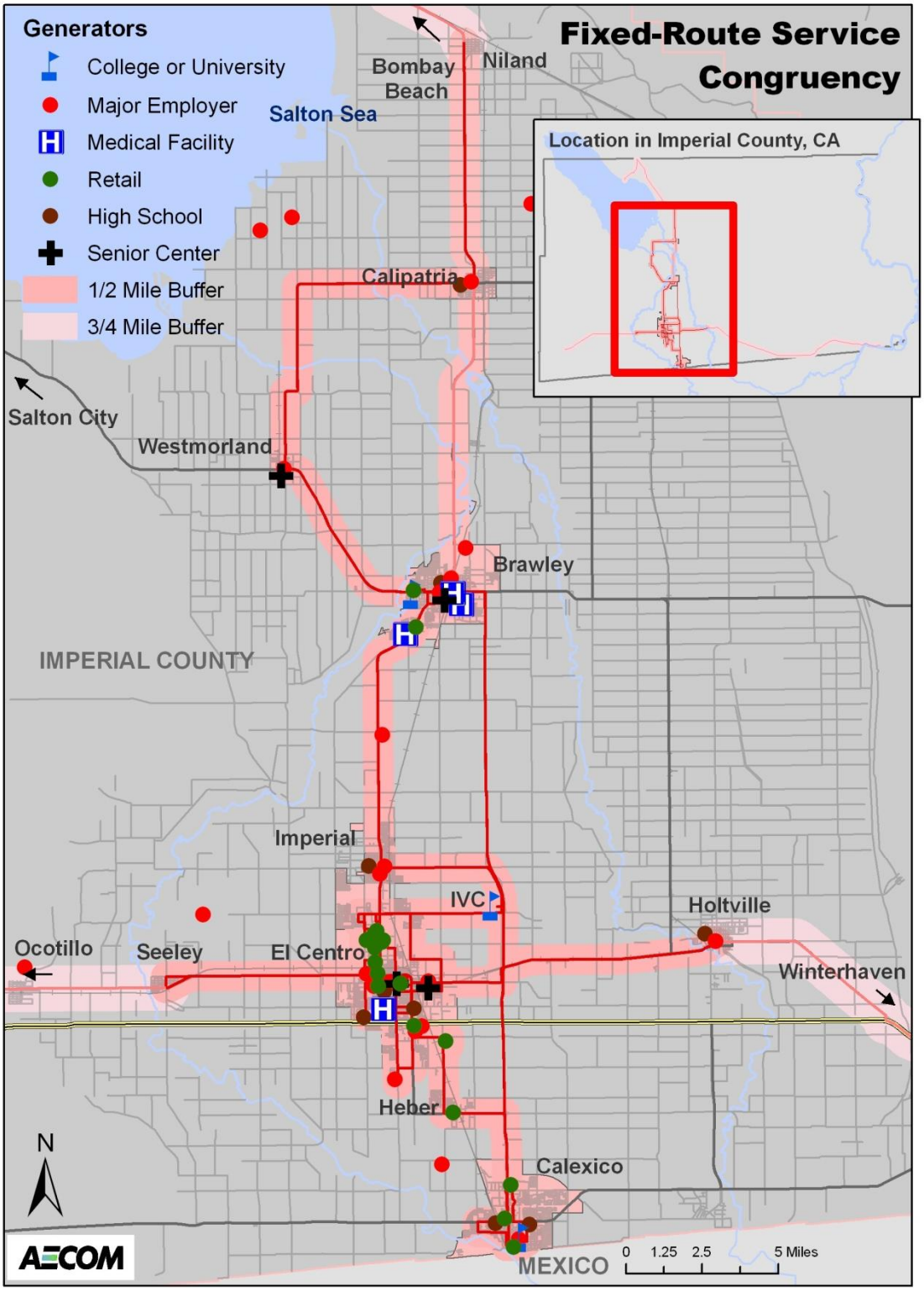
Figure 3-4: Imperial County Transit Success Score Map



Source: 2009 American Community Survey

In addition to transit score, a congruency analysis shows what areas are currently served by transit, and what generators or areas determined to have a high transit need score are not currently served by transit. This map, shown in Figure 3-5, overlays the current fixed routes, including a ¾ mile buffer around each route (the area considered by ICTC to be the "service area", which is also served by AIM Transit/IVT Access), and Dial-a-Ride service areas, as well as the major trip generators in Imperial County. Trip generators include employers, schools/colleges/ universities, business parks, government and social service locations, hospitals and medical centers, parks and tourist attractions, major retail locations and multimodal links. Border crossings are also taken into account as generators, as many people cross into Imperial County from Mexico to access jobs and/or shopping. Most major generators are served, with the exception of some employers, such as the Calipatria and Centinela State Prisons, CalEnergy, and Ormat Technologies (in Heber). The Walmart in Brawley does not currently have its own stop, but would be served by the proposed Gold Line circulator service. Service is available to the front gate of the El Centro Naval Air Station through deviated service on Route 400/450.

Figure 3-5: Imperial County Fixed Route Service Congruency



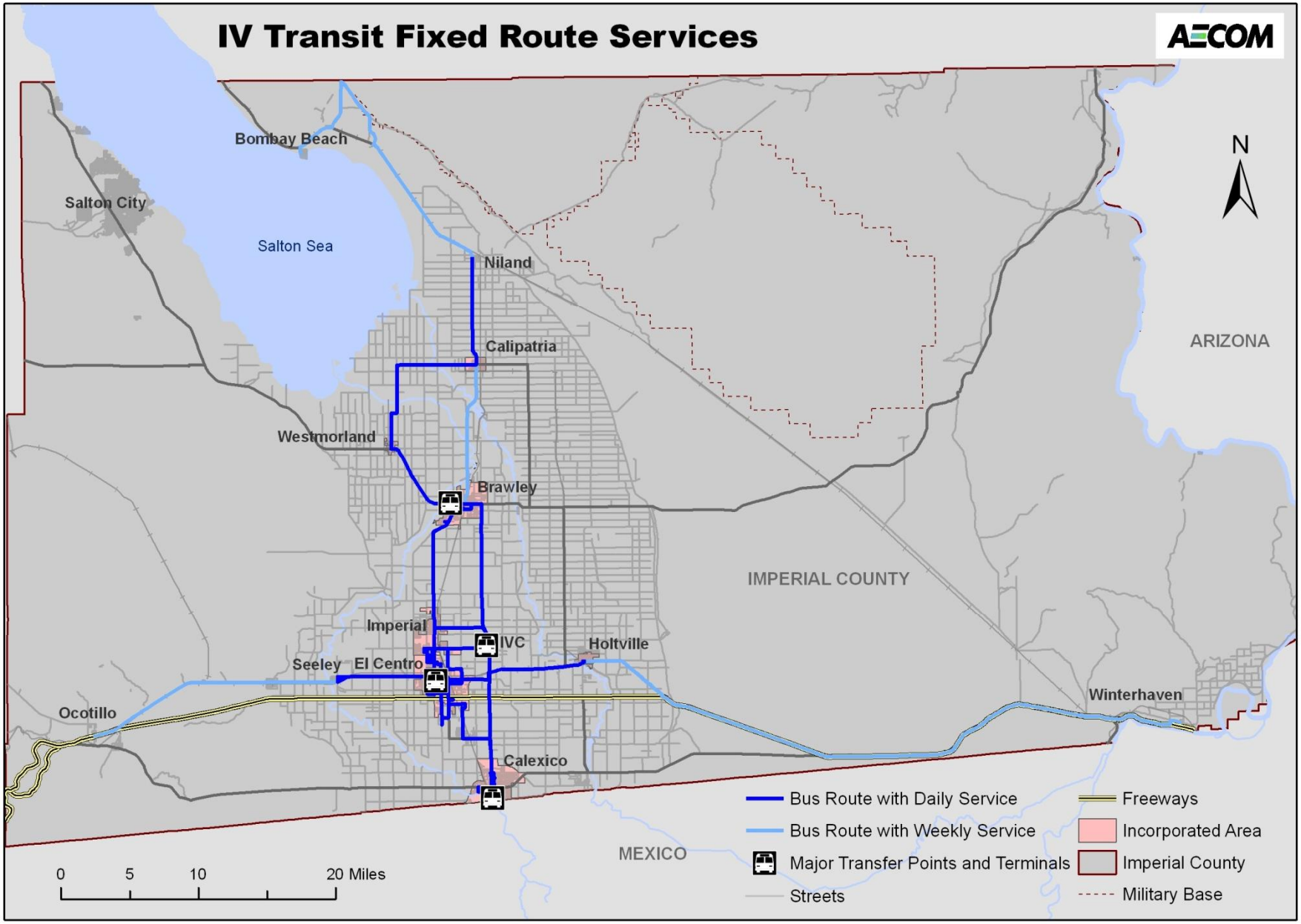
3.4 Transit System Profile

This chapter expands upon the transit services provided throughout Imperial County including operations, ridership, route performance, fare policies, equipment and facilities, organization, financial and capital planning, marketing and other transit operators. Transit service in Imperial County is broken down into three zones, with a different level of service provided within each zone. These zones include: the primary corridor zone, including Calexico, Heber, El Centro, Imperial and Brawley; the secondary service zone, including Holtville, Seeley, Niland, Calipatria and Westmorland; and the remote zone – the remainder of the county.

Both fixed route and demand response services are provided throughout much of the county, providing transportation for the general public, as well as senior and disabled people. Local, circulator, express and deviated fixed route service is operated between points throughout the Imperial Valley under contract for the county by First Transit, Inc., branded as Imperial Valley Transit. Demand responsive service (Dial-a-Ride) is subsidized by ICTC and operated by private services in Brawley, Calexico, El Centro, Imperial and the West Shores area. Both the Brawley and West Shores Dial-a-Ride services are available to the general public, while the others are limited to senior/disabled passengers. ADA complementary paratransit service, branded IVT Access (formerly AIM Transit), is provided throughout the fixed route service area. IVT Access is also available to the general public for an added fee when space allows. Additionally, certain disabled passengers are eligible for Med-Express, which operates four days per week between pickup points in Imperial County and medical facilities in San Diego County.

Figure 3-6 shows fixed route services provided by ICTC throughout Imperial County.

Figure 3-6: Imperial County Transportation Commission Fixed Routes



3.4.1 Fixed Routes

Fixed route service in Imperial County is subsidized and administered by ICTC and provided by Imperial Valley Transit (IVT) under contract with First Transit, Inc. Service is provided on 11 routes throughout three zones: primary corridor zone, secondary service zone and remote zone. This section provides a detailed inventory of routes as well as available data regarding route operation, ridership, revenues, and costs. Data regarding each demand response service follows in the next section.

Existing Routes and Services

As stated above, service is provided in three different zones. In the primary corridor zone, which includes the county's population centers of Brawley, Imperial, El Centro and Calexico, as well as the Imperial Valley College and Heber, service is provided six days per week (Monday through Saturday) at frequencies up to every 70 minutes. Eighty percent of the county's population resides within this zone. In the secondary service zone, which encompasses Holtville, Seeley, Niland, Calipatria and Westmorland, service is operated on weekdays (ending around 7:00 PM) and is limited on Saturdays. In the remote zone, point-deviated "lifeline" transit service is available one day per week to Ocotillo (Tuesday), Winterhaven (Wednesday) and Bombay Beach (Thursday). In the remote zones, service is generally only provided when a request has been made for a pickup. Route deviation up to ¾ of a mile is available in the remote zone.

Table 3-7 outlines each of the fixed route services.

Table 3-7: Fixed Route Services

Route	Service Zone	Function	Towns Served	Days of Service	Hours of Service	Headway	Notes
50/200 El Centro-Niland	Primary Corridor Zone	Main Service	El Centro, Imperial, Brawley, Westmorland, Calipatria, Niland	Weekdays Saturdays	M-F 5:45 AM – 10:45 PM; Sa 6:30 AM – 8:17 PM	M-F 70 min; Sa 180 min (AM), 120 min (PM)	Service to Westmorland, Calipatria and Niland ends by 7:00 PM
100/150 El Centro-Calexico	Primary Corridor Zone	Main Service	El Centro, Heber, Calexico	Weekdays Saturdays	M-F 5:45 AM – 11:23 PM; Sa 6:06 AM – 7:20 PM	M-F 70 min; Sa 180 min (AM), 120 min (PM)	

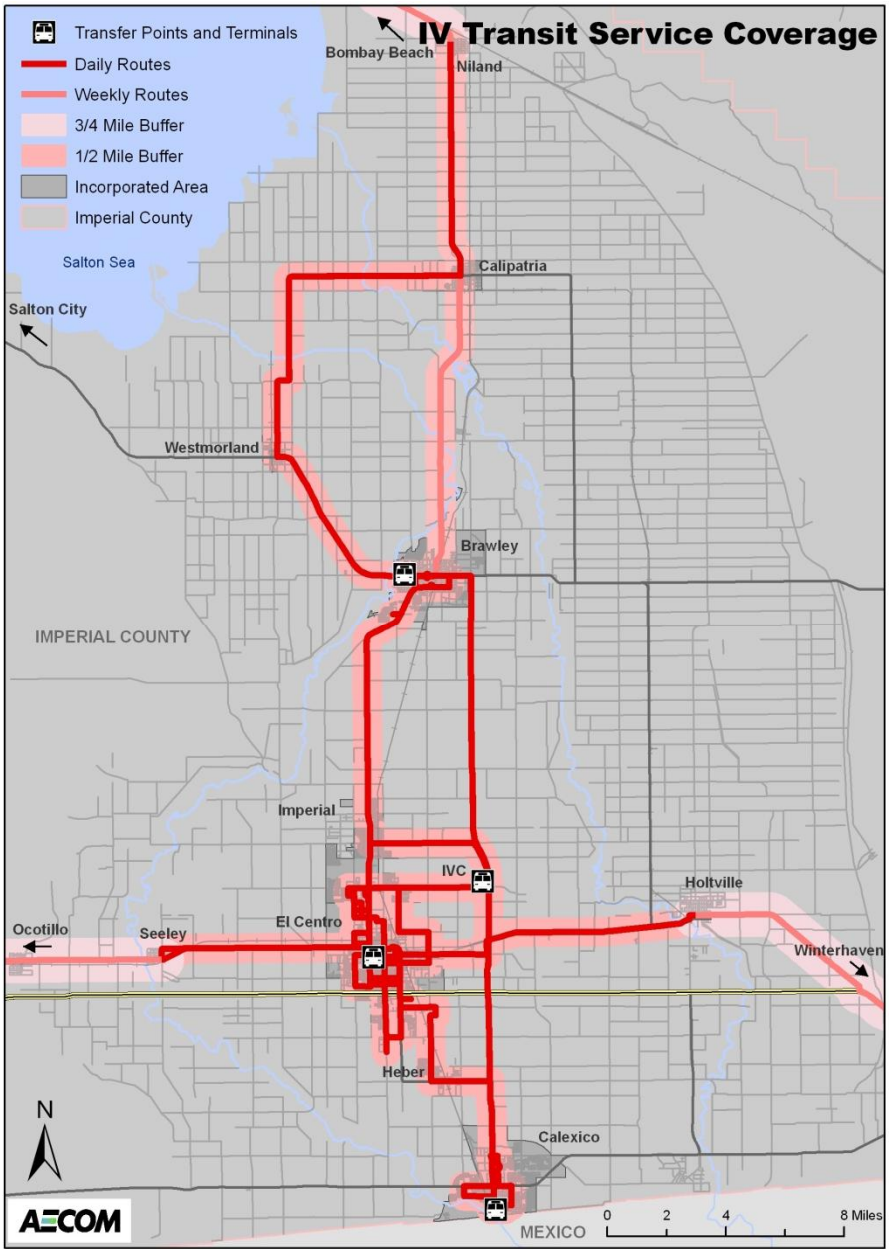
Route	Service Zone	Function	Towns Served	Days of Service	Hours of Service	Headway	Notes
300/350 El Centro-Holtville	Secondary Service Zone	Main Service	El Centro, Imperial, Holtville, Winter Haven	Weekdays Limited Sat	M-F 6:08 AM – 7:40 PM; Sa 7:08 – 8:05 AM and 1:20 – 7:20 PM	M-F 5 round trips, Sa 2 outbound (300) and 3 inbound (350) trips	Service to Winterhaven Wednesday only (on request) Deviation available in Remote Zone only.
400/450 El Centro-Seeley	Secondary Service Zone	Main Service	El Centro, Seeley, Ocotillo (400), Imperial (450)	Weekdays	M-F 6:45 AM – 5:20 PM	4 trips daily (400)/5 trips daily (450)	Service to Ocotillo Tuesday only (on request). Deviation available in Remote Zone only.
500/550 Brawley-Bombay Beach	Remote Zone	Lifeline Service	Bombay Beach, Bashford Spa, Imperial Spa, Fountain of Youth Spa, Lark Spa, Niland, Calipatria, Brawley	Thursdays	9:10 – 10:25 AM; 4:28 – 5:45 PM	1 AM trip (inbound), 1 PM trip (outbound)	Service to Remote Zone communities available Thursday only (on request). Deviation available in Remote Zone only.
600/650 Calexico-Brawley	Primary Corridor Zone	Direct Service (Express)	Calexico Brawley	Weekdays	6:30 – 8:30 AM; 3:50 – 5:50 PM	2 trips AM each direction, 2 trips PM each direction	Additional fare required.
800 Brawley – El Centro	Primary Corridor Zone	FAST (Express)	Brawley El Centro	Weekdays	6:30 AM – 7:30 AM	1 trip inbound	Additional fare required.
750 Blue Line (Westbound/ Counterclockwise)	Primary Corridor Zone	El Centro Circulator	El Centro	Weekdays	6:00 AM – 6:38 PM	70 min	
850 Green Line (Eastbound)	Primary Corridor Zone	El Centro Circulator	El Centro	Weekdays	6:00 AM – 6:38 PM	70 min	
IVC-Niland	Primary Corridor Zone/ Secondary Service Zone	IVC Express	Niland Calipatria Westmorland Brawley Imperial	School Days	6:19 – 9:50 AM; 2:00 – 5:11 PM	2 inbound AM and 2 outbound PM trips	Discounted fare for students.
IVC-Calexico	Primary Corridor Zone	IVC Express	Calexico Imperial	School Days	6:28 – 9:43 AM; 12:30 – 4:21 PM	3 inbound AM and 3 outbound PM trips	Discounted fare for students.

Source: IV Transit Public Timetables

Route Maps, Descriptions, and Ridership by Trip

Imperial Valley Transit operates 11 fixed routes. These routes roughly form a north-south axis along California 86 and California 111 corridors from Calexico to Brawley, continuing along the California 111 corridor to Niland (Bombay Beach on Thursdays), and an east-west axis along the Interstate 8 and Imperial County S80/Evan Hewes Highway corridors from Seeley to Holtville, extending to Ocotillo on Tuesdays and Winterhaven on Wednesdays. Figure 3-7 shows fixed route service coverage for IV Transit. Each individual route is described in further detail following.

Figure 3-7: IV Transit Fixed Route Service Coverage



The coverage map shows a ½ mile catchment area (buffer) for regular fixed routes, representing the distance passengers are assumed to walk to a bus route. For lifeline routes (i.e., those operating once per week), a catchment area of ¾ mile is shown, representing the area in which deviations can be requested. Express routes do not show a catchment area buffer on segments where closed-door operation is in effect (e.g., along California 111).

Route 50/200 El Centro-Niland

Route 50/200 connects El Centro (14th Street and State Street, where transfers are available to other routes) and Niland via Imperial Valley College, Imperial, Brawley, Westmorland and Calipatria. More trips are operated between El Centro and Brawley, within the Primary Corridor Zone, than between Brawley and Niland, within the Secondary Service Zone. Table 3-8 below shows operating statistics for Route 50/200. Ridership is significantly greater in the southbound direction than the northbound direction on this route. Travel times are also longer in the southbound direction. A map of Route 50/200 follows in Figure 3-8.

Table 3-8: Route 50/200 Operating Statistics

	Northbound (200)	Southbound (50)
Route Length (Miles)	52	52
Scheduled Running Time	95 min	112 min
Weekday Headway	70 min	70 min
Annual Ridership	64,960	113,846

Sources: IV Transit data for second half of FY 2009-10; IV Transit Rider's Guide

Figure 3-8: Route 50/200

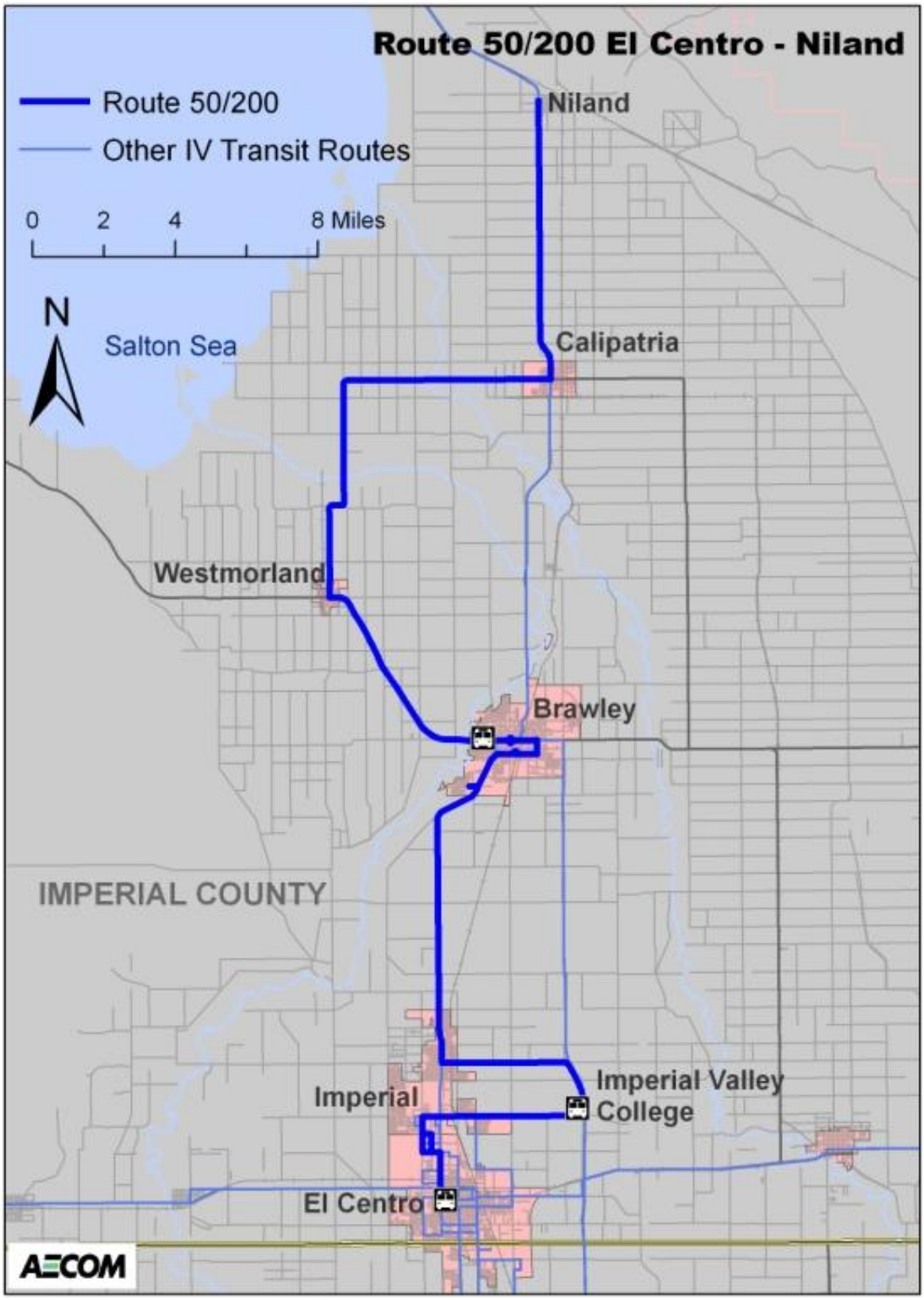
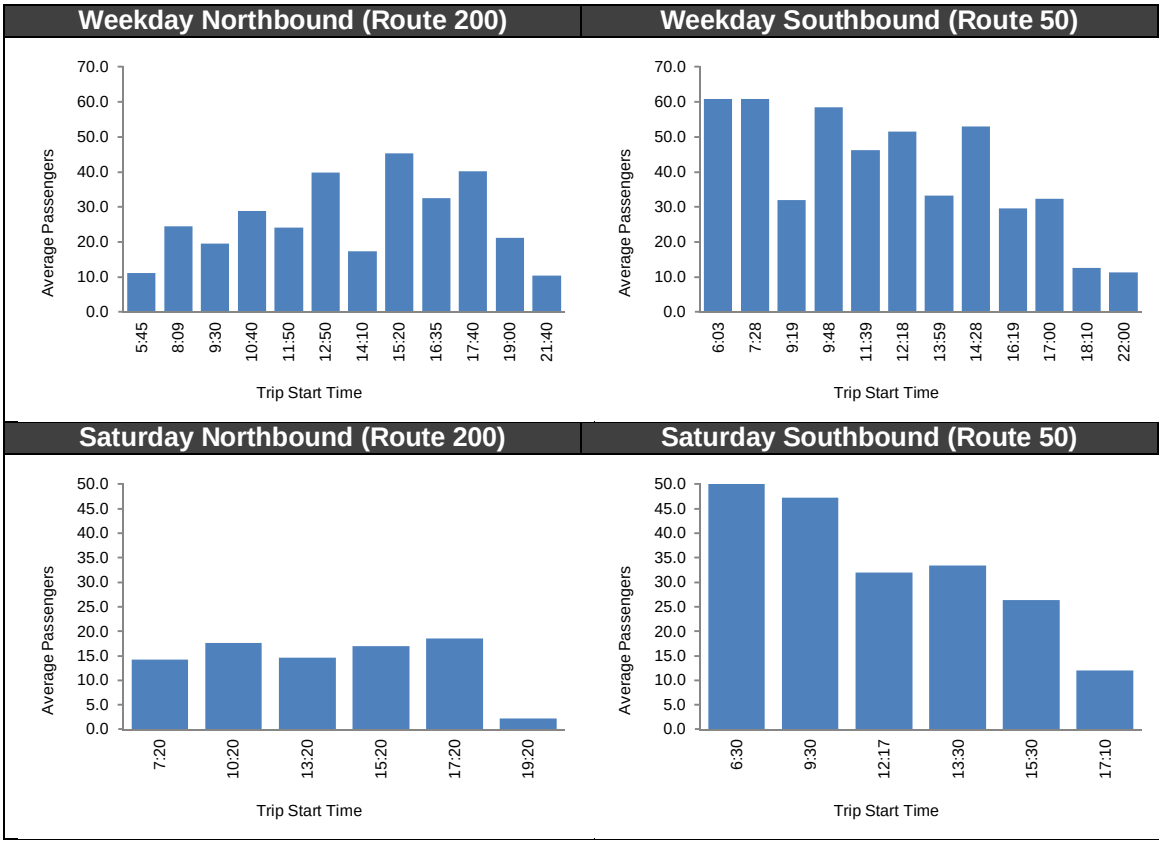


Figure 3-9 shows ridership by trip for Route 50/200. Overall, ridership is significantly greater in the southbound direction (Route 50) than northbound. Additionally, southbound ridership peaks in the morning, with as many as 60 passengers on some trips, while northbound ridership peaks in the afternoon.

Figure 3-9: Route 50/200 Ridership by Trip



Source: October 2009 IV Transit Ridership Data

Route 100/150 El Centro-Calexico

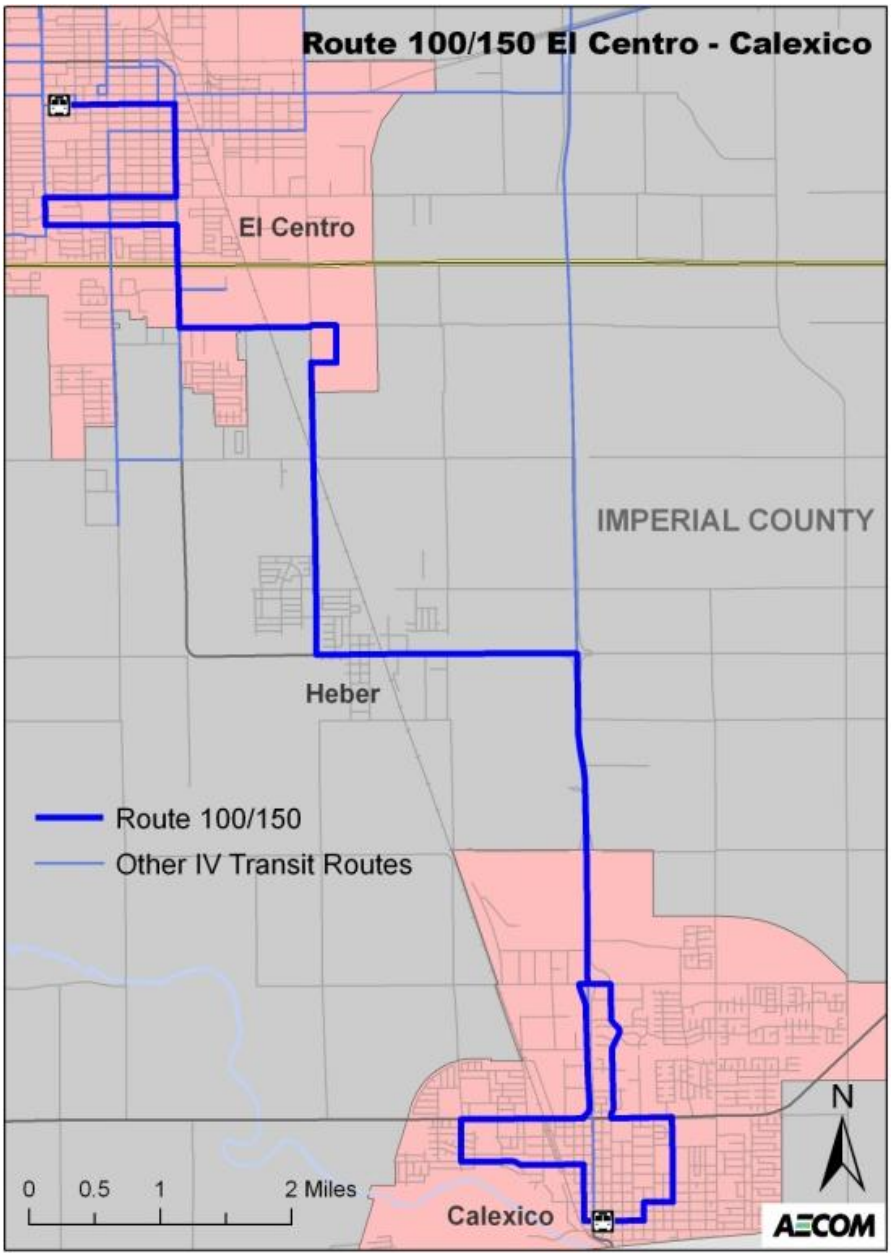
Route 100/150 connects 14th Street and State Street in El Centro with Calexico, serving Heber and the Imperial Valley Mall in between. This route serves the southern portion of the "spine" connecting the largest population centers in the Imperial Valley. This route is the busiest in the system, accounting for 49 percent of total trips - some northbound trips exceed 70 passengers. Service operates six days per week on minimum 70-minute headways. Southbound service, referred to as "Route 100" operates from downtown El Centro to downtown Calexico roughly via California 86 and 4th Street, Danenberg Road, Dogwood Road, Heber Avenue, and California 111. Northbound trips, referred to as "Route 150", operate a loop through Calexico, then retrace the southbound route back to El Centro. Table 3-9 shows basic operating statistics for Route 100/150. Figure 3-10 following shows a map of Route 100/150.

Table 3-9: Route 100/150 Operating Statistics

	Northbound (150)	Southbound (100)
Route Length (Miles)	20	20
Scheduled Running Time	75 min	46 min
Weekday Headway	70 min	70 min
Annual Ridership	181,718	106,380

Sources: IV Transit data for second half of FY 2009-10; IV Transit Rider's Guide

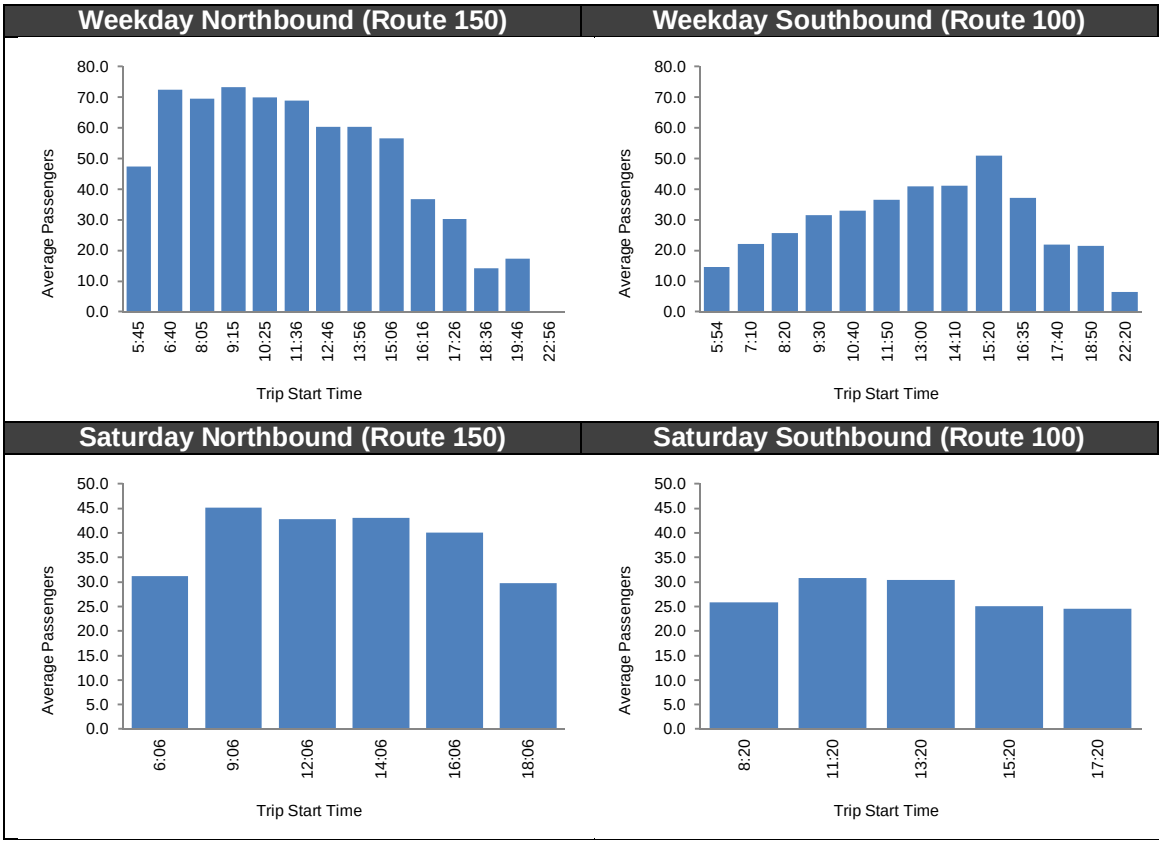
Figure 3-10: Route 100/150



The distribution loop in Calexico likely accounts for the large difference in ridership on this route, as it is almost entirely contained within northbound (Route 150) trips. Southbound (Route 100) passengers traveling to destinations along the Calexico loop must remain on the bus as it begins the northbound (Route 150) trip in order to reach their destinations, thus inflating ridership numbers for the northbound trip.

Figure 3-11 shows ridership by trip for Route 100/150 for weekdays and Saturdays. Northbound travel generally peaks during the morning hours, while southbound travel peaks during the afternoon. Additionally, unless turnover is high along this route (data not available), it is likely that some trips can be very crowded, with loads frequently exceeding 43 passengers (the number of seats available on IV Transit's largest vehicles).

Figure 3-11: Route 100/150 Ridership by Trip



Source: October 2009 IV Transit Ridership Data

Route 300/350 El Centro-Holtville

Route 300/350 connects the transfer point at 14th Street and State Street in El Centro with Holtville, located on California 115 to the east of El Centro. Five round trips are available Monday through Friday between Holtville and El Centro, with additional service on Wednesdays to Winterhaven (in the remote zone) – travel is available from Winterhaven to El Centro as part of the first westbound trip of the day, and from El Centro to Winterhaven on the last eastbound trip of the day. Table 3-10 shows operating statistics for Route 300/350, and Figure 3-12 shows a map of the route. While the previous routes showed headways as a metric of route frequency, routes serving the secondary corridor (such as Route 300/350 and Route 400/450) are described in terms of daily trips, as even though each trip on these routes meets the pulse in El Centro, the routes do not operate every time there is a pulse and the headways sometimes vary.

Table 3-10: Route 300/350 Operating Statistics

	Eastbound (300)	Westbound (350)
Route Length (Miles)	22	22
Scheduled Running Time	60 min	60 min
Daily Trips	5	5
Annual Ridership	7,160	7,535

Sources: IV Transit data for second half of FY 2009-10; IV Transit Rider's Guide

Figure 3-12: Route 300/350

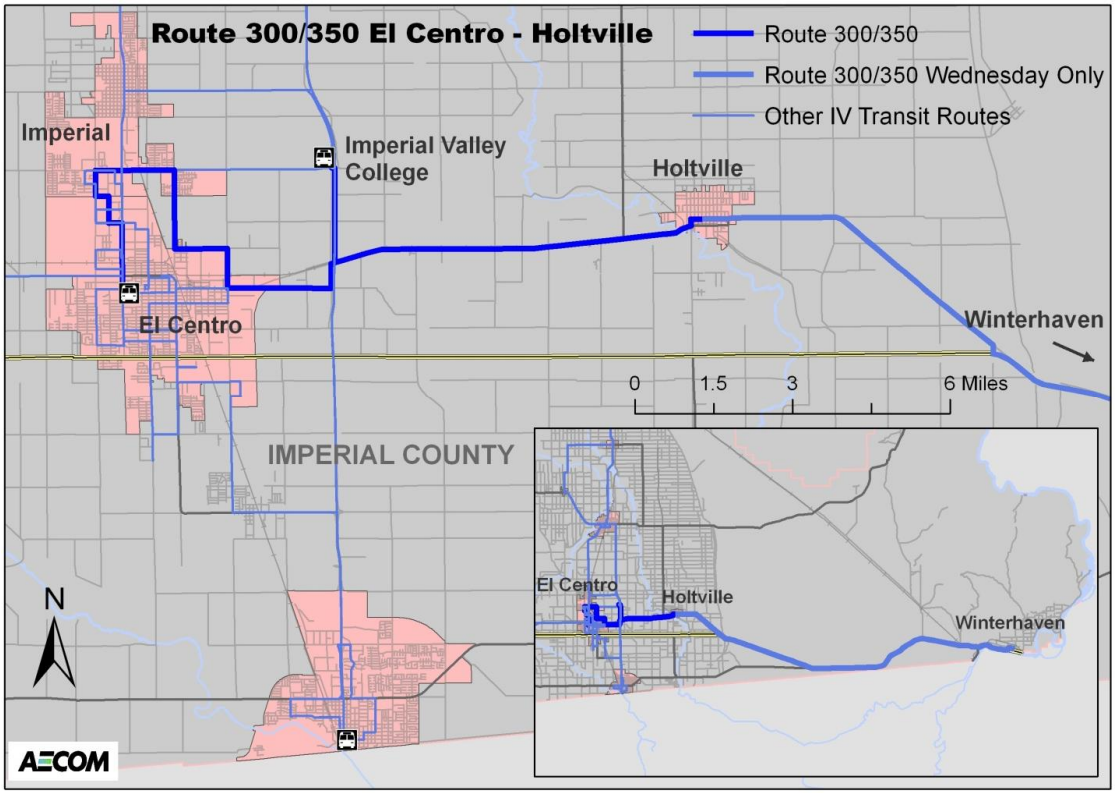
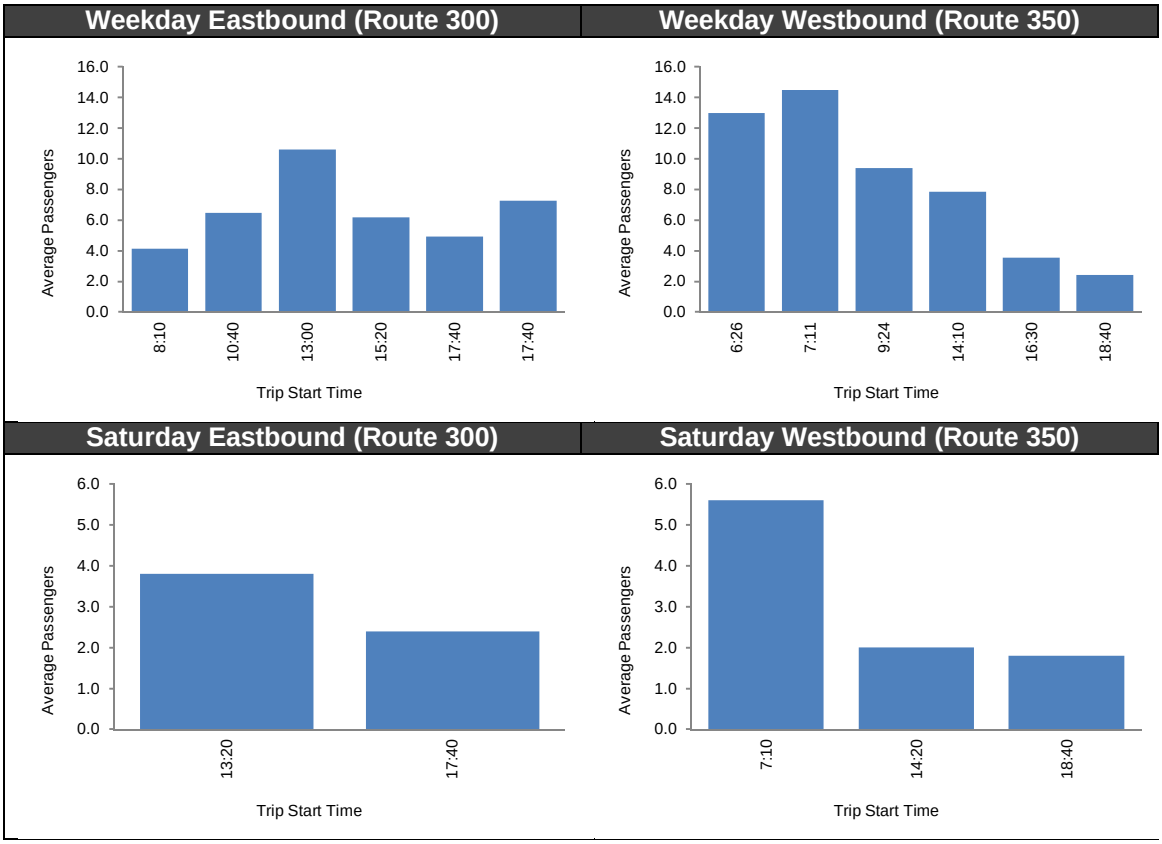


Figure 3-13 shows daily ridership on Route 300/350. On weekdays, ridership is heaviest in the morning in the westbound direction, midday in the eastbound direction. In Saturdays, the first trip of the day in each direction (7:10 AM westbound and 1:20 PM eastbound) is the busiest. Average ridership on this route is low, with only one trip exceeding 14 passengers.

Figure 3-13: Route 300/350 Ridership by Trip



Source: October 2009 IV Transit Ridership Data

Route 400/450 El Centro-Seeley

Route 400/450 connects El Centro (14th Street and State Street) with Seeley via Imperial County Highway S80. On Tuesdays, the route is extended with one route trip to Ocotillo in the morning. A return trip is available to Ocotillo on Tuesday evening, but must be requested at least one day in advance. On weekdays, the first trip of the day is extended to Imperial Valley College; on weekends, it serves the Hospital, K-Mart and Costco in El Centro. Limited deviated service is available west of LaBrucherie Road. Table 3-11 shows basic operating statistics for Route 400/450. Figure 3-14 shows a map of the route.

Table 3-11: Route 400/450 Operating Statistics

	Eastbound (450)	Westbound (400)
Route Length (Miles)	8	8
Scheduled Running Time	20 min	20 min
Daily Trips	4	5-6
Annual Ridership	3,777	4,418

Sources: IV Transit FY 2009-10 Ridership Data; IV Transit Rider's Guide

Figure 3-14: Route 400/450

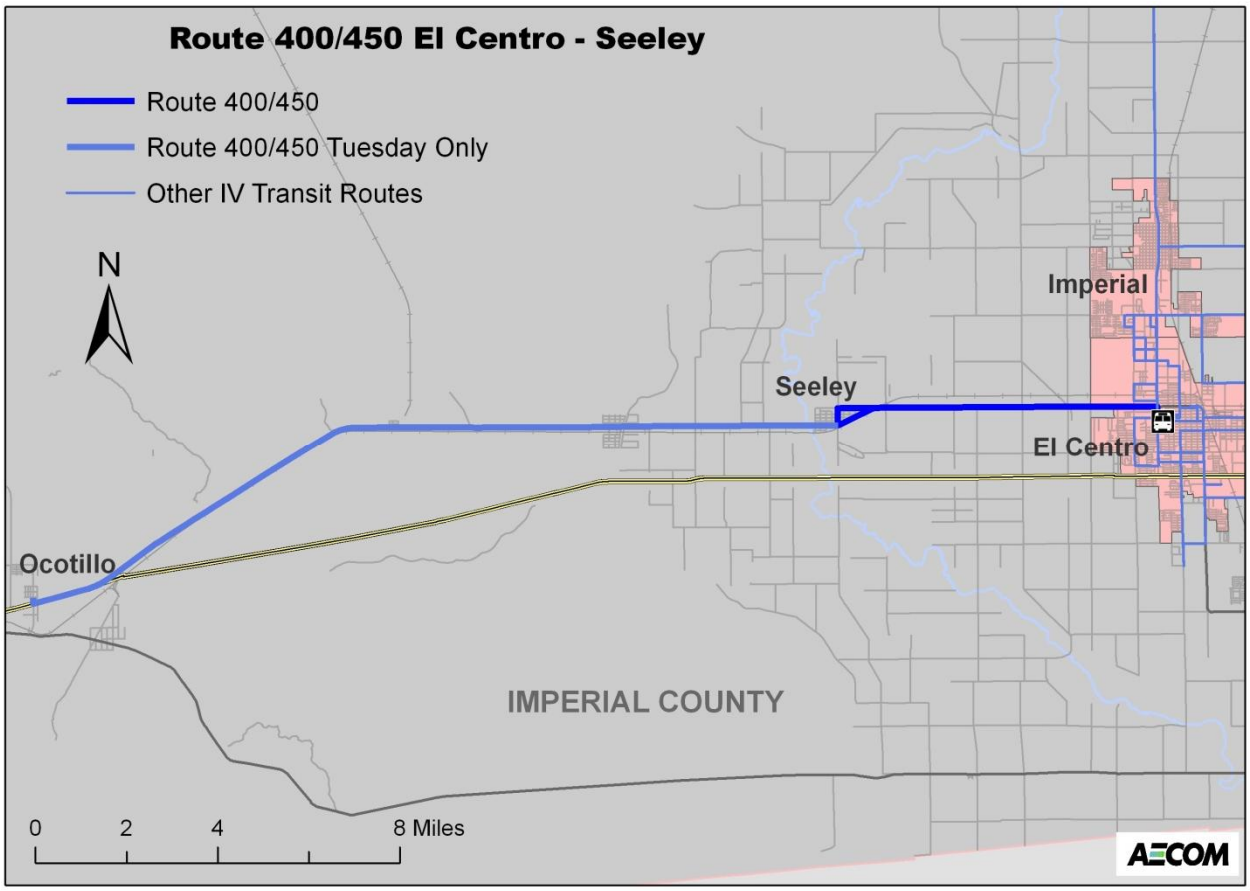
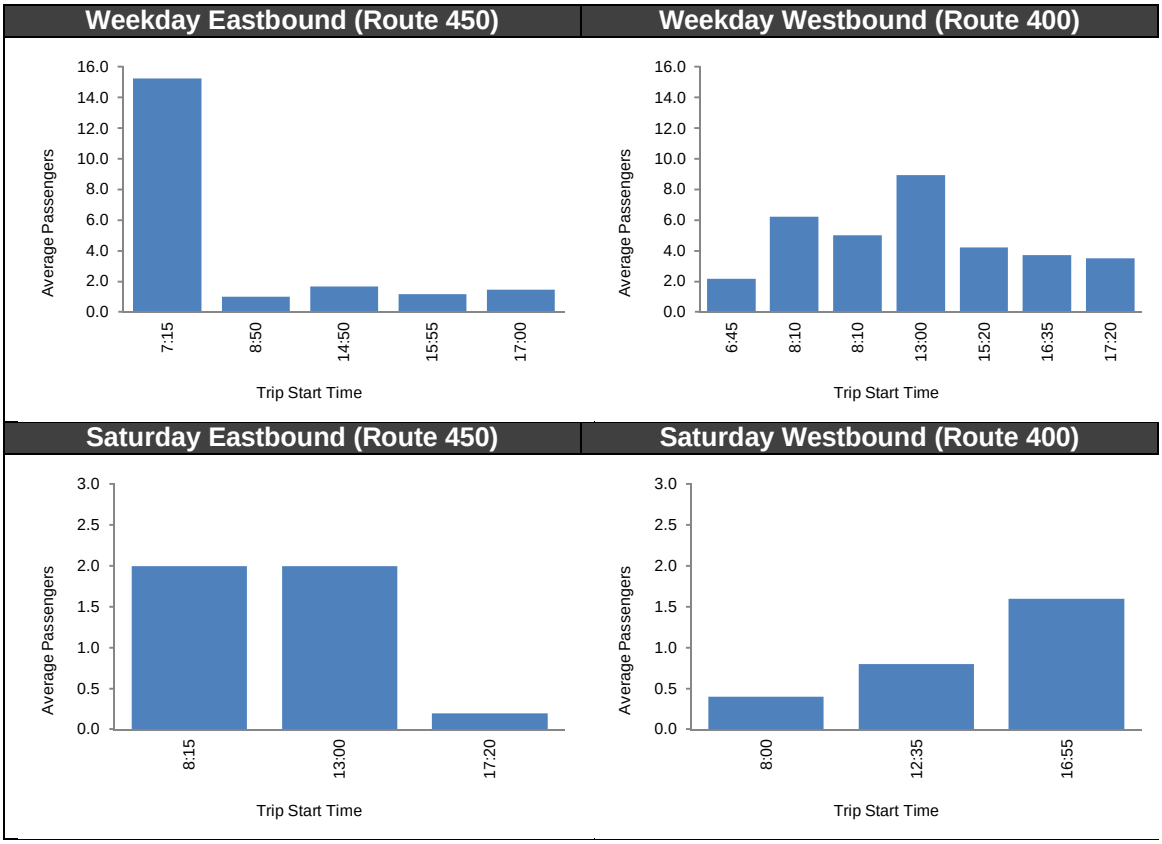


Figure 3-15 shows ridership on Route 400/450 by trip for weekdays and Saturdays. The maximum average ridership on this route is 15, on weekdays on the first eastbound trip of the day. Thus, as with Route 300/350, smaller vehicles (rather than 40-foot transit buses) can be used.

Figure 3-15: Route 400/450 Ridership by Trip



Source: October 2009 IV Transit Ridership Data

Route 500/550 Brawley-Bombay Beach

Route 500/550 serves connects Bombay Beach and the communities east of the Salton Sea with Niland, Calipatria and Brawley, allowing transfers to Route 50/200 for travel further south to El Centro. This route operates on Thursdays only and provides one southbound trip during the morning and one return, northbound trip during the evening. The route follows California 111 between Brawley and Bombay Beach with a diversion to the Fountain of Youth Spa. Basic operating figures for Route 500/550 are shown in Table 3-12; a map is shown in Figure 3-16.

Table 3-12: Route 500/550 Operating Statistics

	Northbound (550)	Southbound (500)
Route Length (Miles)	43	43
Scheduled Running Time	77 min	80 min
Daily Trips	1	1
Annual Ridership	137	216

Sources: IV Transit data for second half of FY 2009-10; IV Transit Rider's Guide

Figure 3-16: Route 500/550

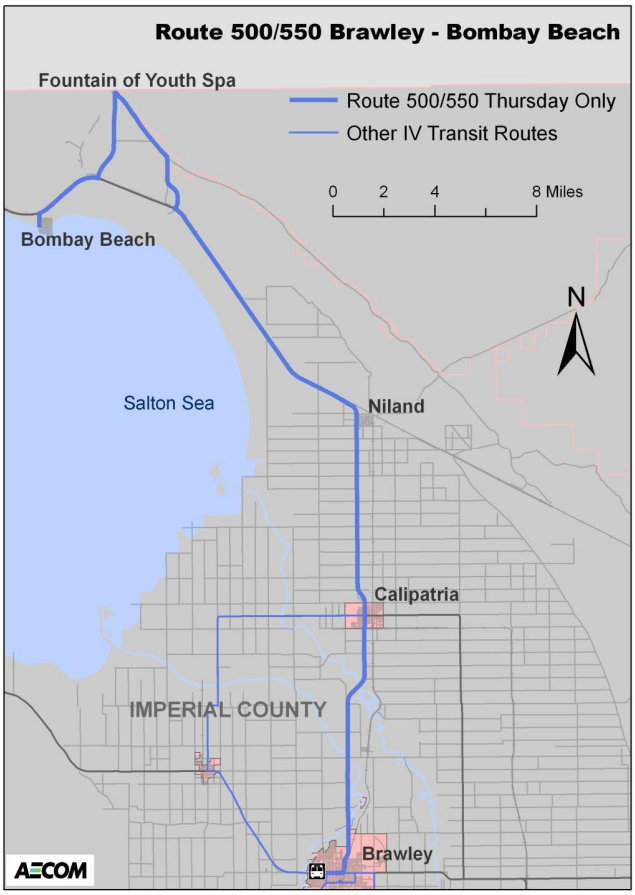
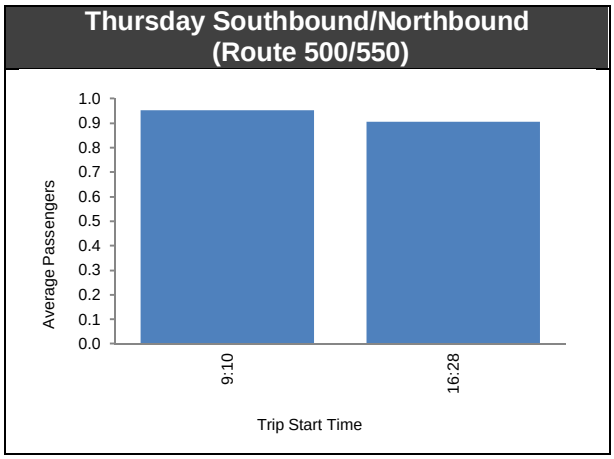


Figure 3-12 shows average ridership for Route 500/550 for June 2010. The morning trip is southbound (Route 500) while the afternoon trip is northbound (Route 55). Ridership on this route is low, averaging less than one passenger per trip.

Figure 3-17: Route 500/550 Ridership by Trip



Source: October 2009 IV Transit Ridership Data

Route 600/650 Brawley-Calexico Direct

Route 600/650 provides "direct" service on weekdays between Brawley and Calexico via California 111, bypassing El Centro, Imperial and Heber. It functions as an express route and requires a premium fare ($2.00 as of April 2011). Two northbound and two southbound trips are provided during the morning, and again in the evening. This route allows passengers to travel a distance that could take more than two hours on local routes (Routes 50/200 and 100/150, with a transfer in El Centro) in 35-40 minutes. Basic operating statistics for Route 600/650 are shown in Table 3-13 and a map of the route is shown in Figure 3-18.

Table 3-13: Route 600/650 Operating Statistics

	Northbound (600)	Southbound (650)
Route Length (Miles)	25	25
Scheduled Running Time	40 min	40 min
Daily Trips	4	4
Annual Ridership	14,391	15,142

Sources: IV Transit data for second half of FY 2009-10; IV Transit Rider's Guide

Figure 3-18: Route 600/650

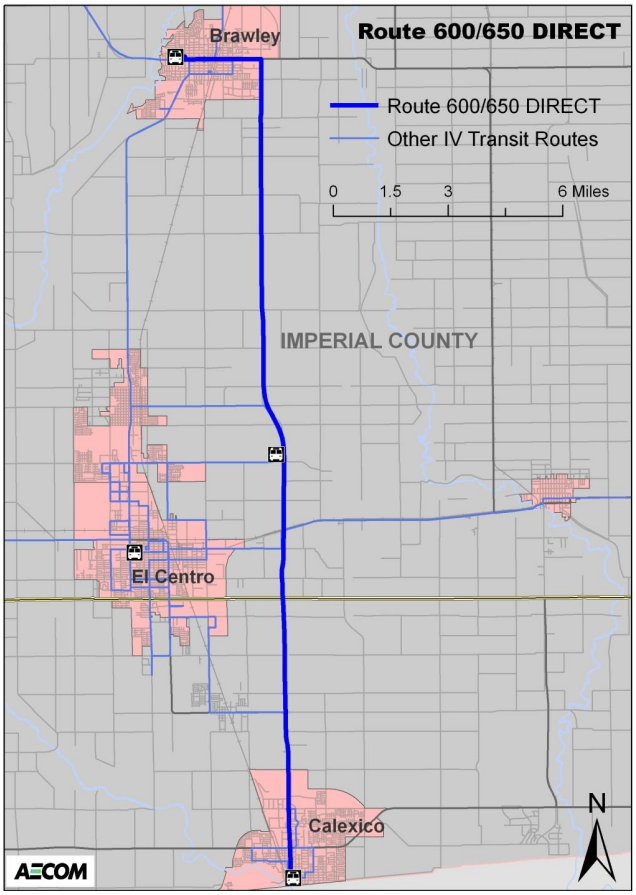
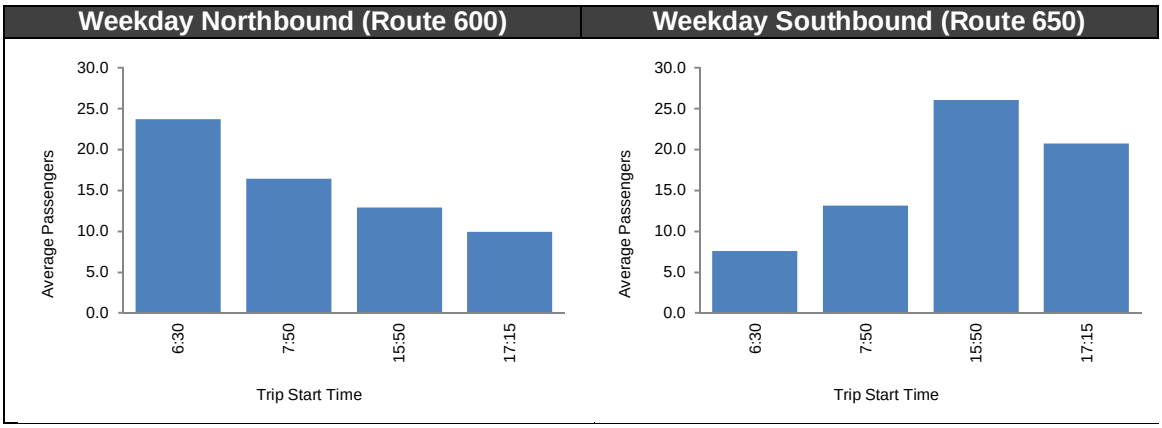


Figure 3-19 shows ridership by trip for Route 600/650. Northbound, there are more passengers during the morning while there are more during the afternoon southbound, suggesting people are traveling from Calexico (or Mexicali) to Brawley to work.

Figure 3-19: Route 600/650 Ridership by Trip



Source: October 2009 IV Transit Ridership Data

Route 800 Brawley-El Centro FAST

Route 800 provides one express trip from Brawley to the transfer location at 14th Street and State Street in El Centro on weekday mornings. This allows those living in Brawley to make early morning connections in El Centro and reach transfers or jobs in El Centro before 7:30 AM. The route makes a stop along the way at the Post Office in Imperial and requires a premium fare of $2.00. Operating statistics are shown in Table 3-14 below and a route map is shown in Figure 3-20.

Table 3-14: Route 800 Operating Statistics

	Route 800
Route Length (Miles)	15
Scheduled Running Time	30 min
Daily Trips	1
Annual Ridership	1,118

Sources: IV Transit data for second half of FY 2009-10; IV Transit Rider's Guide

Figure 3-20: Route 800

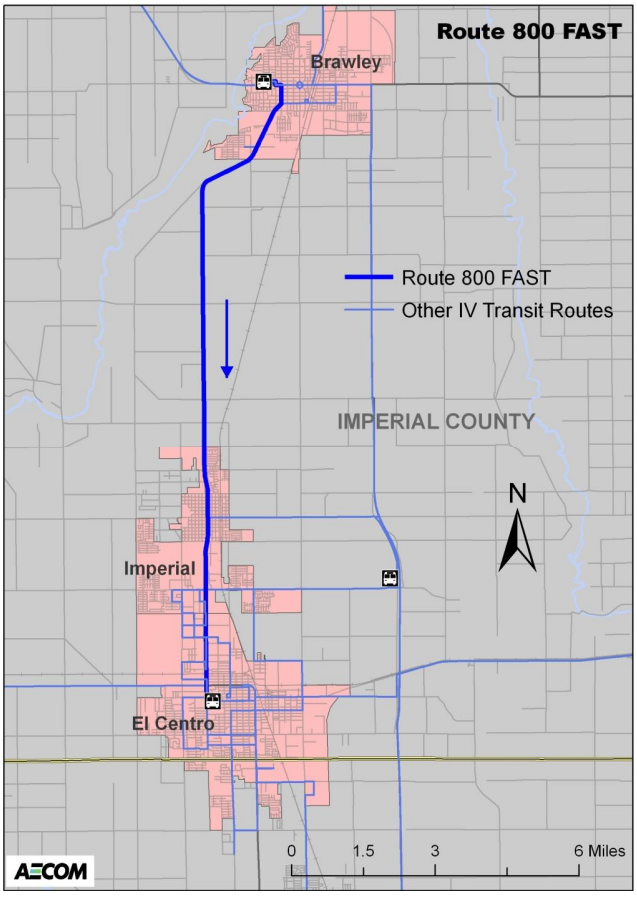
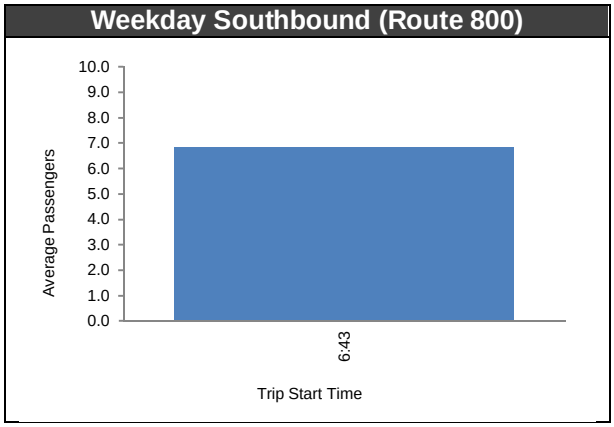


Figure 3-21 shows average ridership on Route 800 – approximately 7 passengers per trip in October 2009.

Figure 3-21: Route 800 Ridership by Trip



Source: October 2009 IV Transit Ridership Data

IVC Express – Niland

This route provides service to the Imperial Valley College from areas to the north, including Niland, Calipatria, Westmorland and Brawley on days when class is in session. The fare for this route is $1.00 for students, $1.50 for non-students as of April 2011. Two trips are provided to the school during the morning and two return trips are provided during the afternoon. Operating statistics for the route are shown in Table 3-15 below and a map of the route is shown in Figure 3-22.

Table 3-15: IVC Express – Niland Operating Statistics

	IVC Express - Niland
Route Length (Miles)	44
Scheduled Running Time	65-71 min
Daily Trips	2 SB AM; 2 NB PM
Annual Ridership	7,158

Sources: IV Transit data for second half of FY 2009-10; IV Transit Rider's Guide

Figure 3-22: IVC Express – Niland

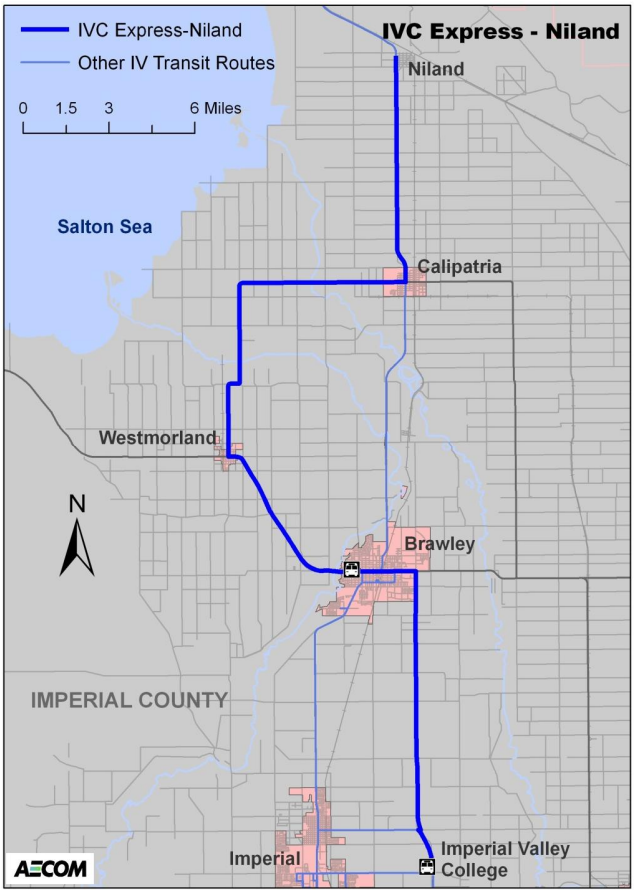
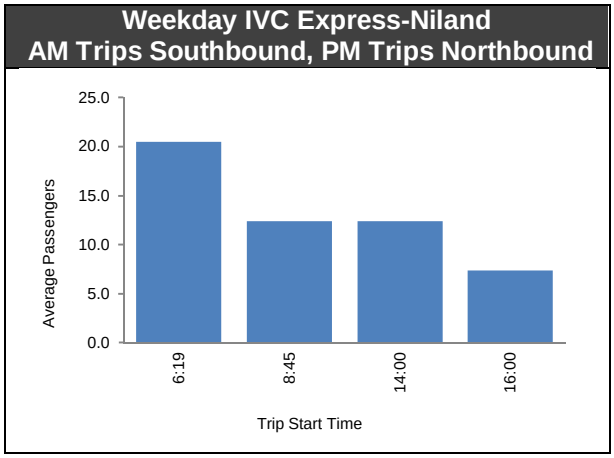


Figure 3-23 shows ridership on the IVC Express – Niland route as a per-trip average for October 2009. Generally, 10-20 passengers used this route per trip. The two morning trips are southbound (to Imperial Valley College) and the two afternoon trips are northbound (from Imperial Valley College).

Figure 3-23: IVC Express – Niland Ridership by Trip



Source: October 2009 IV Transit Ridership Data

IVC Express – Calexico

This route serves as the counterpart to the IVC Express-Niland, directly connecting the Imperial Valley College with Calexico, eliminating the need to transfer in El Centro. The IVC Express-Calexico operates on schooldays only, with a fare of $1.00 for students and $1.50 for non-students. The route operates a similar loop at its southern end as Route 100/150, allowing for the pickup and distribution of passengers throughout Calexico. Three trips are provided to the Imperial Valley College in the morning and three return trips are provided to Calexico in the afternoon. Table 3-16 shows operating statistics for the route, while Figure 3-24 shows a route map.

Table 3-16: IVC Express – Calexico Operating Statistics

	IVC Express – Calexico
Route Length (Miles)	15.5
Scheduled Running Time	47-62 min
Daily Trips	3 NB AM, 3 SB PM
Annual Ridership	41,303

Sources: IV Transit data for second half of FY 2009-10; IV Transit Rider's Guide

Figure 3-24: IVC Express – Calexico

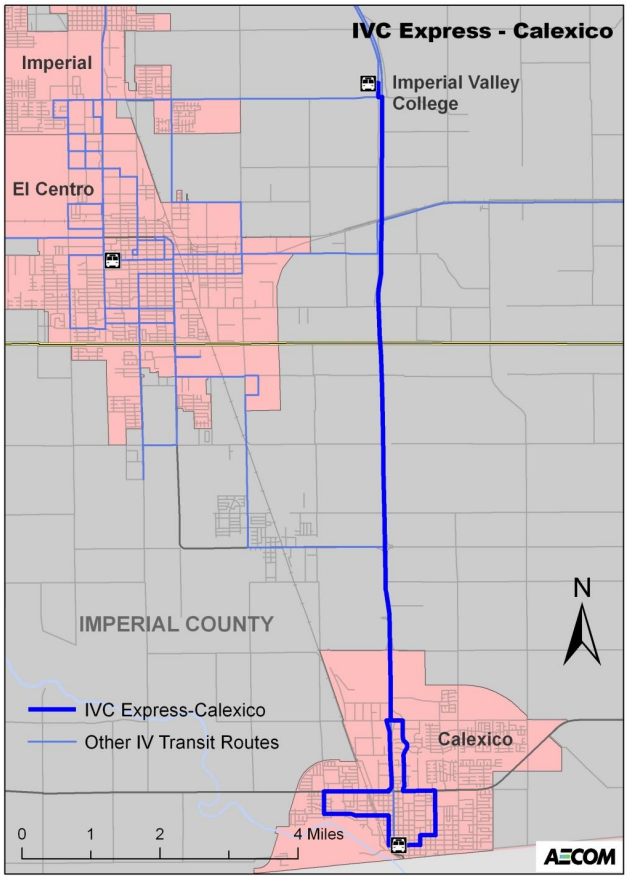
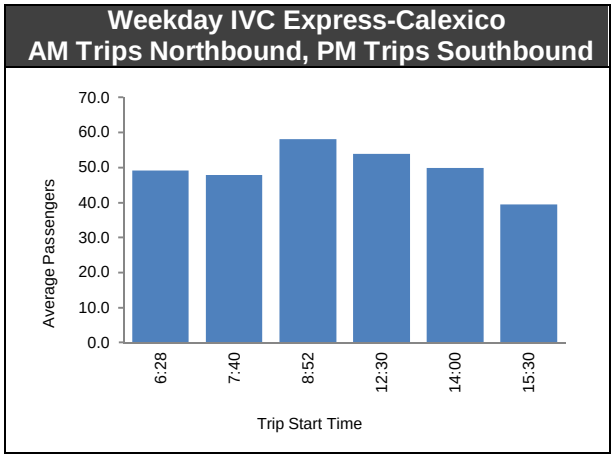


Figure 3-25 shows ridership by trip for the IVC Express-Calexico. The three morning trips are northbound (to the school) and the three afternoon trips are southbound (to Calexico). The busiest trips are the last trip to IVC in the morning and the first trip to Calexico in the afternoon. Nearly every trip carries a number of passengers that exceeds the maximum number of seats (43) on IV Transit's largest vehicles. Considering that this is an express route and every passenger is (assumedly) traveling to IVC, this means that any time ridership exceeds the average, some passengers must stand for the duration of the trip from Calexico to IVC.

Figure 3-25: IVC Express – Calexico Ridership by Trip



Source: October 2009 IV Transit Ridership Data

Route 750 Blue Line

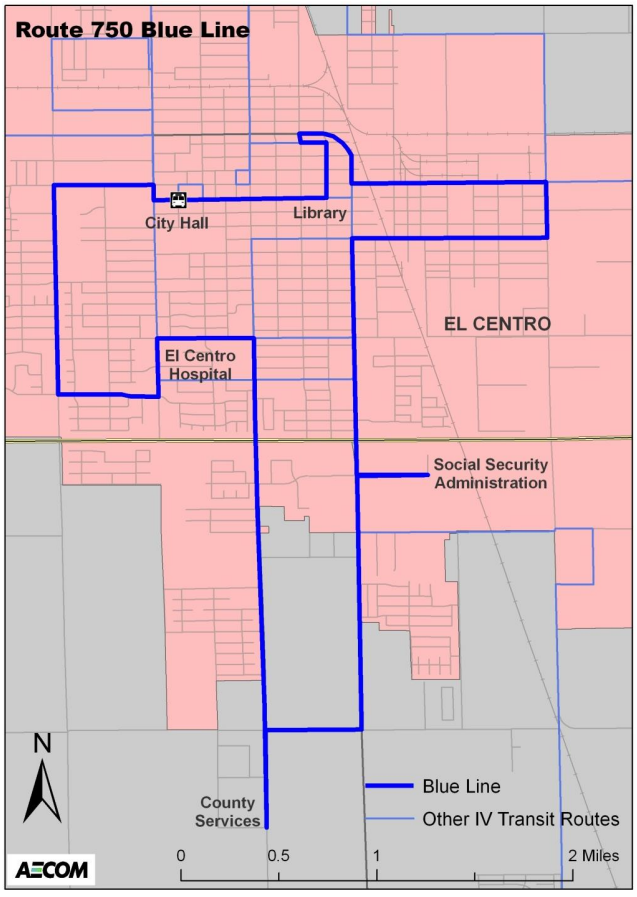
The Blue Line provides local circulation within El Centro, connecting the southern portion of the city with medical and social services and other important destinations. Service operates on weekdays only, every 70 minutes, and timed transfers are available at 14th and State Streets with IV Transit Routes including 50/200, 100/150, 300/350 and 400/450. This route is operated as a separate scope of work under the IV Transit contract with ICTC. Table 3-17 shows operating statistics for the Blue Line and Figure 3-26 shows a map of the route.

Table 3-17: Route 750 (Blue Line) Operating Statistics

	Blue Line
Route Length (Miles)	13
Scheduled Running Time	58 min
Minimum Headway	70 min
Annual Ridership	15,625

Sources: IV Transit FY 2009-10 Ridership Data; IV Transit Rider's Guide

Figure 3-26: Route 750 Blue Line



Route 850 Green Line

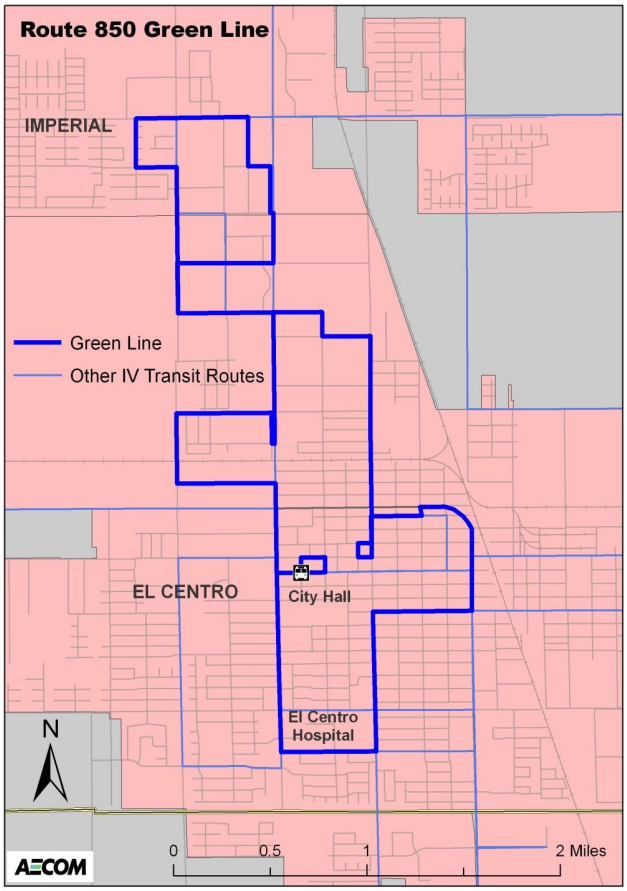
The Green Line is the counterpart to the Blue Line, providing weekday local circulator service in El Centro. While the Blue Line serves more locations in the southern portion of the city, the Green Line serves more in the northern part. As with the Blue Line, the Green Line operates on 70-minute headways and offers connections with the Blue Line and Routes 50/200, 100/150, 300/350 and 400/450 at 14th Street and State Street in El Centro. Table 3-18 shows operating statistics for the Green Line, while Figure 3-27 shows a map of the route.

Table 3-18: Route 850 (Green Line) Operating Statistics

	Green Line
Route Length (Miles)	14
Scheduled Running Time	58 min
Minimum Headway	70 min
Annual Ridership	6,156

Sources: IV Transit FY 2009-10 Ridership Data; IV Transit Rider's Guide

Figure 3-27: Route 850 Green Line



Proposed Circulator Services

As per the Imperial County Transit Vision, a 20-year long range transit plan completed in 2000, several community circulator routes have been proposed for Imperial County's larger urban centers, including El Centro, Calexico, Brawley and the City of Imperial. The proposed community routes would allow a reduction in local circulation on the intercity routes, reducing travel times and potentially allowing for shorter headways (utilizing the same number of vehicles). Both the Blue Line and Green Line circulators in El Centro were implemented in response to this plan. Other proposals include:

- Proposed Gold Line (Brawley)
- Proposed Orange Line (Calexico)
- Proposed Red Line (Imperial)

Fixed Route Operations

Table 3-19 shows annual revenue hours, miles and ridership for each route in the system. The most service (hours and miles) is provided on Route 50/200, followed by Route 100/150 then the Blue and Green Lines (in terms of hours) or Route 300/350 (in terms of miles). The least service is provided on Route 500/550, which offers only one round trip per day, followed by Route 800, which offers a single, one-way trip on weekdays. Ridership, on the other hand, is highest on Route 100/150, followed by Route 50/200, IVC Express-Calexico then Route 600/650. It is interesting to note that each of the four busiest routes connects two or more of the four biggest cities in the county, all of which are located in the primary corridor zone. Three of the four busiest routes serve Calexico. Nearly 49 percent of all trips are taken on just one route, Route 100/150 and an additional 30 percent of trips are taken on Route 50/200, thus nearly four out of five trips are taken on one of these two routes.

Table 3-19: Annual Revenue Hours and Miles and Ridership by Route

Route	Hours	Miles	Ridership
50/200 El Centro-Niland	10,151	268,164	178,806
100/150 El Centro-Calexico	8,135	124,816	288,098
300/350 El Centro-Holtville	3,043	65,965	14,695
400/450 El Centro-Seeley	1,232	24,059	8,195
500/550 Brawley-Bombay Beach	129	4,127	353
600/650 Direct Service	1,449	50,608	29,533
800 FAST Service	128	3,544	1,118
IVC Express Niland	915	31,625	7,158
IVC Express Calexico	1,047	18,333	41,303
750 Blue Line	3,184	38,791	15,625
850 Green Line	3,182	36,683	6,156
Total	**32,595**	**666,715**	**591,040**

Source: FY 2009-10 IV Transit Operating Data

Ridership

Table 3-20 shows daily ridership by route for the IV Transit fixed routes.

Table 3-20: Weekday and Saturday Ridership by Route

Route	Weekdays	Saturdays	Weekday Rank	Saturday Rank
50/200 El Centro-Niland	796	285	2	2
100/150 El Centro-Calexico	1,061	369	1	1
300/350 El Centro-Holtville	69	16	5	3
400/450 El Centro-Seeley	41	7	8	4
500/550 Brawley-Bombay Beach	8	-	10	-
600/650 Direct Service	130	-	4	-
800 FAST Service	7	-	11	-
IVC Express Niland	53	-	7	-
IVC Express Calexico	298	-	3	-
750 Blue Line	62	-	6	-
850 Green Line	24	-	9	-
Total	**2,548**	**677**	**N/A**	**N/A**

Source: October 2009 IV Transit Ridership Data

Fare Policies

For service within one zone, the cash fare is $0.75 per person, $0.35 for seniors/disabled (including the Blue and Green Lines, which cost $0.75 per person). For service anywhere in the region (two or three zones), the cash fare is $1.00 per person, $0.50 for seniors/disabled. Persons age 62 and older are eligible for the senior fare at any time of day (federal law mandates persons 65 and older are eligible for the discounted fare during the off-peak period). Discounted tickets are available in booklets of 20 for $12.00 (single zone) or $16.00 (all zones) in locations across the Imperial Valley (Calipatria, El Centro, Holtville, Imperial and Westmorland city halls, Imperial Valley College library and at the Imperial Valley Transit office). For senior/disabled passengers, booklets of 20 tickets cost $7.00 or $12.00. Route 600/650 "Direct" and Route 800 "FAST" services require passengers to pay a premium $2.00 fare – riders wishing to pay the regular $1.00 fare have the option of taking the slower Routes 100/150 and 50/200. Additionally, the fare for IVC express routes is $1.50, while students are eligible for the discounted fare of $1.00.

Additionally, social services organizations can purchase coupons in bulk, valid for one ride, to distribute as needed. Transfers are free between routes, except to/from the Blue and Green Lines, which require an additional full fare. The IV Transit Fare Policy is outlined in Table 3-21 below:

Table 3-21: IV Transit Fare Policies

Fare Type	Regular	Senior/ Disabled
Cash – One Zone	$0.75	$0.35
Cash – All Zones	$1.00	$0.50
Premium (Direct/FAST)	$2.00	-
IVC Express – Student	$1.00	-
IVC Express – Non-Student	$1.50	-
20 Tickets – Student (IVC Routes Only)	$20.00	-
20 Tickets – One Zone	$12.00	$7.00
20 Tickets – All Zones	$16.00	$10.00
Day Pass – One Zone	$2.00	-
Day Pass – All Zones	$3.50	-
Transfers (Except Blue/Green Lines)	Free	Free
Children 5 and Younger	Free	-

Source: IV Transit Rider's Guide

IV Transit fare zones, which differ from service zones, are defined as:

- Zone 1 – Bombay Beach and the Spas east of the Salton Sea (far northeast)
- Zone 2 – Niland and Calipatria (northeast)
- Zone 3 – Westmorland and Brawley (north)
- Zone 4 – Imperial, El Centro, Imperial Valley College, Heber and Seeley (central)
- Zone 5 – Heber and Calexico (south)
- Zone 6 – Holtville and Winterhaven (east)

Equipment and Facilities

Garage, Maintenance and Administrative Facilities

Fixed route service, the Calexico Dial-a-Ride and IVT Access are operated out of IV Transit's garage at 792 E Ross Road, between El Centro and Holtville. Maintenance and fueling are conducted on-site; 3-4 mechanics are available for maintenance and fueling is conducted at 3:00 AM each morning. This garage has been leased since 2005. The El Centro and Imperial Dial-a-Rides are operated out of ARC's garage on Ross Road east of El Centro, with fueling taking place at a local contractor and maintenance at a nearby Ford dealership (5310 funded – under warranty). The West Shores Dial-a-Ride is operated out of the driver's home in Westmoreland, while the Brawley Dial-a-Ride is operated by Sunrise Driving Service out of the driver and dispatcher's home.

Transfer and Terminal Facilities

Several transfer and terminal facilities are available throughout Imperial County, typically at one key stop within each of the larger cities. Facilities either exist or are planned for El Centro, Calexico, Brawley, Imperial and at the Imperial Valley College. Key transfer points are located in El Centro and IVC, with plans for a transfer point in Brawley.

- **El Centro** – Transfers are available at the corner of 14th and State Streets between Routes 50/200, 100/150, 300/350, 400/450, 800, and the Blue and Green Lines. Transfers are generally timed on a pulse system with departures approximately every 70 minutes during the day on weekdays; Routes 50/200, 100/150 and the Blue and Green Lines operate every 70 minutes on weekdays with other routes operating less frequently. A bus shelter is available on the north side of State Street, but not on the south side. This facility is scheduled to move to the intersection of 7th and State Streets in approximately one year.

- **Calexico** – The key downtown stop in Calexico is located at 3rd Street and Paulin Avenue and is served by Route 100/150 and the IVC Express – Calexico and is the terminal for Route 600/650. This stop is scheduled for upgrading in 2016 using a planning grant. A large shelter with several benches is available at this location. In addition, a federal grant has been received to perform a feasibility study for a new multimodal facility at a different location in Calexico.

- **Brawley** – A transfer point between the proposed "Gold Line" circulator service and IV Transit's existing fixed route service is planned for the corner of South Plaza Street and G Street, with access from the north and east sides. Route 50/200 and 500/550 schedules are coordinated to allow transfers; Route 600/650 schedule is not coordinated with Route 50/200.

- **Imperial** – A federal earmark has been received to locate a "mini transit park" at a former Exxon station in Imperial.

- **Imperial Valley College** – In the first phase of a two-phase project, a transfer terminal was recently completed on the northeast corner of the IVC campus. This facility is served by Routes 100/150, 300/350 and the IVC Express Routes (Calexico and Niland), as well as demand response services. The second phase of the project, an additional terminal for demand response services, is under way for the southwest corner of campus.

Stops and Shelters

IV Transit serves 117 stops throughout Imperial County, 41 of which have shelters, 19 of which have trash cans and 90 of which have signs. ICTC and public agency staff make recommendations for where bus stops would be useful and should be placed; the exact location along a street or near an intersection is ultimately dependent on the safety and feasibility of the location as determined by each local municipality. Stop amenities are also funded and maintained at the city or town level. Imperial County's bus stop inventory is listed by locality in Table 3-22.

Table 3-22: Bus Stop Inventory

City	Stops	Shelters	Trash Cans	Signs
Brawley	20	11	1	16
Calexico	14	5	1	12
Calipatria	4	2	2	2
El Centro*	55	13	13	45
Holtville	2	1	1	2
Imperial	3	2	0	2
Westmorland	2	2	0	2
County/Other**	17	5	1	9
Total	**117**	**41**	**19**	**90**

*Data available for 48 of 55 stops (includes 19 Blue/Green Line only stops). **Data available for 15 of 17 stops.
Source: ICTC Bus Stop Inventory

Equipment and Fleet Utilization

The IV Transit fleet consists of ten 40-foot and two 30-foot transit buses for most fixed-route service, 10 smaller cutaway vans for the remote zones and five support vehicles. Seven cutaways are leased; the remainder of the fleet is owned by First Transit. All 40-foot transit buses were rebuilt in 2005 (including new engines and upholstery), extending their service for seven more years, and are scheduled for replacement in 2012; 30-foot transit buses date from 2008 and cutaways span model years 2003-2010. Table 3-23 below presents IV Transit's vehicle fleet.

According to 2009 National Transit Database reporting, IV Transit utilizes 14 vehicles in maximum revenue service for the fixed routes. With 20 total vehicles in the fixed route fleet, IV Transit's spare ratio is 43 percent.

Table 3-23: IV Transit Fleet

Number	Vehicle Year	Engine Model Year	Make	Model	Seating Capacity	Fuel	Owner
Revenue Vehicles							
8	1988 (rebuilt 2005)	2002 (rebuilt 2005)	Gillig	40102tb6v92t	43	Diesel	First Transit
2	1989	2002	Gillig	40102tb6v92t	41	Diesel	First Transit
1	2003	2003	Ford	E450 Champion	16	Diesel	First Transit
1	2004	2003	Ford	E450 El Dorado National	16	Diesel	First Transit
1	2007	2007	Ford	E450 El Dorado	18	Diesel	First Transit
1	2008	2008	Chevy	C5500 Duramax	24	Diesel	Leased
3	2009	2009	Ford	E450 Starcraft	20	Gas	Leased
2	2009	2009	Ford	E450 El Dorado	20	Diesel	Leased
1	2010	2010	Chevy	C5500 Duramax	30	Diesel	Leased
Support Vehicles							
1	1997	1997	Chevy	Cheyenne	3	Gas	First Transit
1	1998	1998	Ford	Crown Victoria	6	Gas	First Transit
1	2000	2000	Ford	Crown Victoria	5	Gas	First Transit
2	2006	2006	Ford	Focus – 4 Door	4	Gas	First Transit

Source: August 2011 IV Transit Vehicle Master List

Organization

Transit service throughout Imperial County is overseen by the Imperial County Transit Commission (ICTC), which consists of three employees. ICTC oversees each of the service contracts encompassing fixed-route transit service, general public demand response service, and Paratransit. Currently, First Transit holds contracts for IV Transit, IV Transit Blue and Green Lines, IVT Access (formerly AIM Transit, providing paratransit service throughout the "irrigated area") and the dial-a-ride service in Calexico (senior/disabled only). ARC – Imperial Valley holds contracts for Med-Express (paratransit service to medical facilities in San Diego County) and the dial-a-ride services in Imperial and El Centro (senior/disabled only) and the West Shores area (general public). Sunrise Driving Services holds a contract for demand response (dial-a-ride) service in Brawley, which is available to the general public. While operated by First Transit, ARC or Sunrise, each city maintains additional authority over its own dial-a-ride service.

Financial Plan

This section enumerates current revenues and expenses, revenue by fare type, and historical ridership, costs and farebox revenues for ICTC's fixed route services. As with other sections, the data used was the most recent available data, in this case estimates for FY 2010-11.

Current Revenues and Expenses

Table 3-24 shows projected revenues and expenses for IV Transit fixed route service for Fiscal Year 2010-11. Overall, expenses are projected to be $3,733,889 for the provision of fixed route service with projected farebox revenues of $541,414. Fares are projected to cover 14.5 percent of operating costs, leaving $3,192,475 to be funded from federal, state and local sources.

Table 3-24: FY 2010-11 Projected Revenues and Expenses for Fixed Route Service

Source	IV Transit	IV Transit Blue and Green Lines	Fixed Route Total
Expenses			
Total Expenses	**$3,072,428**	**$661,461**	**$3,733,889**
Revenues			
Farebox Revenues	$445,502	$95,912	$541,414
Federal Section 5311 (Rural)	$363,578	$0	$363,578
Federal Section 5307 (Urban)	$657,856	$261,790	$919,646
State AB 2551	$925,945	$0	$925,945
Local	$679,547	$303,759	$983,306
Total Subsidy	$2,626,926	$565,549	$3,192,475
Total Revenues	**$3,072,428**	**$661,461**	**$3,733,889**

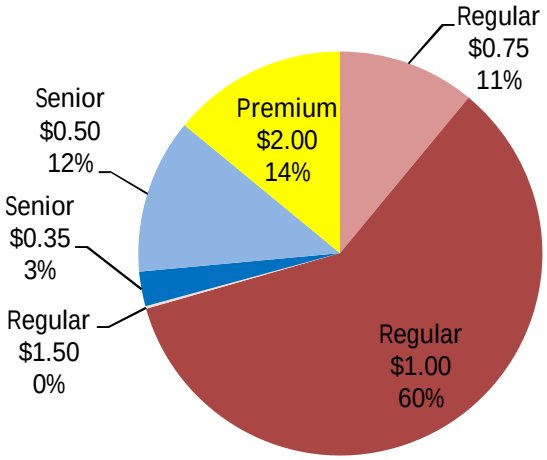
Source: ICTC FY 2010-11 Overall Work Plan & Budget

Demand response service, including AIM Transit/IVT Access, Med-Express and the five Dial-a-Rides is estimated to cost $2,130,040 with projected fare revenues of $233,100. Fares are expected to cover 10.9 percent of operating costs, requiring a subsidy of $1,896,940. (A 10 percent farebox recovery is required, with the exception of Med-Express which must – and does – meet a 20 percent farebox recovery requirement.) All funding for demand response services is projected to come from local sources, including the Local Transportation Fund as well as $100,000 from Local Transportation Authority (LTA) sales tax funds.

Revenue by Fare Type

As described earlier in this chapter, IV Transit charges different fare for regular passengers, senior/disabled passengers, or those using premium services (Direct/Fast routes). Within the regular and senior/disabled groups, fares vary by service zone (one zone or multiple zones). Figure 3-28 shows the proportion of passengers paying each type of fare for the month of February 2011. Total fare revenues for the month were $33,898. The majority (60 percent) of passengers paid the regular ($1.00) fare, with 11-14 percent each paying the regular single zone ($0.75), senior single zone ($0.35), and senior multiple zone ($0.50) fares.

Figure 3-28: February 2011 IV Transit Revenue by Fare Type



Historical Trends

Table 3-25 shows revenue miles and hours, ridership, cost, fare revenue, and farebox recovery for IV Transit's fixed routes for Fiscal Years 2007-08, 2008-09 and 2009-10. Revenue hours and miles decreased slightly from FY 2007-08 to FY 2008-09 then increased again in 2009-10. Ridership and costs increased year-over-year. Fare revenues increased at a slightly higher rate than costs, thus allowing farebox recovery to increase year-over-year. On average, ridership increased by 16.0 percent from FY 2007-08 to FY 2008-09 (16.4 percent for the Blue Line) and by 6.4 percent from FY 2008-09 to FY 2009-10 (10.4 percent for the Blue/Green Lines combined).

Table 3-25: IV Transit Historical Trends

Contract	Miles	Hours	Ridership	Cost	Fare Revenue	Farebox Recovery
FY2007-2008						
IV Transit	583,749	25,615	462,784	$2,516,712.85	$388,073.45	15.40%
Blue Line	78,298	6,416	16,955	$515,890.98	$18,545.04	3.60%
Total FR	662,047	32,031	479,739	$3,032,603.83	$406,618.49	13.41%
FY 2008-2009						
IV Transit	571,772	25,869	536,703	$2,668,834.33	$463,440.70	17.40%
Blue Line	74,073	6,090	19,730	$505,875.29	$17,617.66	3.50%
Total FR	645,845	31,959	556,433	$3,174,709.62	$481,058.36	15.15%
FY 2009-2010						
IV Transit	588,027	26,695	570,231	$2,826,722.36	$533,653.51	18.90%
Blue Line	38,791	3,184	15,625	$253,754.77	$9,947.31	3.90%
Green Line	36,683	3,182	6,156	$253,684.36	$4,107.80	1.60%
Total FR	663,501	33,061	592,012	$3,334,161.49	$547,708.62	16.43%

Source: Imperial County Transportation Commission RFP

Capital Plan

Currently, ICTC is engaged in several major capital upgrades, including the construction of new Transfer Terminals in El Centro and Brawley and planned facilities in Imperial and Calexico, as well as a Local Bus Stop Benches and Shelters Program. Additionally, a new transfer facility was completed at the Imperial Valley College in 2010. Programs include:

- **El Centro Intermodal Transfer Terminal** – A transfer facility is currently under construction for the corner of 7th and State Streets in El Centro. This facility will provide transfers between IV Transit intercity routes and IV Transit local (Blue and Green Lines) routes. This project is funded through the Federal Transit Administration's 5307 program and with stimulus funding from the American Reinvestment and Recovery Act (ARRA), and is estimated for completion in December 2011.
- **Local Bus Stop Benches and Shelters Program** – Local Transportation Fund (LTF) money is set aside for local jurisdictions to facilitate in the installation and maintenance of bus stops throughout the service area. It can be used to install new stops, or upgrade existing stops by adding benches and shelters or painting curbs. Stop locations are determined by ICTC, but local jurisdictions are responsible for installing and maintaining stop amenities.

Capital program costs and funding sources are listed in Table 3-26.

Table 3-26: Capital Program Costs and Funding Sources

Expense	Cost	Funding Source
El Centro Transfer Terminal Design (7th/State)	$189,495	FTA Section 5307
Regional Bus Stop Maintenance	$2,500	Local
Temporary Transfer Terminal Maintenance (14th/State)	$2,500	Local
Imperial Valley College Bus Terminal Phase I and II	$1,057,333	CTSGP and PMISEA
Shelters and Benches	$25,000	Local
El Centro Transfer Terminal Reserve	$3,430,995	$2,744,796 FTA Section 5307, $686,199 Local
Other Expenditures (match FTA 5309 grants, miscellaneous CTSGP, ARRA I Brawley and El Centro)	$3,570,976	CTSGP and PMISEA, FTA Section 5311 and FTA Section 5307
Total	**$7,001,971**	

Marketing

Until recently (July 2011), there were two websites for ICTC services: one for IV Transit (operated by First Transit, Inc.) and one for AIM Transit (operated by ARC-Imperial Valley). The IV Transit website includes route schedules and maps, as well as some fare and other information. The AIM Transit website included a fare matrix and coverage area map, as well as eligibility information and forms, and rules and regulations concerning use of the service. Neither Med-Express nor any of the Dial-a-Ride services were included on either website. Currently, the IV Transit website is in the process of being re-designed. Additionally, the AIM Transit website closed as of July 1, 2011 when AIM Transit became IVT Access and service provision shifted from ARC Imperial Valley to First Transit, Inc. A new bi-lingual (English/Spanish) website was developed for IVT Access, separate from the IV Transit website. A website has also recently been developed for the Brawley Dial-a-Ride. Information regarding the Calexico Dial-a-Ride is provided on the City of Calexico's website, while the ARC-operated services are mentioned on ARC's website (although no further information is provided).

Printed materials are available as well, including a *Rider's Guide*, which includes all fixed route services and information except the Blue and Green Lines (for which paper flyers are available). Additionally, glossy pamphlets are available for AIM Transit/IVT Access and Med-Express. The *Rider's Guide* and paper pamphlets generally contain the same information as the websites. Materials are bi-lingual (English/Spanish), as are staff members who interact with the public.

Other (Private) Transit Operators

In addition to services overseen by the ICTC, additional transit operators provide both local and intercity service in the Imperial Valley. These include the following:

Calexico Transit System – is a private transit operator that provides fixed route, local transit service within Calexico seven days per week from 7:00 AM to 7:00 PM. Fares are $1.25 for adults and $0.75 for seniors for each of the four routes provided. Calexico Transit System is fully-funded through fare revenues and does not receive public support.

Numero Uno Shuttle – is a single-route operation providing service between the Mexican border in Calexico and downtown El Centro from 6:00 AM to 8:00 PM daily.

Intercity Bus Operators - Greyhound provides intercity bus service from Calexico and El Centro to locations throughout the United States. Several Mexican operators connect the Imperial Valley to destinations in Mexico.

Taxi Services – are available throughout the Imperial Valley from Blue Cab, Border Cab, Brawley Taxi, Calexico Taxi, California Cab, Holtville Cab, Imperial Valley Taxi and Yellow Taxi.

3.4.2 Demand Response Services

Demand response transit in Imperial County is operated in the form of a countywide ADA complementary paratransit service as well as local general public and senior/disabled "dial-a-ride" services. Dial-a-ride services are subsidized by ICTC and operated by private organizations in Brawley, Calexico, El Centro, Imperial and the West Shores area. AIM Transit, the county's ADA complementary paratransit service, was operated and managed by ARC – Imperial Valley, a local non-profit organization, and provided service throughout the fixed route service area. Starting in Fiscal Year 2011/12, this service will be called IVT Access and service will be provided under contract to First Transit. In addition to AIM Transit/IVT Access, certain disabled passengers are eligible for Med-Express, a service which shuttles Imperial Valley residents to medical facilities in San Diego County.

This section reviews the existing performance of Imperial County's seven demand responsive programs, developed from reported performance, cost and fare revenue information provided regularly to ICTC. Fleet inventory information immediately follows with detailed performance by demand response operator presented subsequently.

Existing Demand Response Programs

Imperial County's demand responsive services are oriented to residents of the county who need specialized transportation of various types and are generally coordinated by Imperial County Transportation Commission, working through the cities and various providers. These programs include two countywide services, the Americans with Disabilities Act (ADA) complementary paratransit service which was called AIM Transit, now IVT Accesss and a non-emergency medical transportation program that provides trips between Imperial County and selected San Diego county medical facilities. Additionally, community-based dial-a-ride services are provided in the cities of Brawley, Calexico, El Centro, Imperial and around the West Shores area of the Salton Sea.

An inventory depicting the key characteristics of these services is presented in Table 3-27. A map of the services is provided in Figure 3-29. These seven public paratransit programs serve various ridership groups:

- ADA certified riders traveling within the ¾ mile of IV Transit fixed routes, both within and between the cities and selected communities. Door-to-door service is available upon request.
- Non-ADA certified seniors and persons with disabilities traveling within the same ¾ mile envelope, served on a space-available basis.
- Seniors and persons with disabilities or other transit-dependent persons needing curb-to-curb trips and traveling within their respective communities of Brawley, Calexico, Imperial, El Centro, and the West Shores area.

- Persons from various sub-groups who need non-emergency medical trips to selected destinations in San Diego and can travel to the identified pick-up points within in Imperial County.

In terms of operating days, AIM Transit/IVT Access is providing service six days per week and Calexico Dial-a-Ride seven days per week. Each of the other communities is served only on weekdays, or in the case of West Shores, twice weekly on Tuesdays and Thursdays. The Med-Express service runs four days per week, alternating a Monday-to-Thursday and a Tuesday-to-Friday schedule every other week.

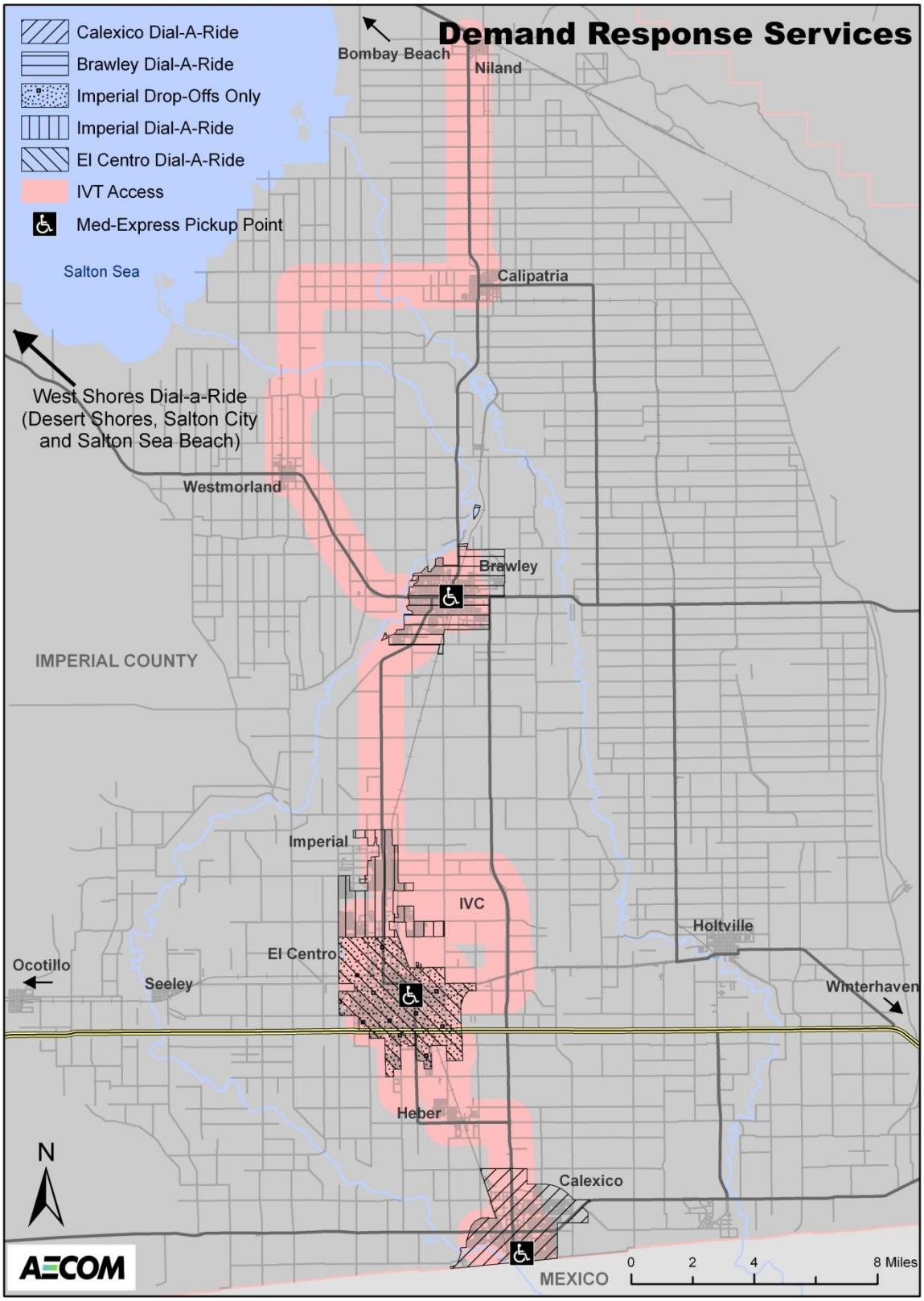
Operating hours and fares vary considerably by program and by trip distance for those services that are traveling between communities, notably AIM Transit/IVT Access and the Imperial Dial-a-Ride. MedExpress has a fixed round-trip fare between Imperial County and San Diego County, regardless of where one boards the vehicle, although fares do vary by passenger type. Public information about days, hours and service policies is variously available. Only AIM Transit/IVT Access and Calexico Dial-a-Ride have websites, each of which provide detailed ridership information. The other services' web presence is limited to telephone numbers.

Flyers were available for AIM Transit and Med-Express with schedule, reservation, and eligibility information – the AIM Transit flyer contained the same information as the website, including a rough service area map.

Table 3-27: Imperial County's Public Demand Response Program Characteristics

Service	Service Area	Function	Rider Eligibility	Days of Service	Hours of Service	Reser-vations	Fare
AIM Transit [Areawide Independent Mobility] (IVT Access) 760-592-4494 www.ivtaccess.com	¾ mile of IVT routes Primary Zone and Secondary Zone corridors	ADA comple-mentary paratransit program; curb-to-curb	ADA certified persons; others, including seniors 60+ , as space available	Monday-Friday Saturday	6 a.m. – 9 p.m. Mon.-Fri. 6 a.m. – 5:30 p.m. Saturday	up to 14 days in advance; same day if space available	$3 ADA certified $2 or $1.50
Med-Express 760-337-8002 www.arciv.org	Trips between Imperial Co. and San Diego Co.	Non-emergency medical transport: 3 defined Imperial Co. pick-up points to selected San Diego destinations	Children, seniors, persons with disabili-ties, veterans, low-come-Category A riders General public – Category B riders	Four days per week Alternate: Monday-Thursday or Tuesday-Friday	Leaves IC 7:00 a.m. Brawley – 5 am Calexico – 5:45 am El Centro – 6:30 am Picking up San Diego 2:45 -3 pm return to Imperial County	At least 24 hours but up to 30 days in advance	$15 round trip – Category A riders $7 round trip – Attendants $30 round trip – Category B riders
Brawley Dial-a-Ride 760-344-5377 www.brawleydialaride.com	City limits of Brawley	Curb-to-curb	General Public	Monday-Friday	7 am to 5 pm No reserva-tions after 4 pm	Same day	
Calexico Dial-a-Ride 760-482-0184 www.calexico.ca.gov	City limits of Calexico	Curb-to-curb	Seniors 60+, persons with disabili-ties	Seven days a week	8 am to 5 pm	1 day in advance Same day, at least 60 min. in advance	$1.00
Imperial Dial-a-Ride 760-337-8002 www.arciv.org	City limits of Imperial; trips	Curb-to-curb	Seniors 60+, persons with disabili-ties	Monday-Friday	7 am to 4 pm	Same day requests as space available; advance to 14 days	50 cents within Imperial; $1.75 Imp. to El Centro
El Centro Dial-a-Ride 760-337-8002 www.arciv.org	City limits of El Centro	Curb-to-curb	Seniors 60+, persons with disabili-ties	Monday-Friday	7 am to 4 pm	Same day requests as space available; advance to 14 days	$1.50
West Shores Dial-a-Ride 760-394-4380 www.arciv.org	Salton Sea area, Vista del Mar, Torres Martinez	Curb-to-curb	General Public	Tuesday and Thursday	7 am to 4 pm	Same day requests as space available; advance to 14 days	$2.00

Figure 3-29: Imperial County Demand Response Services



Demand Response Fleet Information

A total of 18 vehicles are operated in active service by Imperial County's demand responsive operators. Table 3-28 presents an inventory of the vehicles available for service, both those in regular peak-hour operation and those used as back-up. All vehicles are owned and operated by the respective contract providers. The FTA Section 5310 program was used to acquire many of the vehicles, all in operation with ARC Imperial Valley on behalf of AIM Transit, Med-Express and city dial-a-ride contracts.

Table 3-28: Demand Response Vehicles by Program

Fleet #	Year	Make	Seats	W/C Capacity
AIM - ADA Paratransit				
127	2005	Chevy 5500	26	4
132	2005	Chevy 5500	26	4
133	2007	Chevy 5500	22	3
134	2007	Chevy 5500	22	3
135	2007	Chevy 5500	22	3
146	2009	Ford E-450	16	2
111bkup	2001	Ford E-450	20	3
112bkup	2001	Ford E-450	20	3
MedExpress				
147	2009	Ford E-450	16	2
136bkup	2007	Ford E-450	16	2
Calexico Dial-a-Ride				
201	2003	Ford E-450	17	2
202	2003	Ford E-450	17	2
203	2003	Ford E-450	17	2
204	2008	El Dorado National	21	2
Brawley Dial-a-Ride				
407	2008	Ford Starcraft	8	2
445	2008	Ford Starcraft	8	2
406	2006	Chevy Astro Van	7	0
El Centro Dial-a-Ride				
148	2009	Ford E-450	16	2
138	2007	Ford E-450	16	2
118bkup	2002	Ford E-450	16	2
Imperial Dial-a-Ride				
137	2007	Ford E-450	16	2
117bkup	2002	Ford E-450	16	2
West Shores Dial-a-Ride				
142	2009	Ford E-450	16	2
139bkup	2008	Ford E-350	8	2

AIM Transit (Area-wide Independent Mobility) / IVT Access

This ADA complementary paratransit program was operated under contract with the Imperial County Transportation Commission and ARC-Imperial Valley. ARC-Imperial Valley, a non-profit corporation, operated five of the county's seven demand response services. AIM Transit was the only Federally mandated demand response transit service in Imperial County, required under the Americans with Disabilities Act of 1990 (ADA) to provide a complementary paratransit service for those persons who are unable to use fixed-route services due to disability.

Contractual Requirements

ARC-Imperial Valley's contractual requirements for the AIM Transit ADA program were set forth originally in a contract executed October 19, 2006 for a five year term through June 2011, with possible extensions through June 30, 2016. There have been two modifications to this contract to date: the first modification addressed the rate structure for fiscal years 2009-10 and 2010-11, while the second modification provided for further revisions to the cost and rate structure as well as to the *Estimated Service Allocation Table*, the anticipated revenue hours and revenue miles of service to be provided in FY 2010-11.

Service Area

Under this Agreement, which extensively details the operating requirements of the ADA program, the contractor is responsible for all aspects of the operation during the days and hours of service when IV Transit fixed-routes routes are operating (six days per week). The service area is described in terms of primary, secondary and remote zones. The primary zone is the north-south axis of the cities of Brawley, Imperial, El Centro and Calexico, with the corresponding areas of Imperial County in between. Two secondary zones are identified which are 1) the cities of Calipatria and Westmoreland and 2) the city of Holtville and the community of Seeley, both with the corresponding areas of Imperial County in between. Four remote zones are defined as: 1) community of Winterhaven; 2) communities of Bombay Beach and East Shores; 3) community of West Shores; and 4) the community of Ocotillo. The contractor's service area is defined as the two travel corridors within the primary zone and secondary zone: the north-south corridor and the east-west corridor within which ADA complementary paratransit services shall be provided, operating the same days and hours as when IV Transit fixed-route services operate. Service in the remote zones is provided one time per week.

The operating statistics for the AIM Transit system over the last three years show a very modest increase of 1.5 percent in ridership. System costs and subsidies to cover those costs have both increased by more than 18 percent. Vehicle service hours and miles decreased in FY 2008-09 but still represent an increase over FY 2007-08 levels. An overview of these operating statistics is provided in Table 3-29 below.

Table 3-29: AIM Transit Operating Statistics

AIM Transit	Ridership	Operating Cost	Subsidy	Fare Revenue	Vehicle Service Hours	Vehicle Service miles
FY 2007-08	36,303	$702,477	$609,935	$72,860	12,060	206,054
FY 2008-09	35,954	$722,093	$639,238	$74,700	12,006	201,441
FY 2009-10	36,803	$831,046	$722,214	$81,361	12,241	213,293
% change over 3 years	1.4%	18.3%	18.4%	11.7%	1.5%	3.5%

Table 3-30 reflects trends in performance indicators over this same three-year period. Although fare revenue has increased over the three year period, operating costs have increased at a higher rate, resulting in a reduction in farebox recovery ratio from 10.4 percent to 9.8 percent. The system has remained relatively cost effective by keeping a cost per trip lower than the set standard even as trip costs have increased by almost 17 percent over the three year period. The passenger per mile indicator of 3.0 is comfortably above the set standard of 2.0 and reflects very minimal change over time.

Table 3-30: AIM Transit Performance Indicators

AIM Transit	Farebox Recovery		Cost Per Trip		Passengers Per Revenue Hour		Passengers Per Revenue Mile	
	Actual	Standard	Actual	Standard	Actual	Standard	Actual	Standard
FY 2007-08	10.4%	10.0%	$19.35	$22.75	3.0	2.0	0.18	N/A
FY 2008-09	10.3%	10.0%	$20.08	$22.75	3.0	2.0	0.18	N/A
FY 2009-10	9.8%	10.0%	$22.58	$22.75	3.0	2.0	0.17	N/A
% change over 3 years	-5.6%		16.7%		-0.1%		-2.1%	

Med-Express

This service is operated by the private non-profit organization ARC – Imperial Valley under contract with the County of Imperial, on behalf of the Imperial County Transportation Commission (ICTC). Med-Express provides lifeline service connecting Imperial County residents with medical facilities in San Diego County where many regional specialty services are provided. The current Med-Express contract was executed in 2006 with an initial three-year term through June 30, 2011 and a potential five-year extension term of July 1, 2011 through June 30, 2016.

Table 3-31 shows that ridership for the Med-Express service has increased by almost 18 percent while operating costs have declined by 3.6 percent. In FY 2008-09 the service experienced a reduction in operating cost and subsidy but experienced an increase in ridership and fare revenue, raising farebox recovery and decreasing cost per trip. Vehicle service hours increased by 5 percent in FY 2009-10 while vehicle service miles have dropped slightly over the three year period.

Table 3-31: Med-Express Operating Statistics

Med-Express	Ridership	Operating Cost	Subsidy	Fare Revenue	Revenue Hours	Revenue Miles
FY 2007-08	3,713	$148,508	$111,083	$27,282	1,608	56,447
FY 2008-09	4,207	$137,126	$105,933	$29,957	1,616	56,174
FY 2009-10	4,374	$143,167	$113,397	$27,780	1,694	55,488
% change over 3 years	17.8%	-3.6%	2.1%	1.8%	5.3%	-1.7%

The Med-Express service continues to exceed the farebox recovery ratio standard, registering between 18 and 22 percent annually. Due to the length of trips provided and the nature of this service, the cost per trip indicator remains higher than the standard, but has decreased by more than 18 percent over the last three years. This can be further realized when examining the increases in both passengers per hour and passengers per mile indicators since FY 2007-08.

Table 3-32: Med-Express Performance Indicators

Med-Express	Farebox Recovery		Cost Per Trip		Passengers Per Revenue Hour		Passengers Per Revenue Mile	
	Actual	Standard	Actual	Standard	Actual	Standard	Actual	Standard
FY 2007-08	18.4%	10.0%	$40.00	$22.75	2.3	2.0	0.07	N/A
FY 2008-09	21.8%	10.0%	$32.59	$22.75	2.6	2.0	0.07	N/A
FY 2009-10	19.4%	10.0%	$32.73	$22.75	2.6	2.0	0.08	N/A
% change over 3 years	5.6%		-18.2%		11.8%		19.8%	

Brawley Dial-a-Ride

The Brawley Dial-a-Ride is a city-contracted program that operates largely within the Brawley city limits. It is the third-largest Imperial County demand response transit program, serving approximately 100 trips on a typical day. Table 3-33 below summarizes key operating statistics for this program. Ridership has been growing modestly over the past three fiscal years, increasing by 3 to 3.5 percent annually. Costs have grown at somewhat higher rates, near five percent each year, while the subsidy per trip has increased slightly more, reflecting a smaller growth in fare revenues received, around two percent annually. Revenue hours decreased in FY 2009-10, presumably at the request of the city and in response to a decreasing tax revenue base. It is notable that ridership still grew modestly, between FY 2008-09 and FY 2009-10, despite the reduction in service hours and the related reduction in revenue miles.

Table 3-33: Brawley Dial-a-Ride Operating Statistics

Brawley DAR	Ridership	Operating Cost	Subsidy	Fare Revenue	Revenue Hours	Revenue Miles
FY 2007-08	26,780	$189,324	$166,832	$23,048	5,193	54,529
FY 2008-09	27,615	$189,324	$166,730	$22,594	5,569	55,229
FY 2009-10	28,575	$208,250	$184,282	$23,968	5,339	53,605
% change over 3 fiscal years	6.7%	10.0%	10.5%	4.0%	2.8%	-1.7%

A decline in farebox revenue combined with rising operating costs led to a corresponding decline in the farebox recovery ratio. This drop, from 12.2 percent to 11.5 percent over the three years, represents a nearly six percent decrease in this standard. Conversely, cost per passenger increased to nearly double the expected standard of $3.34, also reflecting fewer riders and rising costs. The passengers per mile indicator of 0.5 is indicative of the short trips typical within Brawley. Table 3-34 summarizes performance indicators for the Brawley Dial-a-Ride program.

Table 3-34: Brawley Dial-a-Ride Performance Indicators

Brawley DAR	Farebox Recovery		Cost Per Trip		Passengers Per Revenue Hour		Passengers Per Revenue Mile	
	Actual	Standard	Actual	Standard	Actual	Standard	Actual	Standard
FY 2007-08	12.2%	10.0%	$7.07	$3.34	5.2	8.1	0.5	N/A
FY 2008-09	11.9%	10.0%	$6.86	$3.34	5.0	8.1	0.5	N/A
FY 2009-10	11.5%	10.0%	$7.29	$3.34	5.4	8.1	0.5	N/A
% change over 3 fiscal years	-5.7%		3.1%		3.8%		0.0%	

Calexico Dial-a-Ride

The Calexico Dial-a-Ride is the second-largest demand responsive transit service in Imperial County, carrying approximately 116 persons per day and exceeded in size only by the AIM Transit (now IVT Access) ADA program. Serving the area within the Calexico city limits, this program is currently operated on behalf of the city by the commercial operator First Transit, which also operates IV Transit. Table 3-35 shows that ridership has dropped over the three-year period, but is now rebounding, having increased over 15 percent between FY 2008-09 and FY 2009-10. Operating costs have increased 20 percent over the full three-year period while fare revenue has dropped, reflecting decreases in ridership. The interaction of these factors contributes to an increase of 25.8 percent in the subsidy per trip. Vehicle hours were reduced for the past two years in order to address the decreased available tax base. Despite these trends, the revenue miles increased year-over-year, suggesting longer trips.

Table 3-35: Calexico Dial-a-Ride Operating Statistics

Calexico DAR	Ridership	Operating Cost	Subsidy	Fare Revenue	Revenue Hours	Revenue Miles
FY 2007-08	45,607	$278,740	$239,510	$39,230	8,630	88,363
FY 2008-09	36,012	$324,772	$297,815	$26,957	7,765	81,876
FY 2009-10	41,601	$334,622	$301,232	$33,390	7,759	96,124
% change over 3 years	-8.8%	20.0%	25.8%	-14.9%	-10.1%	8.8%

Performance indicators for the Calexico Dial-a-Ride are presented in Table 3-36 below. The service has realized a significant drop in its farebox recovery ratio as a consequence of declining ridership and increased operating costs. Farebox recovery declined to near eight percent in FY 2008-09, below the 10 percent standard, then rebounded to 10 percent in FY 2009-10. Cost per trip is nearly double the standard, but has improved over FY 2008-09. Productivity, in terms of passengers per revenue hour, has increased but remains well below the system's standard of 8.1 trips per hour. Passengers per revenue mile decreased slightly, perhaps reflecting a growth in ridership while revenue hours slightly decreased.

Table 3-36: Calexico Dial-a-Ride Performance Indicators

Calexico DAR	Farebox Recovery		Cost Per Trip		Passengers per Revenue Hour		Passengers per Revenue Mile	
	Actual	Standard	Actual	Standard	Actual	Standard	Actual	Standard
FY 2007-08	14.1%	10.0%	$6.11	$4.89	5.3	8.1	0.5	N/A
FY 2008-09	8.3%	10.0%	$9.02	$4.89	4.6	8.1	0.4	N/A
FY 2009-10	10.0%	10.0%	$8.04	$4.89	5.4	8.1	0.4	N/A
% change over 3 years	-29.1%		31.6%		1.9%		-16.1%	

El Centro Dial-a-Ride

The El Centro Dial-a-Ride, with approximately 90 riders per day, is among the mid-sized Imperial Valley demand responsive systems. Operating just within the city limits of El Centro, its ridership has been growing steadily over the past three years, achieving a 38.7 percent increase during this period. Costs have also risen, increasing 48 percent over this period despite city-requested reduction in total operating costs between FY 2008-09 and FY 2009-10. Fare revenues have increased in nearly equal proportion to increases in operating costs, reflecting increased ridership. Revenue hours and miles also increased, but at half the rate that expenses have. These more modest increases are likely to contribute favorably to the system's productivity. Table 3-37 below summarizes operating statistics for the El Centro Dial-a-Ride program.

Table 3-37: El Centro Dial-a-Ride Operating Statistics

El Centro	Ridership	Operating Cost	Subsidy	Fare Revenue	Revenue Hours	Revenue Miles
FY 2007-08	18,760	$131,126	$107,763	$23,363	3,418	38,028
FY 2008-09	25,681	$200,962	$173,245	$34,560	4,561	51,803
FY 2009-10	26,022	$194,382	$167,936	$34,510	4,189	45,487
% change over 3 years	38.7%	48.2%	55.8%	47.7%	22.6%	19.6%

Looking at the performance indicators in relation to these changes in costs and ridership, Table 3-38 shows that farebox recovery has remained relatively constant while cost per trip has risen almost seven percent over this three year period. Productivity in terms of passengers per hour and passengers-per-mile has increased favorably, up 12.7 percent to 6.2 passengers-per-hour, well above the 5.1 standard, and a slight increase in passengers per mile, from 0.5 to 0.6.

Table 3-38: El Centro Dial-a-Ride Performance Indicators

El Centro	Farebox Recovery		Cost Per Trip		Passengers per Revenue Hour		Passengers per Revenue Mile	
	Actual	Standard	Actual	Standard	Actual	Standard	Actual	Standard
FY 2007-08	17.8%	10.0%	$6.99	$4.63	5.5	5.1	0.5	N/A
FY 2008-09	17.2%	10.0%	$7.83	$4.63	5.6	5.1	0.5	N/A
FY 2009-10	17.8%	10.0%	$7.47	$4.63	6.2	5.1	0.6	N/A
% change over 3 years	0.0%		6.9%		12.7%		16.3%	

The growth in ridership seen in El Centro is unique in this environment. El Centro Dial-a-Ride's other indicators are also moving in a positive direction. Farebox recovery is below the standard but has not declined and increases in cost per passenger have not exceeded the rate of overall cost increases.

Imperial Dial-a-Ride

The Imperial Dial-a-Ride serves approximately 45 passengers per day. This service is unique among the city-contracted services in that it does provide some inter-city service, for trips between Imperial and El Centro for those Imperial residents whose trip purpose lies in El Centro. Table 3-39 shows that ridership has been decreasing: the number of trips taken in FY 2009-10 trips is about one-third below that of two years prior. Operating costs have dropped as well, but at the slower rate of 4.6 percent, while farebox revenue has dropped more sharply, at 22.4 percent below its FY 2007-08 level. Revenue hours decreased each year, but most significantly between FY 2008-09 and FY 2009-10 when they were reduced by 341 hours or about 6.5 hours per week. Correspondingly, vehicle service miles also decreased with less vehicle time on the road.

Table 3-39: Imperial Dial-a-Ride Operating Statistics

Imperial DAR	Ridership	Operating Cost	Subsidy	Fare Revenue	Revenue Hours	Revenue Miles
FY 2007-08	11,910	$121,708	$104,251	$17,458	2,340	36,190
FY 2008-09	10,997	$116,513	$103,751	$16,275	2,291	35,824
FY 2009-10	8,016	$116,095	$105,881	$13,541	1,950	25,279
% change over 3 years	-32.7%	-4.6%	1.6%	-22.4%	-16.7%	-30.1%

Table 3-40 presents performance indicators for the Imperial Dial-a-Ride. Notably, cost per passenger has increased by 41.7 percent from FY 2007-08 to FY 2009-10, reflecting declining ridership and increased operating costs. Farebox recovery has declined, also reflecting decreased ridership and increased costs. Passengers per mile has stayed essentially the same.

Table 3-40: Imperial Dial-a-Ride Performance Indicators

Imperial DAR	Farebox Recovery		Cost Per Trip		Passengers per Revenue Hour		Passengers per Revenue Mile	
	Actual	Standard	Actual	Standard	Actual	Standard	Actual	Standard
FY 2007-08	14.3%	10.0%	$10.22	$5.70	5.1	4.3	0.33	N/A
FY 2008-09	14.0%	10.0%	$10.59	$5.70	4.8	4.3	0.31	N/A
FY 2009-10	11.7%	10.0%	$14.48	$5.70	4.1	4.3	0.32	N/A
% change over 3 years	-18.2%		41.7%		-19.6%		-2.8%	

The performance of the Imperial Dial-a-Ride suggests the need for further structural changes to bring it into compliance with its existing standards. Ridership declines, while likely a consequence of a reduction in service hours, must be addressed to improve performance.

West Shores Dial-a-Ride

This is the smallest of the Imperial Valley demand responsive systems, providing a basic level of service to the Salton Sea communities of Torres Martinez and Vista del Mar. As seen in Table 3-41, this service has seen declining ridership, last year providing fewer than half the trips provided in the two years prior, declining to just 2,212 one-way passenger trips. Notably, revenue service hours were decreased dramatically to 800 annual hours, from almost 40 about 16 revenue hours per week. Total operating costs were reduced by more than a third, but fare revenue dropped by only 22 percent, despite the much larger decrease in ridership. This is likely due to changes in the fare structure during this period.

Table 3-41: West Shores Dial-a-Ride Operating Statistics

West Shores DAR	Ridership	Operating Cost	Subsidy	Fare Revenue	Revenue Hours	Revenue Miles
FY 2007-08	5,680	$139,290	$128,248	$5,680	2,040	47,717
FY 2008-09	4,084	$129,239	$120,026	$7,167	1,543	32,220
FY 2009-10	2,212	$89,330	$80,889	$4,424	806	17,522
% change over 3 years	-61.1%	-35.9%	-36.9%	-22.1%	-60.5%	-63.3%

Service reductions are reflected dramatically in the performance indicators below. Notably, the farebox recovery ratio has increased due to decreased revenue hours and increased fares. But with only five percent farebox recovery, it is well below the 12 percent standard. Cost per passenger has risen dramatically, by almost 65 percent, and is now almost five times the ICTC standard of $8.38 per passenger trip. Similarly, passengers per hour, is well below the minimum standard of 5.0 with only 2.7 in FY 2009-10. Table 3-42 below summarizes performance indicators for the West Shores Dial-a-Ride program.

Table 3-42: West Shores Dial-a-Ride Performance Indicators

West Shores DAR	Farebox Recovery		Cost Per Trip		Passengers per Revenue Hour		Passengers per Revenue Mile	
	Actual	Standard	Actual	Standard	Actual	Standard	Actual	Standard
FY 2007-08	4.1%	12.0%	$24.52	$8.38	2.8	5.0	0.12	N/A
FY 2008-09	5.5%	12.0%	$31.65	$8.38	2.6	5.0	0.13	N/A
FY 2009-10	5.0%	12.0%	$40.38	$8.38	2.7	5.0	0.10	N/A
% change over 3 years	22.0%		64.7%		-3.6%		-16.0%	

This service's performance, despite efforts to bring it in line with both demand and ICTC standards, indicates the likely need for a new approach to providing a lifeline mobility service for residents of the West Shores area.

4.0 SERVICE EVALUATION

This chapter provides an evaluation of both fixed route and demand response service in Imperial County. The purpose of this evaluation is to determine potential gaps, misalignments or unmet needs with the transit service provided today. This analysis, in concert with the findings of stakeholder meetings and public involvement, will serve as a basis for discussion about the proposed recommendations for the Short Range Transit Plan.

The Service Evaluation is broken out into two separate evaluations: one for fixed route transit service and one for demand response services, including Dial-a-Ride services and paratransit. The fixed route section is further broken out into three separate analyses:

1) *Route Diagnostics* – This section evaluates existing IV Transit routes in terms of four different indicators for productivity, cost effectiveness and cost efficiency. Each indicator is calculated for each of the fixed routes, and then the routes are ranked and compared to the system average.

2) *Congruency Analysis* – This section evaluates existing IV Transit fixed route service spatially, in terms of demographics (population density, etc.), land use, and major generators (employers, social services offices, shopping, etc.).

3) *Peer Analysis* – This section evaluates existing IV Transit fixed route service relative to peer agencies, generally considered to be similarly-sized agencies in California serving multi-nodal, primarily rural areas. A special focus of this analysis is provided regarding fleet ownership and utilization.

4.1 Fixed Route Service Evaluation

Following is the fixed route portion of the service evaluation, including route diagnostics, congruency analysis, and peer analysis.

4.1.1 Route Diagnostics

Route diagnostics allow a route-by-route comparison of productivity and cost and operational effectiveness indicators. This section evaluates and compares each IV Transit fixed route with respect to four different indicators: passengers per hour and passengers per mile (productivity), and cost per passenger and farebox recovery (cost/operational effectiveness). Productivity indicators measure transit consumption based on the amount of service provided, measuring how many people use one unit of service. Cost effectiveness indicators measure the amount of resources (dollars) spent to produce one unit of service. Farebox recovery shows the proportion of the cost of providing service on a route that is recovered through passenger fares on that route. Table 4-1 below summarizes the route diagnostics for IV Transit's fixed routes, using FY 2009-10 annual data provided by First Transit, the organization that operates IV Transit. Farebox recovery is not included in the table, as that indicator was evaluated based on one month's farebox revenues (October 2010), rather than a full fiscal year.

Table 4-1: IV Transit Route Diagnostics Summary

Route	Annual Passengers	Annual Revenue Hours	Annual Revenue Miles	Annual Cost	Passengers per Hour	Passengers per Mile	Cost per Passenger
50/200 El Centro-Niland	178,806	10,151	268,164	$1,074,889	17.6	0.7	$6.01
100/150 El Centro-Calexico	288,098	8,135	124,816	$861,415	35.4	2.3	$2.99
300/350 El Centro-Holtville	14,695	3,043	65,965	$322,223	4.8	0.2	$21.93
400/450 El Centro-Seeley	8,195	1,232	24,059	$130,456	6.7	0.3	$15.92
500/550 Brawley-Bombay Beach	353	129	4,127	$13,660	2.7	0.1	$38.70
600/650 Direct Service	29,533	1,449	50,608	$153,435	20.4	0.6	$5.20
800 FAST Service	1,118	128	3,544	$13,554	8.7	0.3	$12.12
IVC Express Niland	7,158	915	31,625	$96,889	7.8	0.2	$13.54
IVC Express Calexico	41,303	1,047	18,333	$110,867	39.4	2.3	$2.68
750 Blue Line	15,625	3,184	38,791	$253,765	4.9	0.4	$16.24
850 Green Line	6,156	3,182	36,683	$253,669	1.9	0.2	$41.21
TOTAL	**591,040**	**32,595**	**666,715**	**$3,284,823**	**18.1**	**0.9**	**$5.56**

Source: FY 2009-10 IV Transit Data

Passengers per Hour

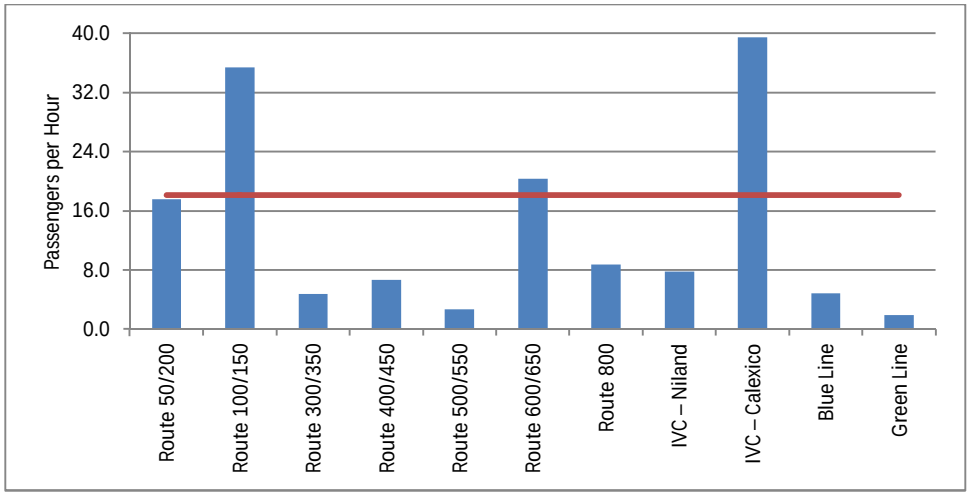
Passengers per hour measures how many passengers use each bus route per revenue hour of service provided. Table 4-2 shows passengers per hour for IV Transit route, based on FY 2009-10 annual data. It also shows the percent of the systemwide average passengers per hour (18.1, the total annual passengers on IV Transit fixed routes divided by the total annual revenue hours) and the ranking of each route (more passengers per hour is a higher rank). IVC Express – Calexico carried the greatest number of passengers per hour, followed by Route 100/150, Route 600/650 and Route 50/200. The Green Line and Route 500/550 carried the fewest passengers per hour. Figure 4-1 (below) shows passengers per hour by route. The red line represents the systemwide average.

Table 4-2: Passengers per Hour Ranking

Route	Passengers per Hour	Percent of Average	Rank
50/200 El Centro-Niland	17.6	97.1%	4
100/150 El Centro-Calexico	35.4	195.3%	2
300/350 El Centro-Holtville	4.8	26.6%	9
400/450 El Centro-Seeley	6.7	36.7%	7
500/550 Brawley-Bombay Beach	2.7	15.1%	10
600/650 Direct Service	20.4	112.4%	3
800 FAST Service	8.7	48.2%	5
IVC Express Niland	7.8	43.1%	6
IVC Express Calexico	39.4	217.6%	1
750 Blue Line	4.9	27.1%	8
850 Green Line	1.9	10.7%	11
System Average	**18.1**	**100.0%**	**-**

Source: FY 2009-10 IV Transit Data

Figure 4-1: Passengers per Hour by Route



Source: FY 2009-10 IV Transit Data

Passengers per Mile

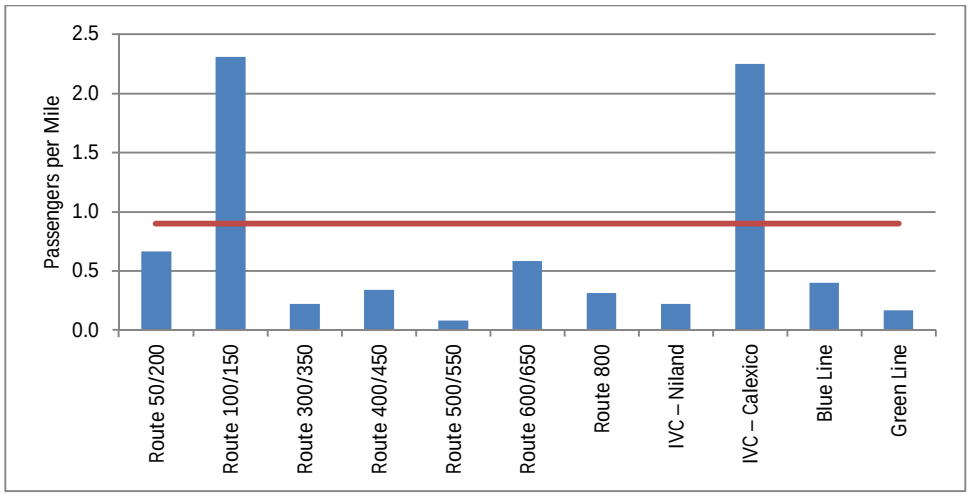
Passengers per mile measures how many passengers use each bus route per mile of passenger service provided. Table 4-3 shows passengers per mile, percent of average and rank for each IV Transit route, as well as the percent of the systemwide average passengers per mile (0.9) and ranking. Route 100/150 carried the most passengers per mile, followed by the IVC Express – Calexico, Route 50/200, and Route 600/650. Route 500/550 and the Green Line carried the fewest passengers per mile. Figure 4-2 (below) shows passengers per mile by route – the red line is the systemwide average.

Table 4-3: Passengers per Mile Ranking

Route	Passengers per Mile	Percent of Average	Rank
50/200 El Centro-Niland	0.7	74.1%	3
100/150 El Centro-Calexico	2.3	256.5%	1
300/350 El Centro-Holtville	0.2	24.8%	9
400/450 El Centro-Seeley	0.3	37.8%	6
500/550 Brawley-Bombay Beach	0.1	9.5%	11
600/650 Direct Service	0.6	64.8%	4
800 FAST Service	0.3	35.1%	7
IVC Express Niland	0.2	25.1%	8
IVC Express Calexico	2.3	250.3%	2
750 Blue Line	0.4	44.8%	5
850 Green Line	0.2	18.6%	10
System Average	**0.9**	**100.0%**	**-**

Source: FY 2009-10 IV Transit Data

Figure 4-2: Passengers per Mile by Route



Source: FY 2009-10 IV Transit Data

Cost per Passenger

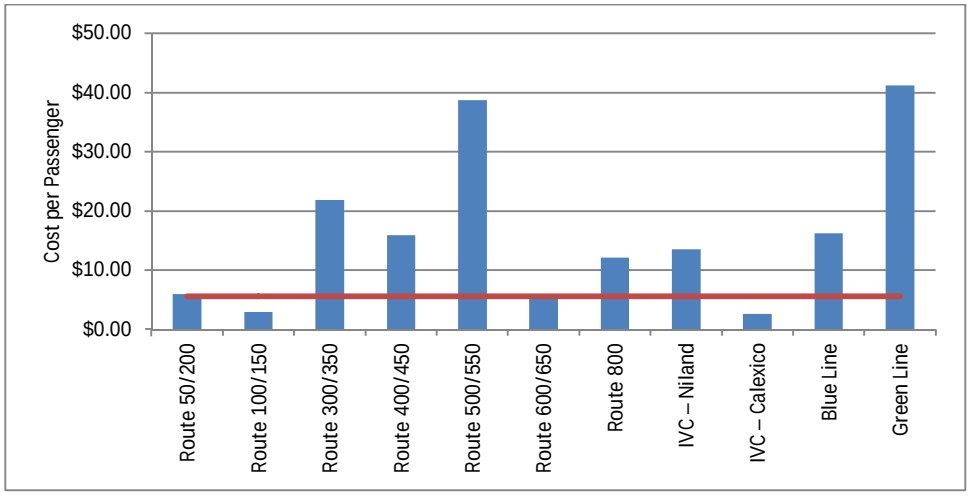
Cost per passenger measures the amount of resources (dollars) required to provide service for one passenger, given existing ridership levels. As ridership increases, cost per passenger generally decreases as the cost would be spread across more passengers. Table 4-4 shows cost per passenger, percent of average and rank for each route in the IV Transit fixed route system. The systemwide cost per passenger for FY 2009-10 was $5.56. The routes with the lowest cost per passenger were the IVC Express – Calexico, and routes 100/150, 600/650 and 50/200. The routes with the highest cost per passenger were the Green Line and Route 500/550. The highest and lowest ranked routes in regard to cost per passenger were nearly the same as in regard to the productivity indicators.

Table 4-4: Cost per Passenger Ranking

Route	Cost per Passenger	Percent of Average	Rank
50/200 El Centro-Niland	$6.01	108.2%	4
100/150 El Centro-Calexico	$2.99	53.8%	2
300/350 El Centro-Holtville	$21.93	394.5%	9
400/450 El Centro-Seeley	$15.92	286.4%	7
500/550 Brawley-Bombay Beach	$38.70	696.3%	10
600/650 Direct Service	$5.20	93.5%	3
800 FAST Service	$12.12	218.1%	5
IVC Express Niland	$13.54	243.6%	6
IVC Express Calexico	$2.68	48.3%	1
750 Blue Line	$16.24	292.2%	8
850 Green Line	$41.21	741.4%	11
System Average	**$5.56**	**100.0%**	**-**

Source: FY 2009-10 IV Transit Data

Figure 4-3: Cost per Passenger by Route



Source: FY 2009-10 IV Transit Data

Farebox Recovery

Farebox recovery measures the percent of operating cost covered by fares. It is an indicator heavily influenced by the ridership productivity of a route against its total operating cost, as well as the fare policy of the system. In contrast with the previous three indicators, farebox recovery ratios were calculated based on the month of October 2009. Farebox recovery was calculated by dividing total October 2009 farebox revenues by total October 2009 operating cost, expressed as a percentage of total operating cost. Operating cost was determined using an average cost per hour of $95.96 (the systemwide average, excluding the Blue and Green Lines, for October 2009) multiplied by total revenue hours. Farebox recovery for the Blue and Green Lines was calculated based on annual data (with a cost per hour of $79.70 for the Blue Line and $79.72 for the Green Line), as monthly data was not available for these routes. The formula was as follows:

$$Farebox\ Recovery\ Ratio = \frac{Total\ October\ 2009\ Farebox\ Revenues}{\$95.96 \times Total\ October\ 2009\ Revenue\ Hours} \times 100$$

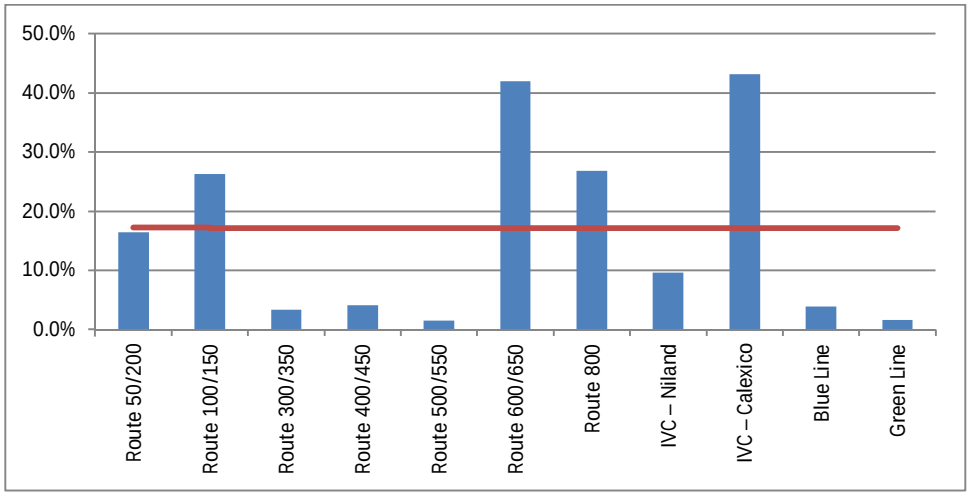
Table 4-5 shows farebox recovery ratios by route for IV Transit's fixed routes. The routes with the highest farebox recovery ratios were IVC Express – Calexico followed by Routes 600/650, 800 and 100/150. The premium fares ($2.00) charged per passenger on Routes 600/650 and 800 nudged these routes ahead of some routes that scored higher on productivity (passengers per mile and passengers per hour). The routes with the lowest farebox recovery ratios included Route 500/550 and the Green Line.

Table 4-5: Farebox Recovery Ranking

Route	Farebox Recovery	Percent of Average	Rank
50/200 El Centro-Niland	16.5%	95.9%	5
100/150 El Centro-Calexico	26.3%	152.7%	4
300/350 El Centro-Holtville	3.4%	20.0%	9
400/450 El Centro-Seeley	4.1%	24.0%	7
500/550 Brawley-Bombay Beach	1.6%	9.3%	11
600/650 Direct Service	42.0%	243.9%	2
800 FAST Service	26.9%	156.2%	3
IVC Express Niland	9.7%	56.2%	6
IVC Express Calexico	43.1%	250.8%	1
Blue Line	3.9%	22.8%	8
Green Line	1.6%	9.4%	10
System Average	**17.2%**	**100.0%**	**-**

Source: October 2009 IV Transit Data

Figure 4-4: Farebox Recovery by Route



Source: October 2009 IV Transit Data

Key Findings for Route Diagnostics for Fixed Route Services

Based on this route diagnostics analysis, the following was determined:

- Some routes consistently perform well, including the IVC Express – Calexico and Routes 100/150, 50/200, and 600/650. These routes represent the core of the system, all serving the primary corridor area between Brawley and Calexico and carrying the bulk of passengers using the system.

- Some routes consistently rank lower, carrying fewer passengers per hour/mile and costing more per passenger to provide. These routes represent policy decisions, where service is operated in order to provide transportation to parts of the county that would otherwise be inaccessible to some residents, or to residents who would otherwise not have access to transportation. While Route 500/550 performed poorly in regard to the indicators, its low cost may be more financially feasible than providing demand response service to this area.

- While the Blue and Green Lines did not score particularly high in any category, these routes allow for increased circulation within El Centro and allow the streamlining of other routes, which decreases headways, allows for an increased number of trips and promotes added productivity/ridership on the primary corridor routes. Weak performance on the Green Line may also be due to its novelty – it was introduced at the beginning of FY 2009-10, the year for which data was used.

- The express services (IVC Express – Calexico and Niland, and Routes 600/650 and 800) often perform better than the local routes, with performance on the IVC Express – Calexico ranking first in passengers per hour, cost per passenger and farebox recovery.

4.1.2 Fixed Route Congruency Analysis

This section analyzes IV Transit fixed route transit service spatially, comparing it to demographic, land use and trip generator data. As many of these maps have been presented previously, this section focuses on the conclusions that should be taken from each analysis and used in the planning process going forward.

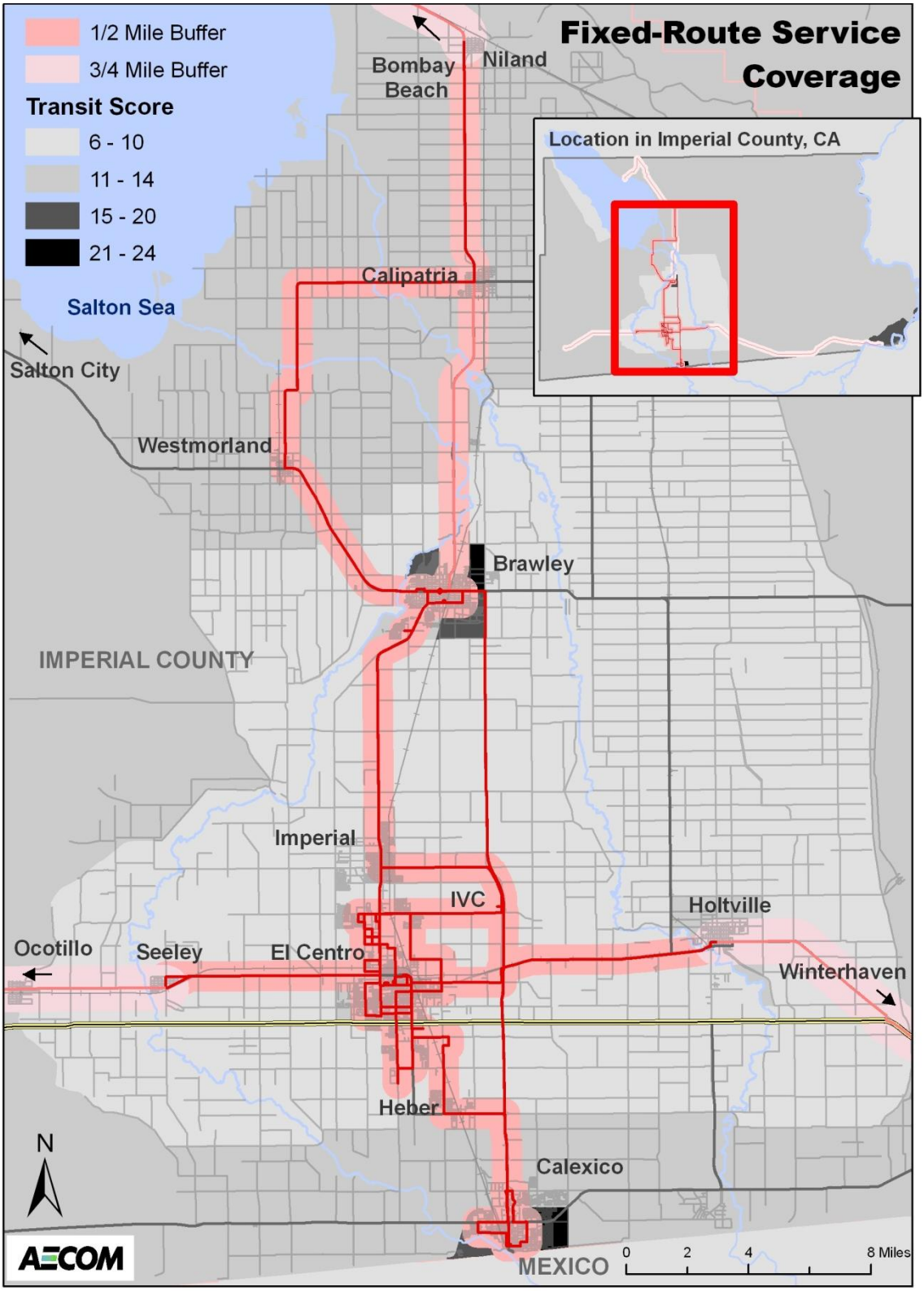
Demographic Data

Demographic data includes population, age, income, car ownership and other data that can help predict where transit service should be provided and/or where service would be successful. When considered together, this data can be used to calculate a transit score map in order to spatially analyze several transit-oriented demographic and socioeconomic characteristics at the same time. The transit score is a relative measure of how successful a fixed route transit system is expected to be in a particular region.

A transit score map was created for Imperial County based on overall population density, the density of population under the age of 18, the density of population over the age of 65, median household income, the percentage of the population living below the poverty level and the percentage of households without a car. Each of these variables has a strong correlation with transit success. Transit is most often successful in areas of high population density and in areas with high youth and senior populations, as well as in areas with low income households, high percentages of people living below the poverty level, and high percentages of households without vehicles available. Data regarding disability status was unavailable at the tract level from the 2009 American Community Survey at the time of writing, so this variable was not included.

For this analysis, all variables are divided into five classes. All of the values in each category (class) were given a score between 1 and 4, where 1 is low expectation of success and 4 is high expectation of success. Then, all of the scores were added up for each variable inside a census tract to give a total transit score. Six variables are evaluated, so a score close to 24 means that a census tract has a high expectation for transit success; a score close to 6 means that there is low expectation for transit success. These scores were mapped according to Census Tract and routes were superimposed over the scores (with coverage-area buffers) in order to see if any areas with high transit scores are not currently served by fixed route transit. This map is shown in Figure 4-5 below. Coverage area is considered to be within ½ mile of a fixed route or within ¾ mile of a deviated route.

Figure 4-5: IV Transit Fixed Route Service vs. Transit Score



Sources: 2009 American Community Survey and ICTC

Most areas of Imperial County with a high transit score, primarily the cities of Brawley, Calexico and El Centro and immediately surrounding areas, are covered by IV Transit service. Urban areas around Imperial and El Centro appear to be well-served, according to this analysis. It should be kept in mind that sometimes an entire analysis zone (i.e., census tract) may receive a certain score, when in reality only a portion of that tract exhibits the attributes determining that score (and in most cases that portion of the tract where there is population is served by IV Transit). The "unserved" areas are as follows:

- Some parts of Brawley, specifically the northern, southern and eastern areas away from the center of town. These areas are currently served by the Brawley Dial-a-Ride (demand response service), which is available to the general public and could connect riders to the fixed routes. However, the previously proposed Gold Line circulator service would serve these areas in the future in a similar fashion as the Blue and Green Lines operate currently in El Centro. The Gold Line would provide a timed transfer with the fixed routes in downtown Brawley.

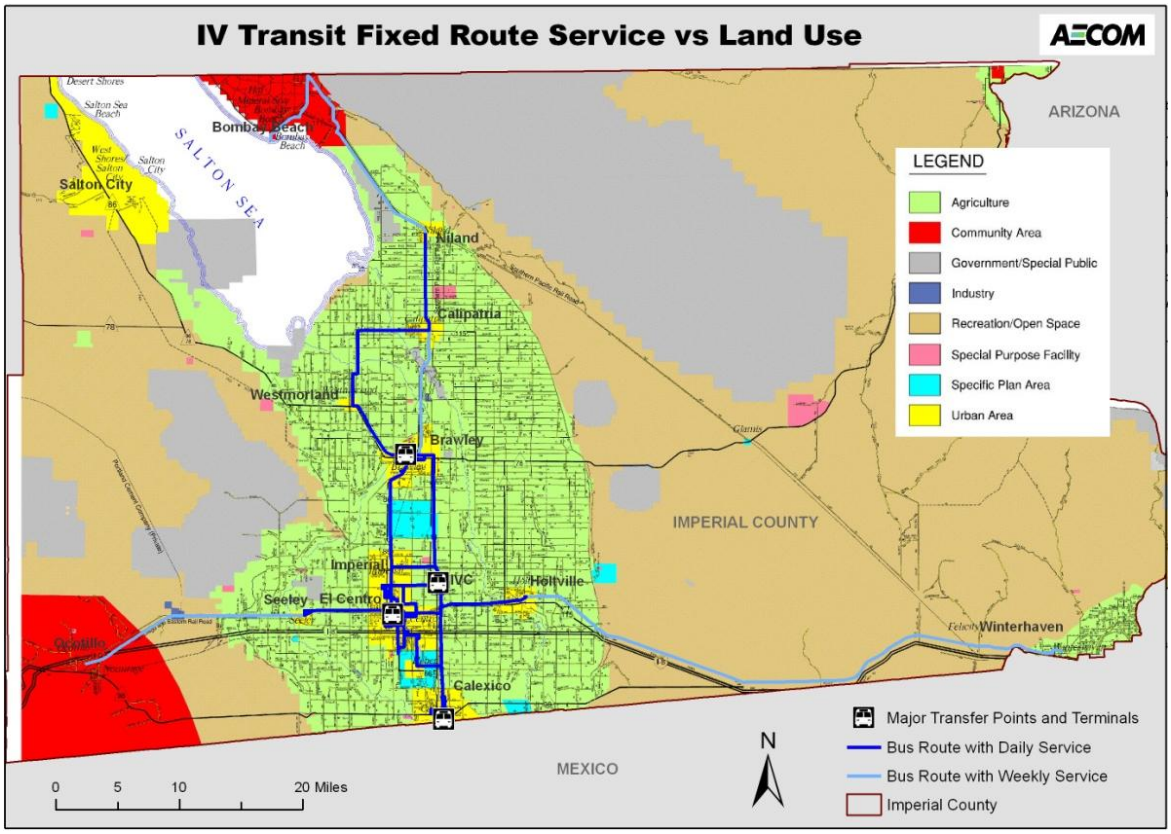
- Some parts of Calexico are not currently served by IV Transit fixed routes. As with Brawley, a circulator service (the Orange Line) has previously been proposed for Calexico, which would likely serve some or all of these areas. Currently, elderly and disabled passengers in these areas are served by the Calexico Dial-a-Ride. Non-elderly/disabled passengers do not currently have access to IV Transit service in these areas; however, private operator Calexico Transit System provides two loop routes serving parts of these areas.

- A portion of Winterhaven shows a relatively high transit score in an area that is not covered by existing transit service. This small agricultural region presents a challenge for IV Transit, as it is sparsely populated, distant from the economic and population center of the county, and likely tied more closely economically and socially to nearby Yuma, Arizona.

Land Use Data

This section discusses land use in Imperial County in regard to IV Transit's fixed route service. A land use map was obtained from Imperial County's Planning & Development Services website and was overlaid with IV Transit fixed routes. This map is shown in Figure 4-6 below. All of the urban areas are served by fixed route service with the exception of Salton City/Salton Sea Beach, which is for the most part sparsely populated and is served by the West Shores Dial-a-Ride two days per week. Fixed route service provides a web connecting the urban areas at the core of the agricultural region (irrigated area) at the center of the county. "Community areas" at Bombay Beach and Ocotillo are served by lifeline services, as is part of the small agricultural area near Winterhaven. The remainder of the county consists of open space and/or military uses. A small agricultural/community area at the northeast corner of the county likely does not warrant service.

Figure 4-6: IV Transit Fixed Route Service vs. Land Use



Sources: Imperial County Department of Planning & Development Services and ICTC

Trip Generator Data

This section looks at trip generators, including services, employment and schools, that are or are not served by the existing IV Transit fixed route network. Border crossings are also taken into account as generators, as many people cross into Imperial County from Mexico to access jobs and/or shopping.

ICTC's goals and objectives have prioritized generators that should be served by transit as follows:

1) *Health Centers* – Institutions consisting of hospitals, clinics, rehabilitation centers, mental health centers and nursing homes

2) *Social Service/Government Centers* – Public agencies, government centers, community facilities and recreational complexes

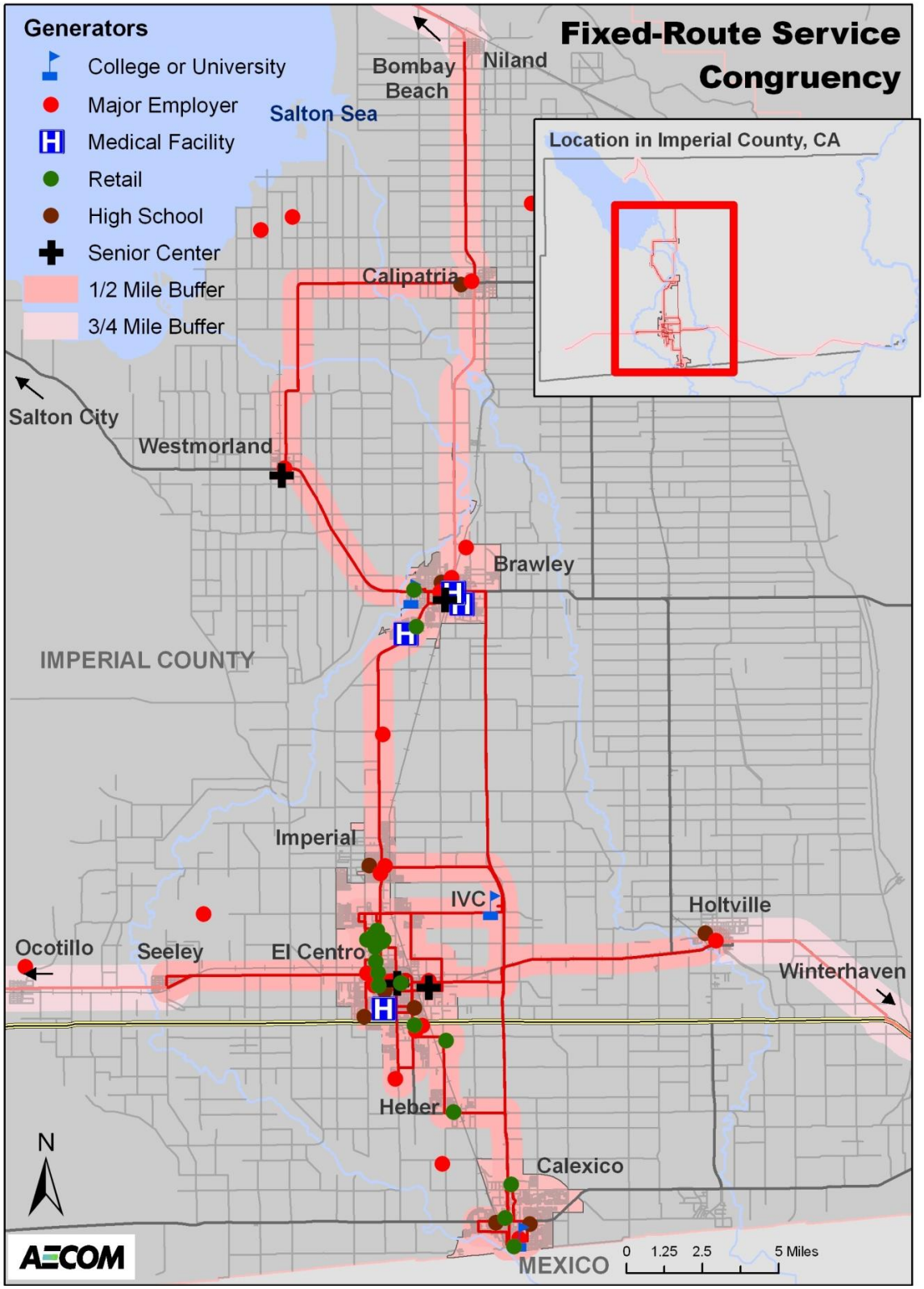
3) *Educational Facilities* – Colleges, universities, vocational schools and secondary (middle and high) schools

4) *Employers* – Employers or concentrations of employers, such as businesses or industrial parks

d. *Commercial Centers* – Economic development such as commercial centers, retail and entertainment destinations.

Figure 4-7 shows IV Transit fixed route service with regard to major generators in the county. Buffers are shown to depict the "service area", which is considered to be within ½ mile of a fixed route or within ¾ mile of a deviated route. Most major generators, including high schools, colleges and universities, major shopping destinations, government and social services offices, senior centers, hospitals and major employers are served.

Figure 4-7: IV Transit Fixed Route Service vs. Generators



Source: ICTC

The following generators are not served by existing fixed route service:

- The Calipatria and Centinela State Prisons are not served by fixed route transit; however, both facilities require guards to provide their own transportation, in case of emergency at the prison facility.
- Walmart in Brawley is not directly served by fixed-route transit; however, fixed-route service operates nearby and a stop will be added on the proposed Gold Line circulator.
- CalEnergy, located northwest of Calipatria
- Ormat Technologies, south of Heber

Key Findings for Fixed Route Congruency Analysis

Overall, IV Transit fixed route service effectively serves its market – more service is provided where demand is higher, while less service is provided where demand is lower. There are essentially two classes of routes: local and express routes serving the more dense, urbanized primary corridor zone, including service to Imperial Valley College, and less frequent routes operating smaller vehicles to the surrounding rural areas. The smallest communities, which tend to also be the most distant from El Centro, receive the least amount of service – but are still served ensuring mobility for their residents. Some overall findings from this analysis include:

- Brawley is currently only partially served by fixed route service, with the outlying areas served by the Brawley Dial-a-Ride demand response service (available to the general public). Many of these areas will likely be served if the proposed Gold Line circulator is implemented, at which time the Dial-a-Ride service would no longer need to serve the general public (as it would then represent a duplication in service).

- The Walmart in Brawley is one major generator that is not directly served by a fixed route. Again, this will likely be remedied if the Gold Line circulator is implemented.

- Calexico is only partially served by IV Transit fixed routes. Unlike Brawley, the Calexico Dial-a-Ride service is available only to senior/disabled passengers; however, the proposed Orange Line circulator would likely connect many of these currently un-served areas into the IV Transit fixed route network. Some neighborhoods that are not currently served by IV Transit fixed routes have access to service by private operator Calexico Transit System.

- Crowded conditions on IV Transit routes that serve Calexico suggest that there may be more demand for service both within Calexico and between Calexico and other primary corridor destinations.

4.1.3 Fixed Route Peer Analysis

This section presents a peer group and trend analysis, comparing Imperial Valley Transit's fixed route system to similar systems. Data for the peer analysis was obtained from 2009 National Transit Database (NTD) reports in order to maximize consistency in reporting from agency to agency. Follow-up telephone interviews were also conducted in order to obtain more detailed information regarding fleet ownership.

Peer Group Selection

Three California peer systems were selected for this analysis, based on geography and system characteristics. Smaller transit systems across the state were considered, with a preference given to those serving multi-nodal communities, generally those containing several small urban centers surrounded by larger rural areas. Criteria used in selecting peer organizations also included annual unlinked trips (ridership), fleet size and ownership. As many smaller transit agencies do not report to NTD, finding appropriately-sized peers for which data is available was a key challenge in peer selection. Agencies that do not complete annual NTD reporting (are not included in the database) were eliminated, including Siskiyou County/Yreka's STAGE, the Mendocino Transit Authority, Barstow Area Transit and the Morongo Basin Transit Authority. The following systems were selected for use in the peer analysis:

- Merced County Transit, The Bus (Merced, California)
- Kings County Area Public Transit Agency, KART (Hanford, California)
- Redding Area Bus Authority, RABA (Redding, California)

System Indicator Development

This section provides an overview of the peer systems and analysis. Table 4-6 below shows key characteristics of each of the peer systems, including service area population, revenue miles and hours, peak vehicles, expenses, revenues and ridership.

Table 4-6: Peer Group Summary

System	Service Area Population	Vehicle Revenue Miles	Vehicle Revenue Hours	Peak Vehicles	Operating Expenses	Farebox Revenue	Unlinked Trips
Imperial Valley Transit, IV Transit (El Centro, CA)	164,421	650,054	31,958	14	$3,472,547	$481,058	556,433
Merced County Transit, The Bus (Merced, CA)	120,000	1,466,624	81,414	26	$5,508,909	$809,039	1,189,281
Kings County Area Public Transit Agency, KART (Hanford, CA)	51,965	756,514	57,384	16	$2,890,988	$595,659	911,059
Redding Area Bus Authority, RABA (Redding, CA)	117,478	690,704	41,535	12	$3,369,619	$594,396	821,731

Source: 2009 National Transit Database

The peer analysis compares IV Transit's fixed route system with the fixed route systems of each of the peer organizations. The following indicators were used to compare the performance of IV Transit service with peers:

- System size indicators – these include overall size and performance of the IV Transit fixed route services in relation to peer systems. Indicators include service area population, revenue miles and hours, peak vehicles and ridership (unlinked trips).

- Cost and operational efficiency indicators – these indicators measure the resources expended compared to the amount of service produced, addressing how well the expenditures made on labor, fuel and supplies are used as compared to other systems. Indicators include cost per revenue mile and cost per revenue hour.

- Cost and operational effectiveness indicators – these indicators measure the service provided based on the resources expended. Indicators include cost per passenger and farebox recovery.

- Service effectiveness indicators – these indicators measure transit consumption based on service output. Indicators include passengers per revenue mile and passengers per revenue hour.

Each indicator is presented as follows:

Peer Group Performance	Best Value
	Worst Value
	Average Value
IV Transit Performance	Value
	Percent Difference (from peer group average)
	Rank Within Group (where "1" is best)

Peer Group and Trend Analysis

This section evaluates IV Transit's fixed route service versus that of the peer organizations with regard to each specific indicator mentioned above. Table 4-7 compares IV Transit to its three peers (listed above) in terms of service area population, revenue hours and miles, peak vehicles and unlinked trips (ridership). Overall, IV Transit serves the largest population but operates the fewest revenue hours and miles for the fewest boardings of the peer organizations. IV Transit operates more vehicles in maximum service than one of its peers (i.e., Kings County).

Table 4-7: System Size Indicators

	Service Area Population	Revenue Hours	Revenue Miles	Peak Vehicles	Unlinked Trips
Greatest	164,421	81,414	1,466,625	26	1,189,281
Least	51,965	31,958	650,054	12	556,433
Group Average	113,466	53,073	890,974	17	869,626
IV Transit	*164,421*	*31,958*	*650,054*	*14*	*556,433*
Difference	+44.9%	-39.8%	-27.0%	-17.6%	-36.0%
Rank	1 of 4	4 of 4	4 of 4	3 of 4	4 of 4

Source: 2009 National Transit Database

While IV Transit has the most populous service area of the four transit agencies included in this analysis according to the National Transit Database, it is important to consider that each of these agencies effectively serves the population of one county. When county population, rather than service area population, is taken into consideration, Imperial County falls just 10 percent below average for the peer group (based on 2009 American Community Survey estimates), and ranks third out of the four counties.

Cost per revenue mile and cost per revenue hour were both very high for IV Transit, higher than all three peers, reflecting a very high cost of providing transit service in Imperial County. Cost per revenue hour was more than double that of the geographically closest peer, KART. Table 4-8 shows the analysis of cost and operational efficiency indicators.

Table 4-8: Cost and Operational Efficiency Indicators

	Cost per Revenue Mile	Cost per Revenue Hour
Best	$3.76	$50.38
Worst	$5.34	$108.66
Group Average	$4.28	$71.80
IV Transit	*$5.34*	*$108.66*
Difference	+24.8%	+51.3%
Rank	4 of 4	4 of 4

Source: 2009 National Transit Database

As with cost and operational efficiency, IV Transit scored last in terms of both cost and operational effectiveness indicators as well, with the highest cost per passenger and lowest farebox recovery ratio of the peer group. This again reflects the high cost of providing transit service in the county.

Table 4-9: Cost and Operational Effectiveness Indicators

	Cost per Passenger	Farebox Recovery
Best	$3.17	20.6%
Worst	$6.24	13.9%
Group Average	$4.38	16.3%
IV Transit	*$6.24*	*13.9%*
Difference	+42.5%	-14.7%
Rank	4 of 4	4 of 4

Source: 2009 National Transit Database

Service effectiveness indicators show the productivity, or number of passengers per unit of service, of a system's fixed route network. In terms of passenger per revenue mile, IV Transit ranked third out of the four systems, with 0.9, ahead of The Bus. In terms of passengers per revenue hour, IV Transit ranked second, ahead of The Bus and KART but behind RABA.

Table 4-10: Service Effectiveness Indicators

	Passengers per Revenue Mile	Passengers per Revenue Hour
Best	1.2	19.8
Worst	0.8	14.6
Group Average	1.0	16.4
IV Transit	*0.9*	*17.4*
Difference	-12.3%	+6.3%
Rank	3 of 4	2 of 4

Source: 2009 National Transit Database

Table 4-11 shows changes over time for each indicator described above from 2007 to 2009, reflecting trends occurring within IV Transit and peer systems. Data for years prior to 2007 was not available from NTD for all agencies.

Regarding system size, service area population, revenue hours and miles and peak vehicles changed very little from 2007 to 2009 for the peer systems, while population increased slightly (and revenue hours decreased) for IV Transit. Operating expenses increased for each of the four agencies, but slightly below average for IV Transit at 11.4 percent. Ridership and farebox revenue both increased substantially for IV Transit – with 45.3 and 44.4 percent increases, respectively – eclipsing more modest increases for the peer group.

Most agencies experienced increases in cost per mile and cost per hour from 2007 to 2009 (with the exception of KART for which both decreased); however, even given IV Transit's already higher-than-average cost of providing service, both cost per mile and cost per hour continued to increase more rapidly for IV Transit than for the peer group as a whole.

IV Transit made excellent progress with regard to cost and operational effectiveness. While the agency continues to have the highest cost per passenger and lowest farebox recovery of the peer group, it also showed the most substantial improvement in both from 2007 to 2009. Cost per passenger actually decreased, even while overall operating cost increased, while farebox recovery increased, both reflecting substantial increases in ridership. Some other agencies experienced decreased cost per passenger (KART and RABA) and increased farebox recovery (KART and The Bus), but to a lesser degree than IV Transit.

IV Transit also performed very well in terms of service effectiveness, showing substantial increases in both passengers per revenue hour and passengers per revenue mile from 2007 to 2009. This reflects extensive growth in ridership while revenue miles and hours have remained relatively constant. For the peers, both The Bus and KART showed declining passengers per mile and hour, while RABA showed lesser increases than IV Transit.

Table 4-11: IV Transit and Peer Trends

	IV Transit			Peer Average		
	2007	2009	Change	2007	2009	Change
Service Area Population	150,114	164,421	9.5%	115,259	113,466	-1.6%
Vehicle Revenue Miles	646,601	650,054	0.5%	851,440	890,974	4.6%
Vehicle Revenue Hours*	38,310	31,958	-16.6%	49,970	53,073	6.2%
Peak Vehicles	14	14	0%	18	17	-2.9%
Operating Expenses	$3,115,839	$3,472,547	11.4%	$3,394,585	$3,810,516	12.3%
Farebox Revenue	$333,175	$481,058	44.4%	$513,952	$620,038	20.6%
Ridership (Unlinked Trips)	382,899	556,433	45.3%	747,109	869,626	16.4%
Cost and Operational Efficiency						
Cost per Revenue Mile	$4.82	$5.34	10.9%	$3.99	$4.28	7.3%
Cost per Revenue Hour*	$81.33	$108.66	33.6%	$67.93	$71.80	5.7%
Cost and Operational Effectiveness						
Cost per Passenger	$8.14	$6.24	-23.3%	$4.54	$4.38	-3.6%
Farebox Recovery	10.7%	13.9%	29.6%	15.1%	16.3%	7.5%
Service Effectiveness						
Passengers per Revenue Mile	0.6	0.9	44.5%	0.9	1.0	11.2%
Passengers per Revenue Hour*	10.0	17.4	74.2%	15.0	16.4	9.6%

Sources: 2007 and 2009 National Transit Database

*****_2007 revenue hours for IV transit were overstated in the National Transit Database (76,619). That amount was halved for the purpose of this analysis, more closely reflecting data obtained from IV Transit._

Comparative Analysis of Vehicle/Facility Ownership

One important aspect of the differing methods by which public transportation agencies may provide their services is the manner in which those services are operated. Many larger transit agencies "directly operate" their systems; this means that they own all of the system's assets and the operators are employed directly by the transit agency. In these cases, the transit agency itself is typically a larger and more complex entity than it would otherwise need to be.

However, many other transit systems – including some relatively large agencies – choose instead to "purchase" the transportation services they oversee from transportation operators that may range from non-profit entities to large multi-national corporations. These operations are typically purchased via contracts between the agency and the operator that can vary in terms of their duration.

The Imperial County Transportation Commission (ICTC) – in a manner similar to its peer systems – contracts with operators for both its fixed route and demand responsive services. Throughout the transit industry, demand responsive operations are typically contracted out, even by the largest transit systems. The method of providing fixed route service typically sees more variation throughout the transit industry; nonetheless, even when operations are contracted out, options regarding the manner in which the vehicles utilized in the transit service are owned, serviced and stored are still available. As can be seen in Table 4-12, the ICTC's fixed route peer systems all contract for the operation of their fixed route service and all also own their own vehicles. Only the ICTC fleet is owned by the contractor (i.e., First Transit).

Table 4-12: Vehicle Ownership Summary

System	Ridership	Directly Operated or Purchased Transportation	Fleet Size by Type of Fuel	Fleet Ownership*	Vehicles Give, Sold, Loaned or Leased
Imperial Valley Transit (El Centro, CA)	556,433	Purchased Transportation (First Transit)	3 Gasoline 18 Diesel	18 Owned by First Transit 3 Leased under purchase agreement	[blank]
Merced County Transit, The Bus (Merced, CA)	1,189,281	Purchased Transportation (Laidlaw/First Transit)	11 Gasoline 26 Diesel 13 CNG	50 Owned by MCT	Yes
Kings County Area Public Transit Agency, KART (Hanford, CA)	911,059	Purchased Transportation (MV Transportation, Inc.)	12 Diesel 10 CNG	22 Owned by KART	Yes
Redding Area Bus Authority, RABA (Redding, CA)	821,731	Purchased Transportation (Veolia Transportation Services, Inc.)	2 Gasoline 16 Diesel	18 Owned by RABA	Yes

Sources: 2009 National Transit Database and Operators

In this portion of the report, we will compare the vehicle and facility ownership practices of the ICTC's fixed route peers with the ICTC's practices, and determine the advantages and disadvantages of each method.

For the purposes of gathering comparative data, the study team contacted staff at the peer fixed route transit agencies. These were as follows:

- At the Redding Area Bus Authority (RABA), the study team spoke with Zach Bonnin.
- At the Kings County Area Public Transit Agency (KART), the study team spoke with Ron Hughes and Viviana Alapisco.
- At Merced County Transit (The Bus), the study team spoke with Marjie Kirn.

Fleet Ownership

Every one of the staff members at the fixed route peer systems consistently stated that having their agency own the bus fleet is significantly preferable to having the contractor own the bus fleet. However, quantifying this preference proved very difficult, although the peer system a variety of reasons were given:

- In terms of funding the purchase of the buses, the peers stated that it is relatively "easy" to tap into federal funding programs (e.g., 5307 funding, American Reinvestment and Recovery Act funding, etc.), and that by doing so it is also easier to generate a local

match for fleet needs, as leveraging federal funding allows local funding to purchase a comparatively greater number of buses.

- If the operator owns the buses, the cost of purchasing/depreciation of the vehicles is "built in" to the hourly service cost the operator contracts for. This has the effect of then making the transit agency pay for its capital needs (i.e., the fleet) via its operating costs (i.e., the hourly cost of service provided).

- The cost of a typical transit bus used in fixed route service is currently approximately $460,000, and the cost of the typical demand responsive "cutaway" body-on-chassis conversion vehicle is approximately $70,000. Given that contracts are typically structured over approximately 3 years, if the fleet is owned by the contractor then the costs of amortizing the vehicles will be apparent in the hourly cost.

Facility Ownership

Every staff member interviewed at the fixed route peer systems was also consistent in stating that they felt the most important element in keeping the cost per service hour in their contracts low was the fact that they own their own vehicle maintenance and storage facilities. They all indicated that they felt this was more pertinent to lowering their operating costs than owning their own fleet.

Similar to ownership of the buses, if a contractor has to either build, buy or rent a vehicle maintenance and storage facility, then the cost of that facility is typically passed on to the funding agency in the contracted cost for each hour of service. This again has the effect of having the transit agency utilize its operating dollars for capital costs.

The staff at the fixed route peer systems all felt that – when taken together – the advantages of owning both the fleet and the vehicle maintenance and storage facility clearly outweighed any possible disadvantages. The only possible disadvantages cited were the bureaucratic processes necessary to procure funding for the fleet, and to build a facility. However, the advantages are significant, and include:

- Leveraging federal and state levels of funding for capital improvements (i.e., both the fleet and the maintenance/storage facility);
- Lowering the operating cost (i.e., the contracted cost per service hour) as capital expenditures are maintained in their own funding stream;
- Maximizing the number of possible bidders to operate the system, especially with agency ownership of the facility, as more than local firms who already own a facility will bid;

- Giving the transit agency more flexibility at any point in the duration of any contract should it decide that – for whatever reason – the contractor is not performing satisfactorily, thus allowing the agency to more easily engage a new operator;
- Improving the vehicle maintenance and storage facility on an ongoing and regular basis as any improvements made to the facility can be more easily accepted by the community as the facility will be owned by the transit agency.

Transition Issue

Should an agency such as ICTC decide to transition into a contract where the agency owns both its fleet and its maintenance and storage facility, the transition period can be difficult, as the existing contractor and the agency might enter into a "lease/purchase clause" in the contract so that the agency will begin to own its fleet over time. However, during this time, comparative bids between potential operators would be difficult to compare on an "apples-to-apples" basis.

Quantifying the Difference

Overall, as was previously mentioned, the staff members interviewed at the peer systems all felt that while they would support transitioning to a model whereby the ICTC owned both its fleet and its maintenance and storage facility, quantifying the differences between this method and having a contractor own these assets would be difficult without actually soliciting different bids from various operators for the same or similar services.

However, as part of this analysis (and as shown in Table 4-12), it became apparent to the study team that the difference in the cost per revenue hour between Imperial Valley Transit (IVT) and the average of its peers – about **$109.00** per revenue hour for IVT as opposed to an average of about **$72.00** per revenue hour for the peer group – could at least partially be attributed to the fact that ICTC does not own its own fleet or facility, and thus pays for the contractor's fleet and facility costs via its operating contract and agreement. Thus, it can safely be stated that at least some portion of this *51 percent difference* in the cost per revenue hour between IVT and its fixed route peer group is attributable to the fact that IVT does not own its own fleet or facility.

In addition, several of the staff at the fixed route peers stated that they felt when the fleet ownership and vehicle maintenance and storage facility issues were taken together, an *approximate 50 percent difference* in operating costs per revenue hour is not inconceivable between a system that owns these assets and one that does not.

While eventually owning its own bus fleet and vehicle maintenance and storage facility may help reduce IVT's cost per revenue hour, it should be noted that owning these assets cannot guarantee a reduction in this cost category. Nonetheless, the staff members interviewed at the fixed route peer systems all stated that – once a transition phase is completed and the infrastructure assets are owned by the transit agency – they would fully expect to see the costs per revenue hour be reduced and the pool of potential bidders for operating the service

enlarged. This is an important consideration given the financial condition of the Local Transportation Fund (LTF).

Key Findings for Fixed Route Peer Analysis

Compared to its peers, IV Transit faces very high costs to operate service. However, it performs well in terms of the number of passengers per unit of service provided and has shown improvement in several areas. Key findings from the peer analysis include:

- IV Transit provides less service and also serves fewer boarding passengers than agencies in similarly-sized environments.
- IV Transit has substantially increased productivity in terms of both passengers per revenue mile and passengers per revenue hour.
- The cost of providing transit service in Imperial County is much higher than in other counties in California and is increasing at a much faster rate.
- IV Transit has managed to reduce its cost per passenger substantially while increasing farebox recovery, despite the increased cost of providing service. This is largely due to rapid growth in ridership while service levels have remained constant.
- For all three peer systems, the transit agency owns the fleet and maintenance facility used by the operator. This is likely a major contributive factor to IV Transit's high hourly costs.

4.2 Demand Response Service Evaluation

This section presents an evaluation of Imperial County's seven demand response services. This is provided in relation to existing service guidelines and selected performance measures. This section examines utilization information in relation to no-show, trip cancellation and trip denial data. It considers comparisons to generally comparable peer systems, and in relation to nationally published rural demand response system criteria. Summary themes are identified, suggesting areas where recommendations can be developed in subsequent stages of the study.

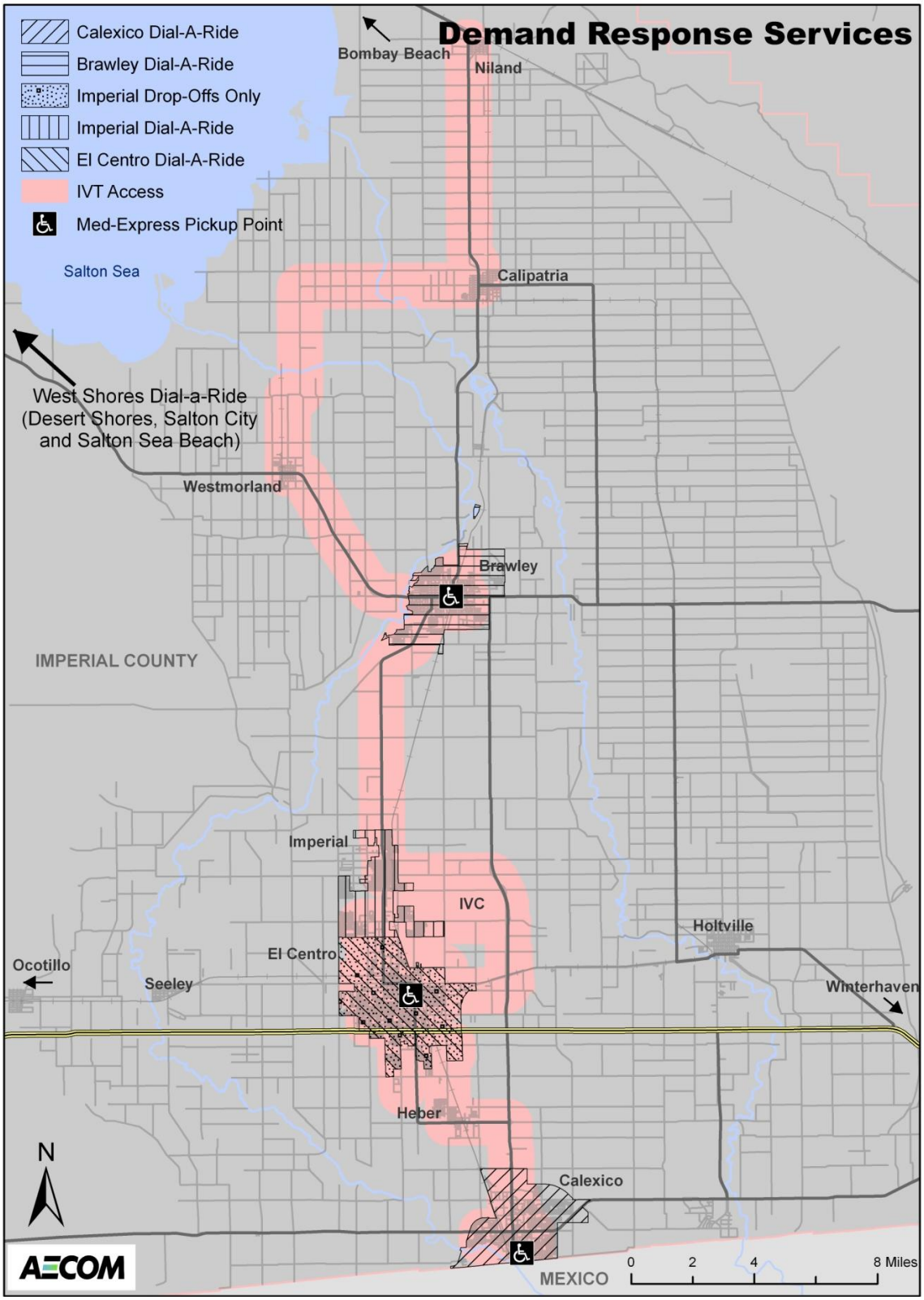
4.2.1 Demand Response Service Areas

Figure 4-8 following depicts the service areas for the Imperial County's demand response services. These include the following:

- AIM Transit (now IVT Access) - within ¾ mile of IV Transit fixed-routes
- Med-Express – three pick-up points in Imperial County for travel to medical facilities within San Diego County
- Brawley Dial-a-Ride – trips originating and ending within Brawley city limits
- Calexico Dial-a-Ride – trips originating and ending within Calexico city limits
- Imperial Dial-a-Ride – trips originating within Imperial city limits but drop-offs and the return trip may be within El Centro city limits
- El Centro Dial-a-Ride – trips originating and ending within El Centro
- West Shores Dial-a-Ride – trips originating and ending within the Salton Sea area, including Vista del Mar and Torres Martinez.

Notably, not all of this information is readily available to the public, with limited brochures or flyers available with websites that cover only three of the seven services: www.ivtaccess.com covers the IVT Access service (www.aimtransit.org formerly covered AIM Transit and Med-Express), www.brawleydialaride.com covers the Brawley Dial-a-Ride, and information regarding the Calexico Dial-a-Ride can be found at www.calexico.ca.gov. ARC – Imperial Valley's website mentions its four services, including Med-Express and the Imperial, El Centro and West Shores Dial-a-Rides, but does not provide any information about them. It can be difficult for a new rider or a prospective user of a dial-a-ride service to determine how to access these services, who is eligible, or where they travel, other than by word-of-mouth. Additionally, the websites are all standalone and are not linked to one another, so residents may know about one service, but not be aware that there may be other services available to them.

Figure 4-8: Demand Response Service Areas



4.2.2 Demand Response Performance Analysis by Service

This subsection presents selected contract expectations and performance history for each of the county's public demand response services.

AIM Transit/IVT Access

AIM Transit, now IVT Access, is the county's ADA complementary paratransit service, proscribed by contract to serve the ¾ mile corridor around IV Transit routes. Per the contract between ICTC (then IVAG) and AIM Transit's provider, the contractor is responsible for hiring and training of drivers, the provision of on-site supervisory personnel, the provision and maintenance of vehicles, and all customer service responsibilities including the scheduling and dispatching of trips. Key performance data to be attained is called out in the agreement (and will be discussed subsequently in this chapter), with provisions for liquidated damages if minimum performance standards are not met.

Service Levels Set Forth in the Contract

Summarized here are the levels of service called for by the original agreement. These drive the availability of ADA services and establish the baseline from which the contractor must meet all ADA obligations. Table 4-13 below presents the service level impacts that adjusted upwards in September 2009 to reflect increasing service demand. In June 2010, service levels were adjusted downward to reflect the decreased funding base available to ICTC and its contractors due decreased sales tax revenues impacting the Local Transportation Fund (LTF).

Table 4-13: AIM Transit Contractual Demand Response Service Allocation Levels and Amendments

	Original Term	Amendment #1 Sept. 1, 2009		Amendment #2 June 23, 2010	
Service Allocation Element	**FY 2006-07**	**FY 2009-10**	**FY 2010-11**	**FY 2009-10**	**FY 2010-11**
Monday to Fridays – 6:00 AM-6:00 PM	60 hours/ weekday	72 hours/ weekday	77 hours/ weekday	72 hours/ weekday	66 hours/ weekday
Monday to Fridays – 6:00 PM-10:00 PM	8 hours/ weekday	16 hours/ weekday	24 hours/ weekday	16 hours/ weekday	8 hours/ weekday
Saturday – 6:00 AM-6:00 PM	24 hours/ Saturday	24 hours/ Saturday	24 hours/ Saturday	24 hours/ Saturday	24 hours/ Saturday
Total Annual Weekdays	252	252	252	252	252
Total Annual Saturdays	52	52	52	52	50
Est. Annual Revenue Service Hours	18,384	20,988	22,500	20,988	19,800
Est. Annual Service Miles	300,000	N/A	300,000	N/A	300,000
Total Maximum # Buses	6	6	7	6	6
Total Non-operating Holidays	9	9	9	9	9

One-Way Passenger Trips

AIM Transit provided approximately 120 rides per day, the largest number among Imperial County demand response systems. Figure 4-9 shows total one-way passenger trips per six-month period over the past five fiscal years. The overall trend in ridership is increasing, from a low of 14,998 trips in the first reporting period below to 17,978 in the latter half of 2009, an increase of 19.8 percent. Some of the variation in trips between six-month periods can be explained by seasonal weather differences and other factors to be explored later in this study.

Figure 4-9: AIM Transit One-Way Passenger Trips (Six-Month Intervals)

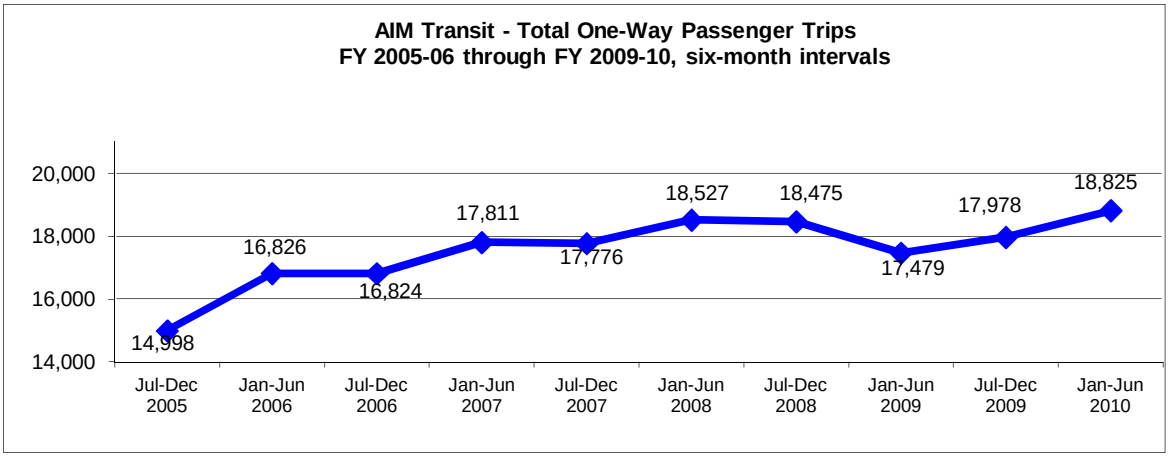
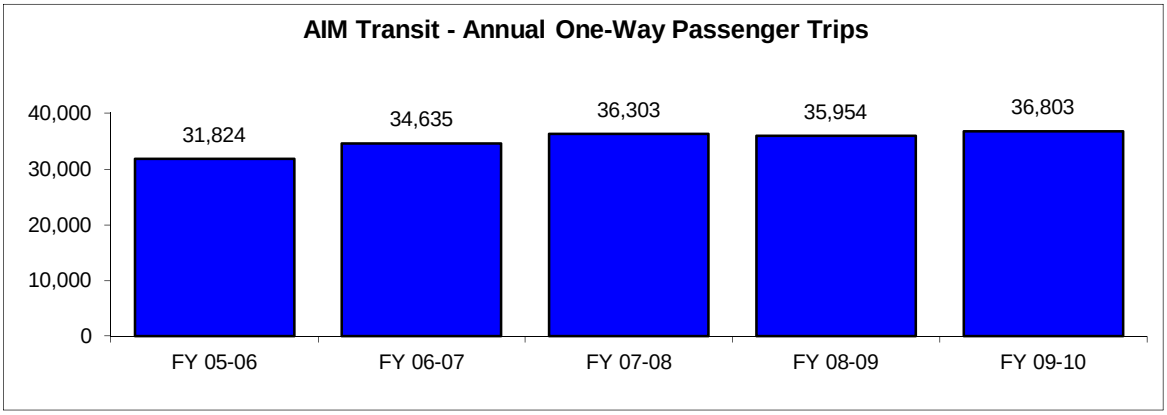


Figure 4-10 shows annual trip rates, increasing steadily between FY 2005-06 and FY 2007-08, dropping slightly during FY 2008-09, and then reaching the highest level to date with the FY 2009-10 total of 36,803 AIM Transit one-way boardings. The FY 2009-10 total represents an increase of 15.6 percent over four years, beginning in FY 2005-06.

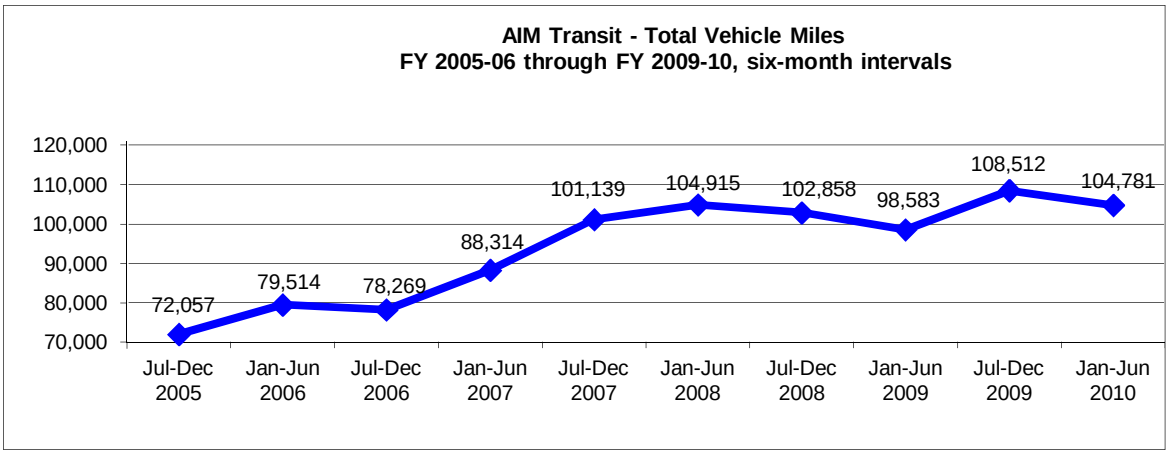
Figure 4-10: AIM Transit One-Way Passenger Trips (Annual)



Vehicle Miles

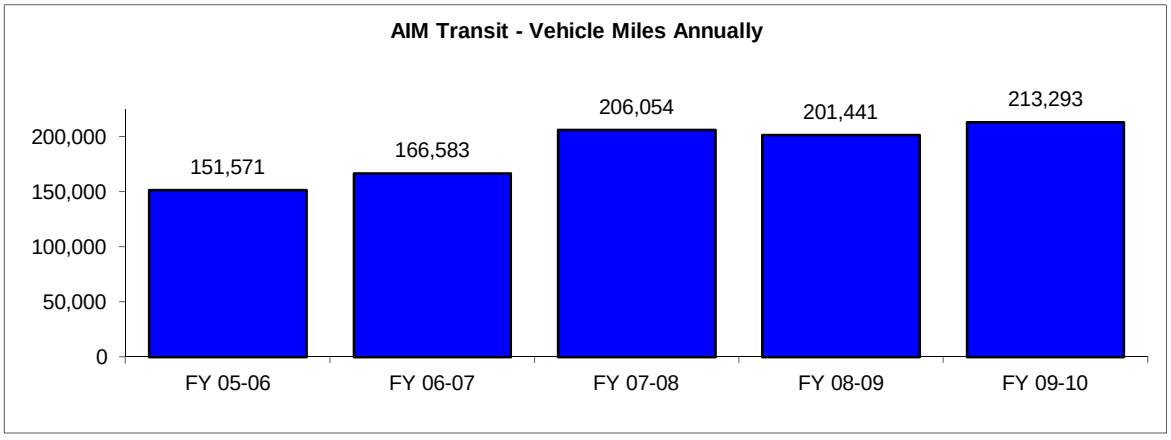
Figure 4-11 below reflects the vehicle mile information provided for the AIM Transit paratransit service, showing slow growth levels in the first eighteen months of this five-year period and then beginning to grow steadily over the next several years. Total miles began dropping after a peak during the first six months of 2008, picking up again in the second half of 2009.

Figure 4-11: AIM Transit Vehicle Miles (Six-Month Intervals)



Considering annual totals, Figure 4-12 below depicts a similar pattern of slower growth during the first two years of the five year period, increasing to 206,054 in FY 2007-08, dropping slightly in 2008-09, then climbing to 213,293 in 2009-10. This represents 40 percent growth above the FY 2005-06 level of 151,571 miles, reflecting increases in both the quantities of trips provided and in the length of individual trips.

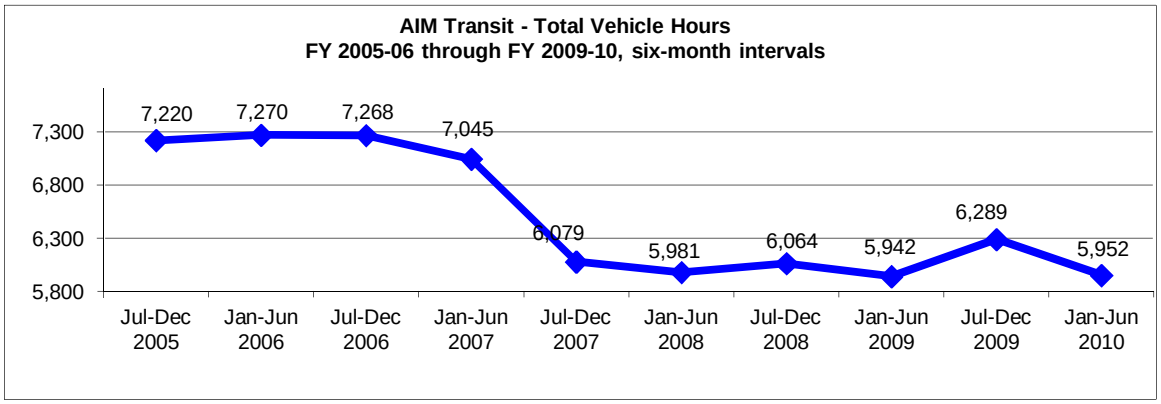
Figure 4-12: AIM Transit Vehicle Miles (Annual)



Vehicle Hours

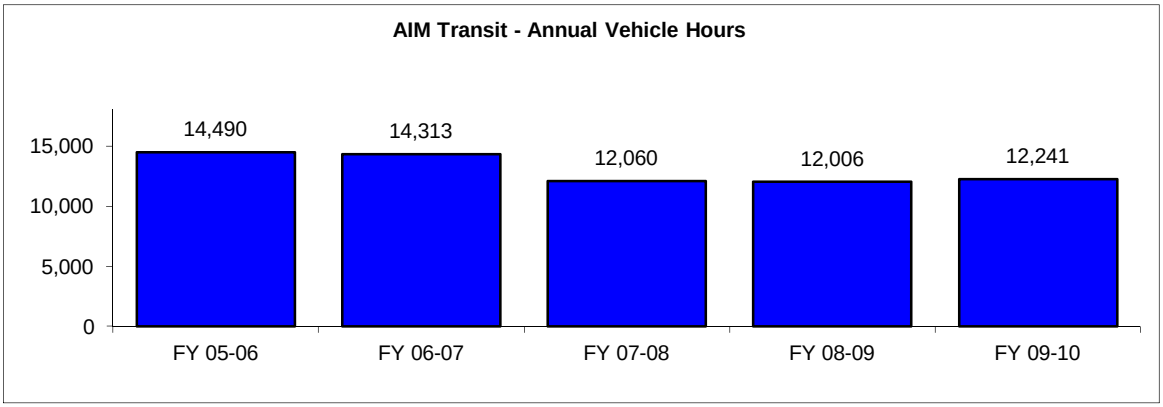
The history of AIM Transit's vehicle hour provision is displayed in Figure 4-13. This reflects, in part, a new orientation to vehicle hours that began with the FY 2006-07 service agreement between ICTC (then IVAG) and ARC-Imperial County, which established specific service levels by day-of-week and time-of-day. That agreement went into effect in October 2006. Vehicle hours immediately began declining, dropping over the subsequent twelve months to approximately 5,900 to 6,000 vehicle hours per six-month period through 2008 and 2009. They climbed again briefly in the first six months of 2009, in part due to the September 2009 contract amendment that increased vehicle hour levels, and were again adjusted downwards by the June 2010 amendment.

Figure 4-13: AIM Transit Vehicle Hours (Six-Month Intervals)



The annual vehicle hour totals, presented in Figure 4-14 below, show lower annual totals in FY 2007-08 and FY 2008-09 of approximately 12,000 annual vehicle hours, climbing slightly during FY 2009-10 to 12,241 hours but not to the 14,000+ hours that were previously provided in FY 2005-06 and FY 2006-07 years.

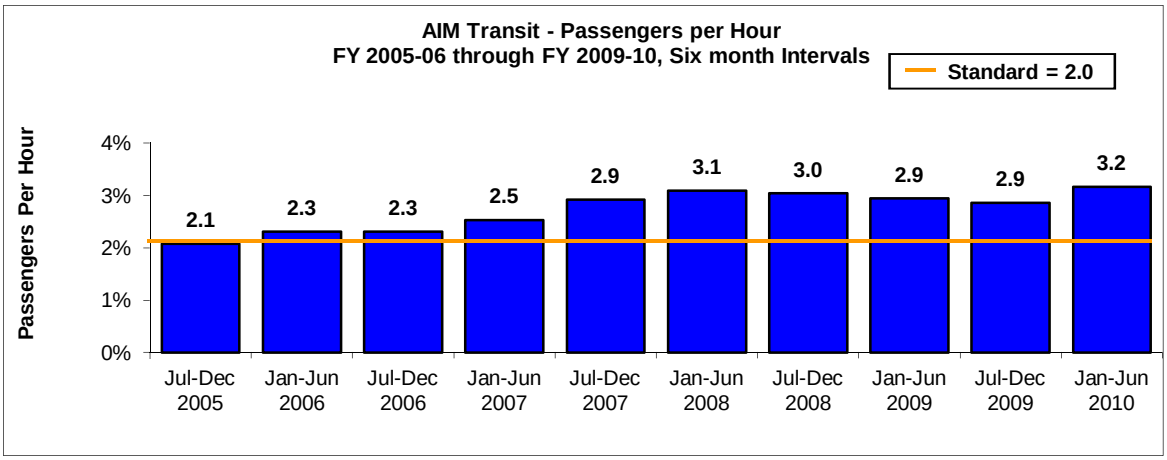
Figure 4-14: AIM Transit Vehicle Hours (Annual)



Passengers per Hour (Productivity)

Figure 4-15 presents the relative productivity of the AIM Transit service by six-month increment over the five-year period from FY 2005-06 through FY 2009-2010. Over this period, productivity generally increased, reaching 3.2 passengers per hour for the most recent six-month period reported.

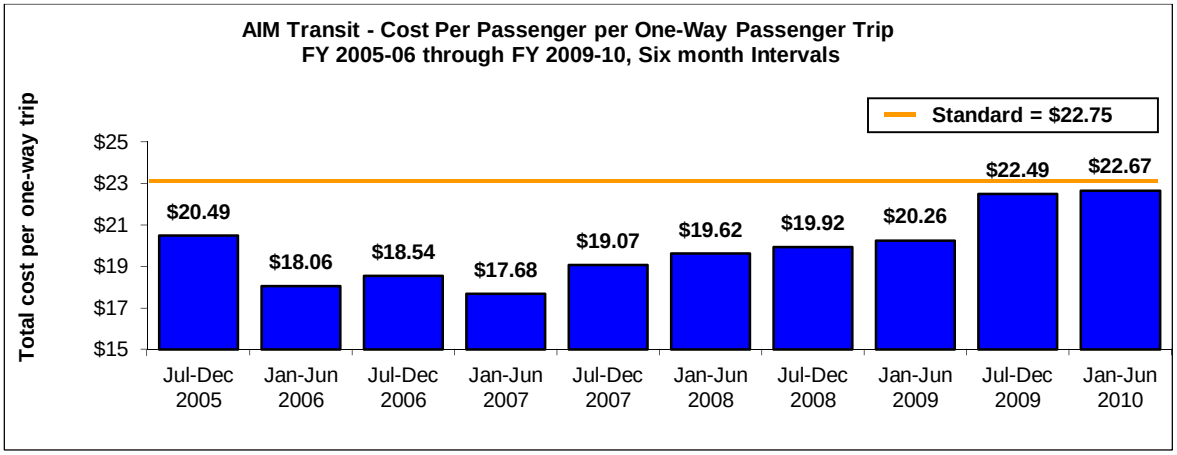
Figure 4-15: AIM Transit Passengers per Revenue Hour (Six-Month Intervals)



Average Cost per Passenger Trip (Cost-Effectiveness)

In terms of cost-effectiveness of the service, Figure 4-16 below shows AIM Transit's total cost per trip showing a six-month average declining through mid-2007 to below $18. Cost per trip then rose steadily towards $20 through 2007, 2008 and 2009, jumping to in excess of $22.50 during FY 2009-10. This presumably reflects reduced numbers of riders using the service as hours were reduced as well as impacts to travel patterns caused by the general economic downturn.

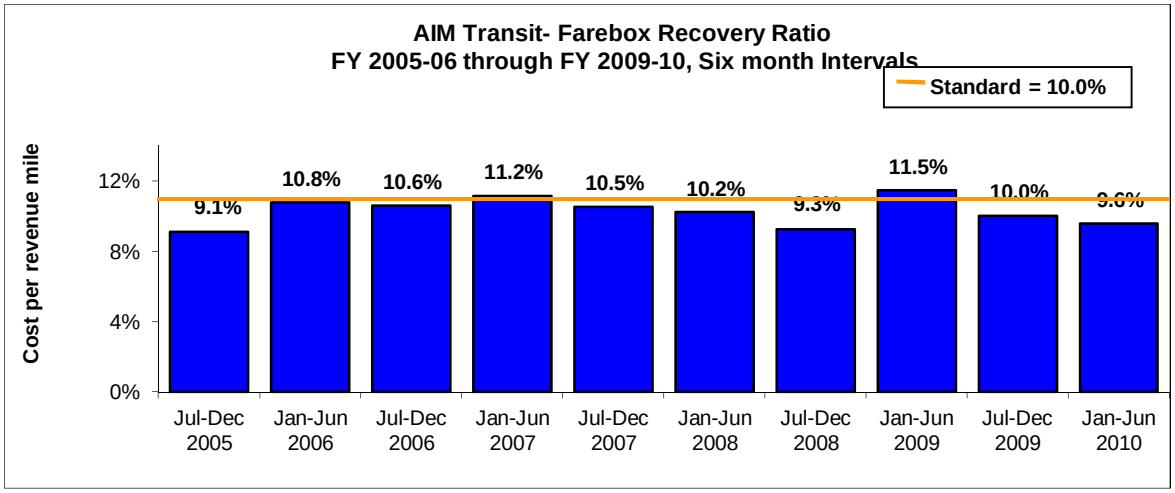
Figure 4-16: AIM Transit Cost per One-Way Passenger Trip (Six-Month Intervals)



Farebox Recovery Ratio (Cost-Effectiveness)

A second cost indicator, farebox recovery ratio, reflects the interrelationship of ridership and cost. AIM Transit is required by its contract, as well as by Transportation Development Act (TDA) statue, to attain at least a 10 percent farebox recovery ratio. The program has been well above the minimum standard for most reporting periods over the past five years, but is currently showing a six-month period that falls to 9.6 percent farebox recovery ratio, below the 10 percent standard. This may partially reflect a decrease in ridership.

Figure 4-17: AIM Transit Farebox Recovery Ratio (Six-Month Intervals)



Med-Express

One-Way Passenger Trips

Typically serving about 20 rides per day, Figure 4-18 shows Med-Express as a small service with consistent ridership over the past two six-month periods, peaking slightly in the early part of 2009 at almost 2,500 trips per six-month period. The fiscal year totals, presented in Figure 4-19, depict an annual high of 4,800 trips in FY 2005-06, followed by a decline in ridership, then modest increases of 4 percent or less annually.

Figure 4-18: Med-Express One-Way Passenger Trips (Six-Month Intervals)

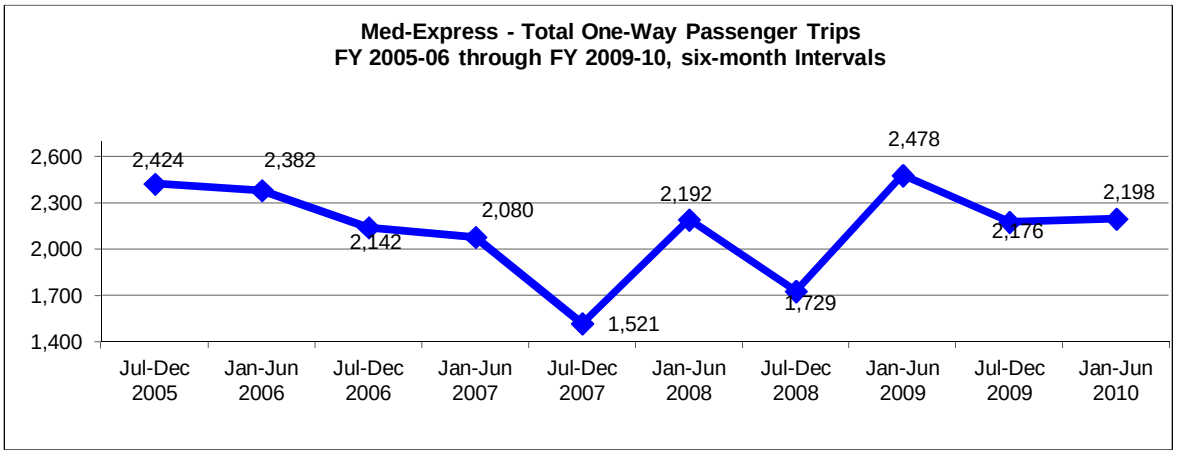
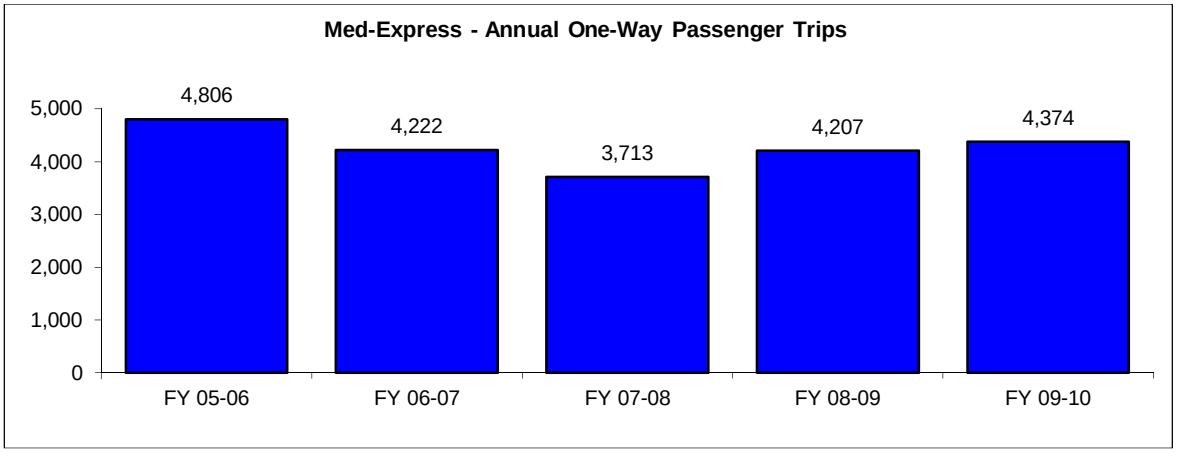


Figure 4-19: Med-Express One-Way Passenger Trips (Annual)



Vehicle Miles

Vehicle miles traveled by the Med-Express program have been declining since early 2008, reaching a low of 27,00 miles in the first six-months of 2010 (Figure 4-20), with the last full year of vehicle miles reported at 55,488 (Figure 4-21). Given that ridership has been increasing modestly, this downward trend in miles traveled suggests greater efficiencies in scheduling. There may also have been some change at the destination end, in terms of the numbers of destinations or their geographic spread within the greater San Diego area, requiring fewer vehicle miles traveled.

Figure 4-20: Med-Express Vehicle Miles (Six-Month Intervals)

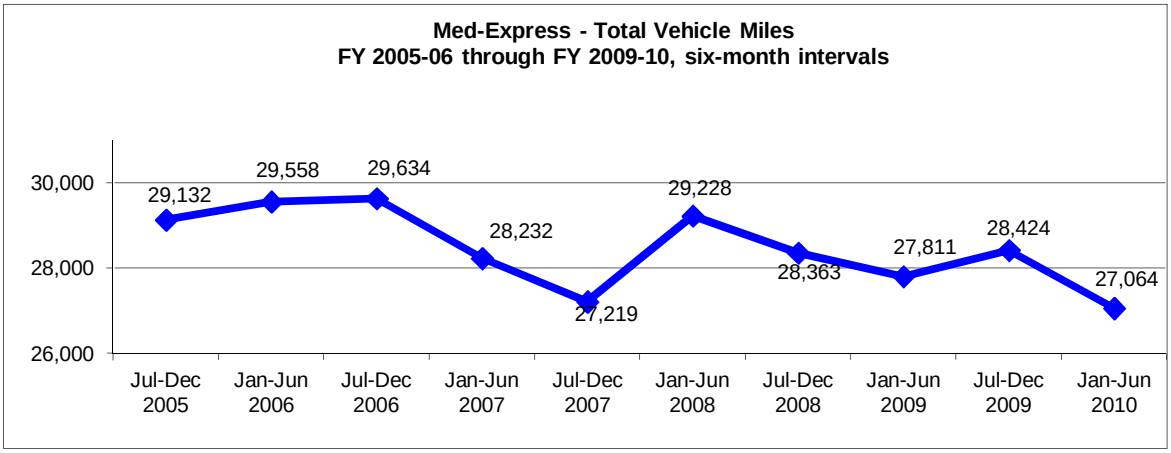
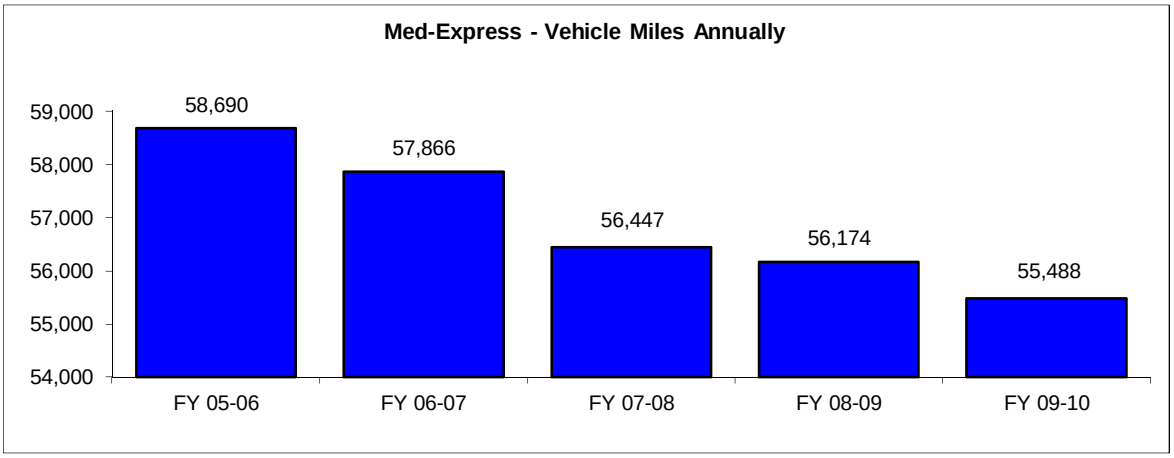


Figure 4-21: Med-Express Vehicle Miles (Annual)



Vehicle Hours

After having been reasonably flat in the early part of the reporting period, Med-Express vehicle hours spiked upwards in early 2009, with heavy levels of use in July and August of that year (Figure 4-22). Year-end annual totals present a modest 4.8 percent increase between FY 2008-09 and FY 2009-10, from 1,616 to 1,694 annual vehicle hours (Figure 4-23).

Figure 4-22: Med-Express Vehicle Hours (Six-Month Intervals)

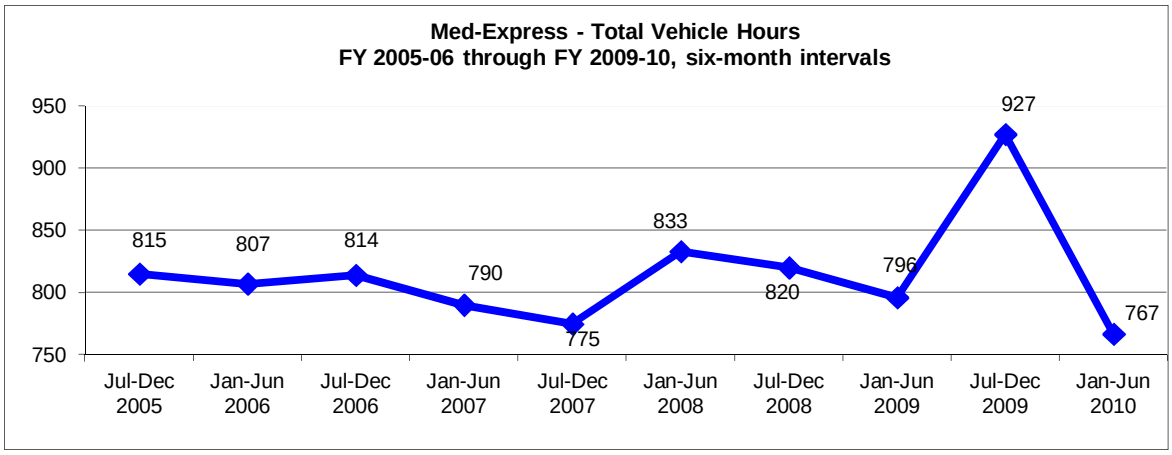
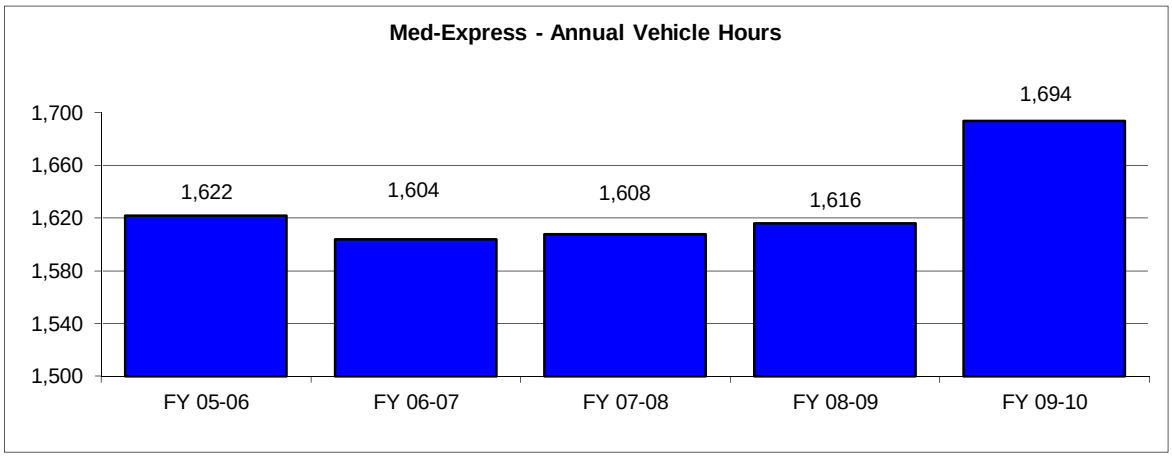


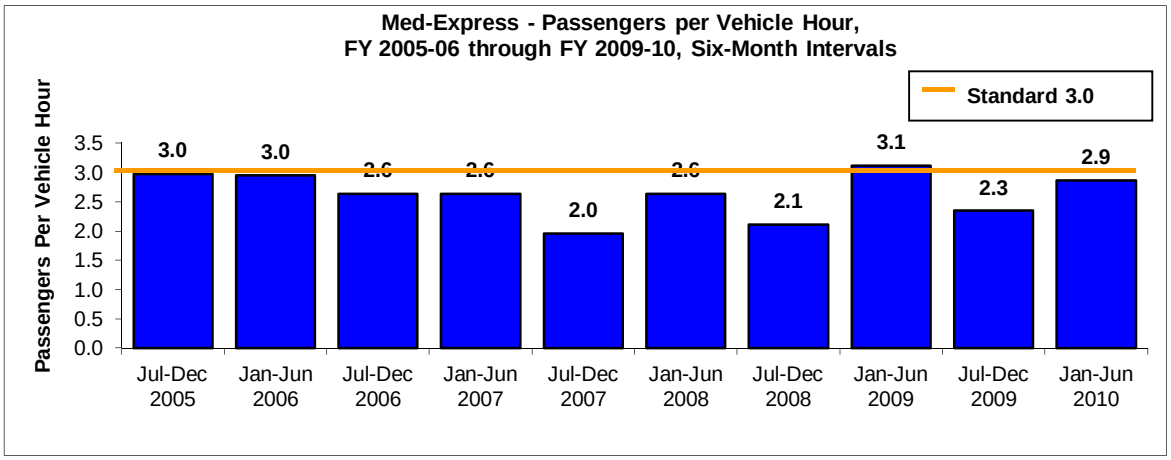
Figure 4-23: Med-Express Vehicle Hours (Annual)



Passengers per Hour (Productivity)

This performance indicator as a measure of productivity is shown in relation to the contract standard of 3.0 passengers per hour. The Med-Express program has struggled to meet this standard at various points, and is currently just below its minimum level of performance with 2.9 passengers per hour in early 2010.

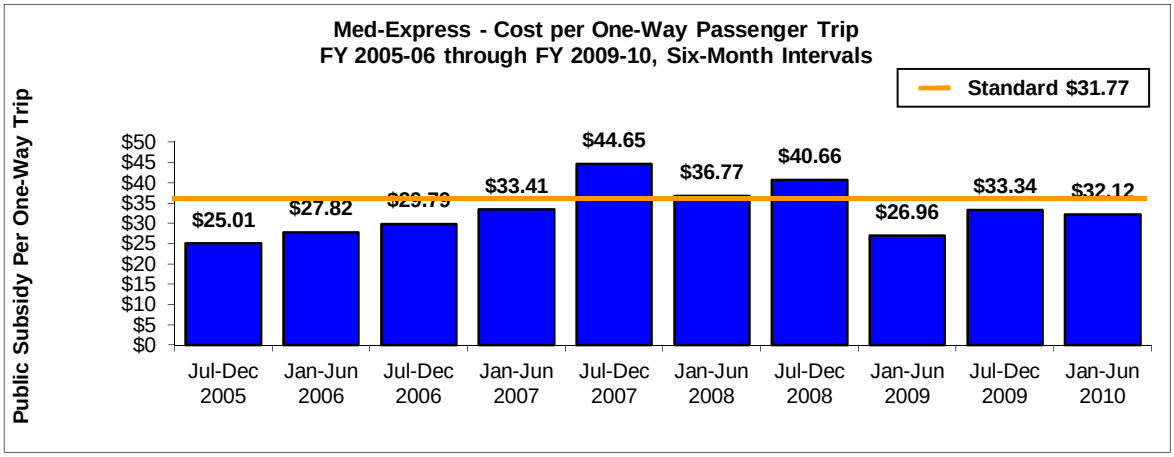
Figure 4-24: Med-Express Passengers per Vehicle Hour (Six-Month Intervals)



Average Cost per Passenger Trip (Cost-Effectiveness)

Costs per passenger trip for Med-Express have decreased over the past three reporting periods, following high levels early in FY 2007-08 and again in FY 2008-09. The last three reporting cycles have been below or very close to the contract standard for Med-Express of $31.77 per one way passenger trip.

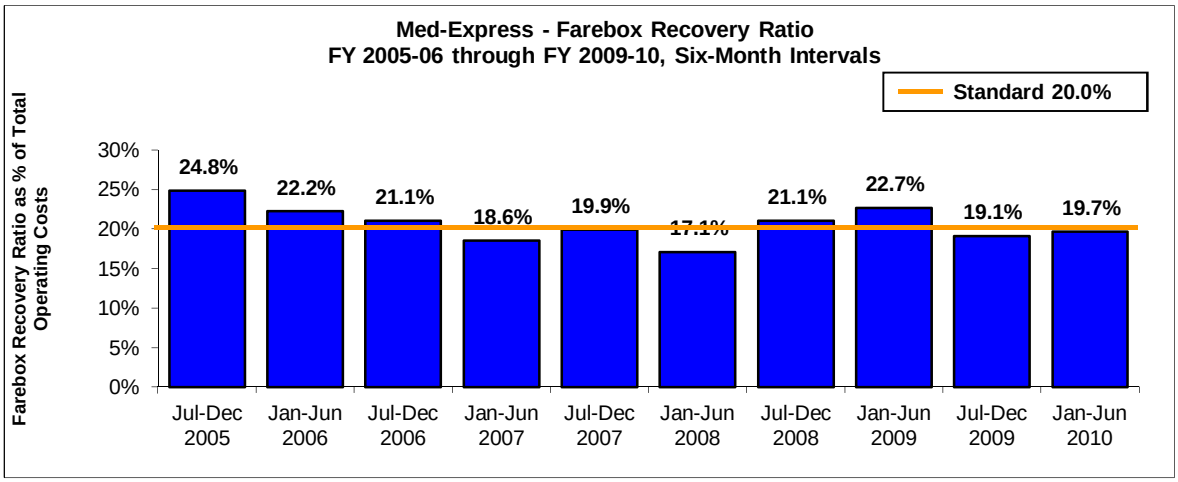
Figure 4-25: Med-Express Cost per One-Way Passenger Trip (Six-Month Intervals)



Farebox Recovery Ratio (Cost-Effectiveness)

This final indicator is of critical importance to maintaining the flow of LTF dollars to the program. ICTC and its partners have established a 20 percent standard and as shown in Figure 4-26 below, Med-Express exceeded this standard in several of the reporting periods and is currently just below that level of rider contribution to overall costs.

Figure 4-26: Med-Express Farebox Recovery Ratio (Six-Month Intervals)



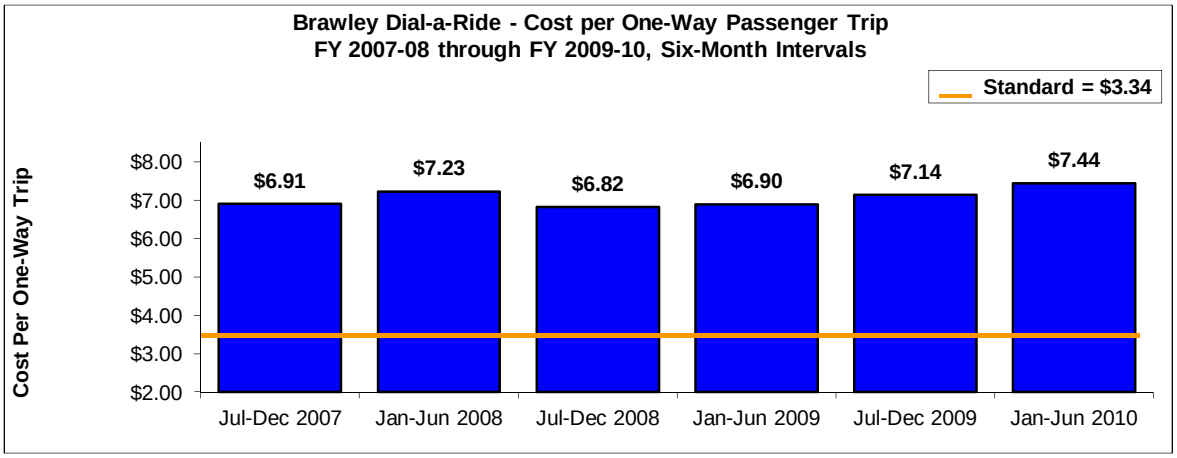
Brawley Dial-a-Ride

Passenger trips, service miles and service hour trends were reported previously. Examined here are historical trends for three fiscal years for three selected indicators of service performance: farebox recovery ratio, cost per trip and passengers per trip.

Cost per Passenger

Brawley Dial-a-Ride's cost per passenger has increased 7.6 percent over this three-year reporting period from $6.91 in the first reporting period to the current high of $7.44 in the most recent reporting period. There was some decline in cost per passenger late in 2008 and early 2009, possibly mirroring some decrease in revenue hours during those same timeframes.

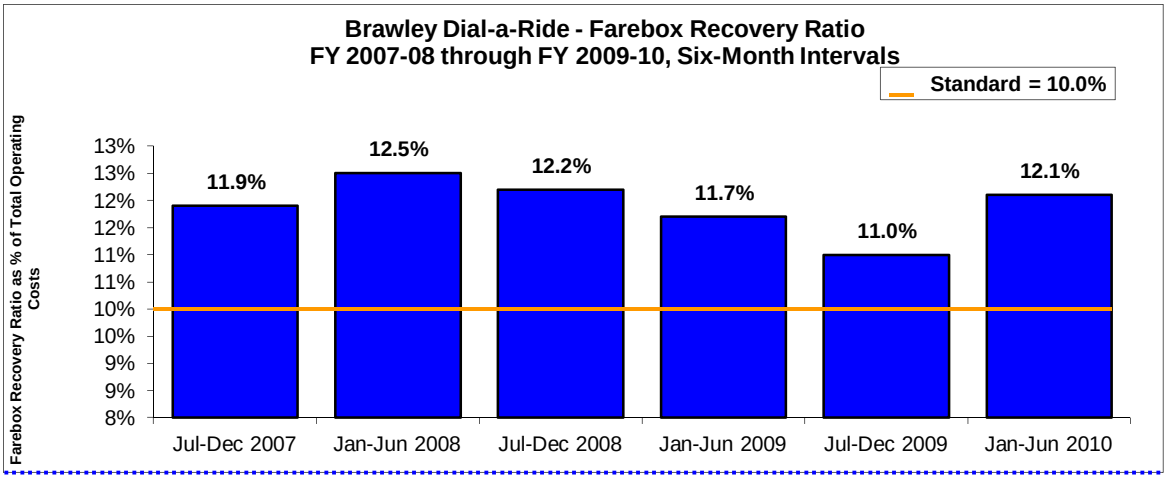
Figure 4-27: Brawley Dial-a-Ride Cost per One-Way Passenger Trip



Farebox Recovery Ratio

Brawley Dial-a-Ride has maintained farebox recovery levels above the TDA minimum 10 percent threshold for each of the reporting period, currently just below its highest level of 12.5 percent, at 12.1 percent for the most recent reporting period.

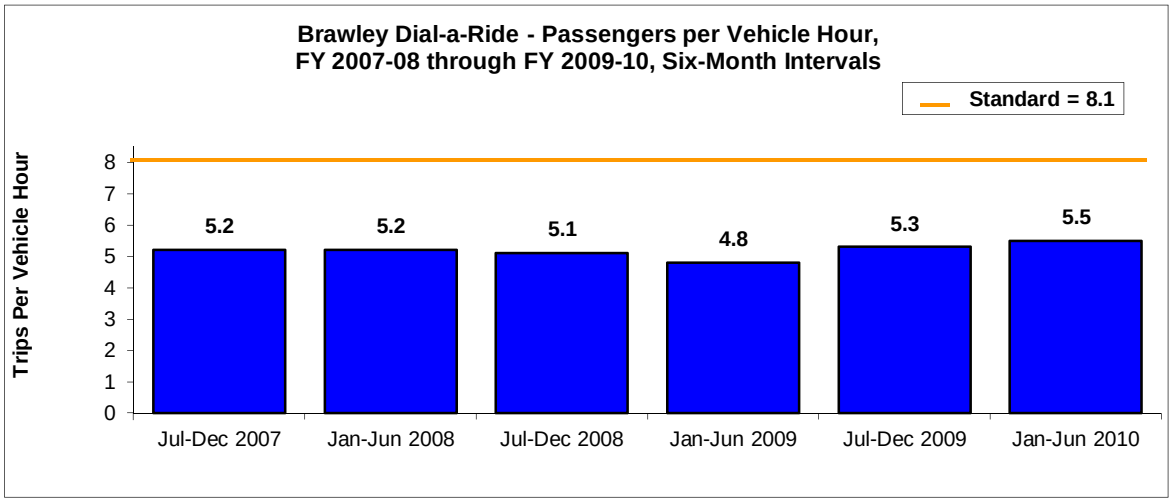
Figure 4-28: Brawley Dial-a-Ride Farebox Recovery Ratio



Passengers per Vehicle Hour

Brawley Dial-a-Ride shows fairly consistent productivity, in relation to riders per service hour – generally between 4.8 and 5.1 riders per hour. There has been an increase in this indicator over the past two reporting periods, from its low of 4.8 riders per hour in the early part of 2009 when ridership is also likely to have dropped.

Figure 4-29: Brawley Dial-a-Ride Passengers per Vehicle Hour



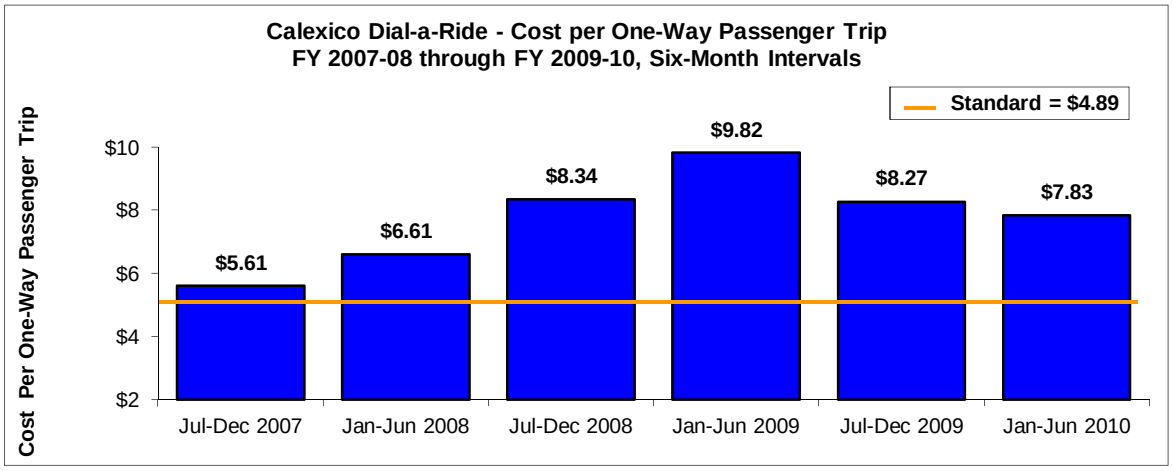
Calexico Dial-a-Ride

Passenger trips, service miles and service hour trends were reported previously. Examined here are historical trends for three fiscal years for three selected indicators of service performance: cost per trip, farebox recovery ratio, and passengers per vehicle hour.

Cost per Passenger

Calexico Dial-a-Ride's cost per passenger has realized some significant changes over this three-year period, climbing to a high of $9.82 in the first half of 2009 and declining somewhat to the most recent rate of $7.83 per one-way trip. This reflects in part decreased ridership in FY 2008-09 which began to climb again in the more recent year.

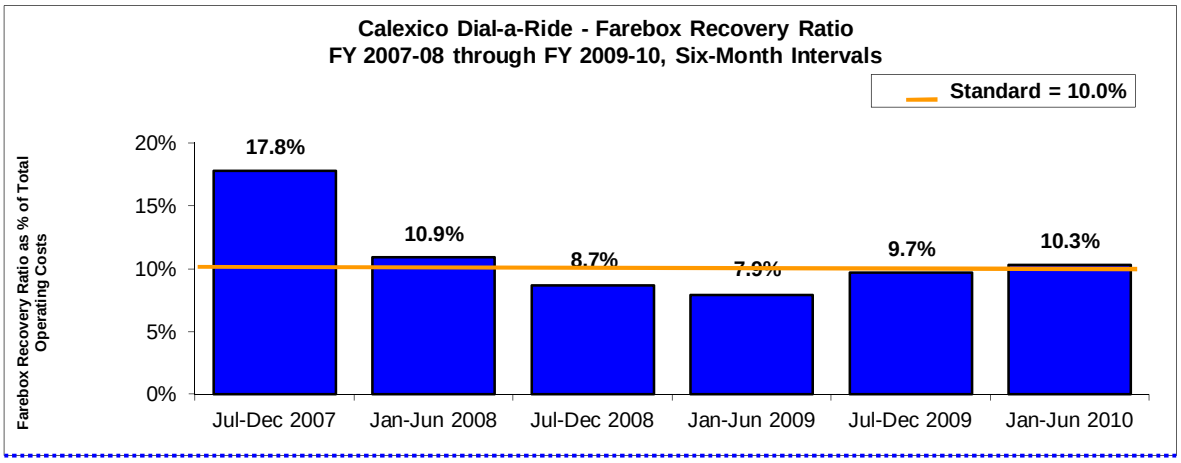
Figure 4-30: Calexico Dial-a-Ride Cost per Passenger



Farebox Recovery Ratio

Calexico Dial-a-Ride's farebox recovery history follows its ridership decline and gains picture. For three of the preceding six-month periods, in 2009 and 2009, the system operated below the 10 percent TDA state's minimum standard. In the most recent reporting period, it has now just above the minimum standard at 10.3 percent.

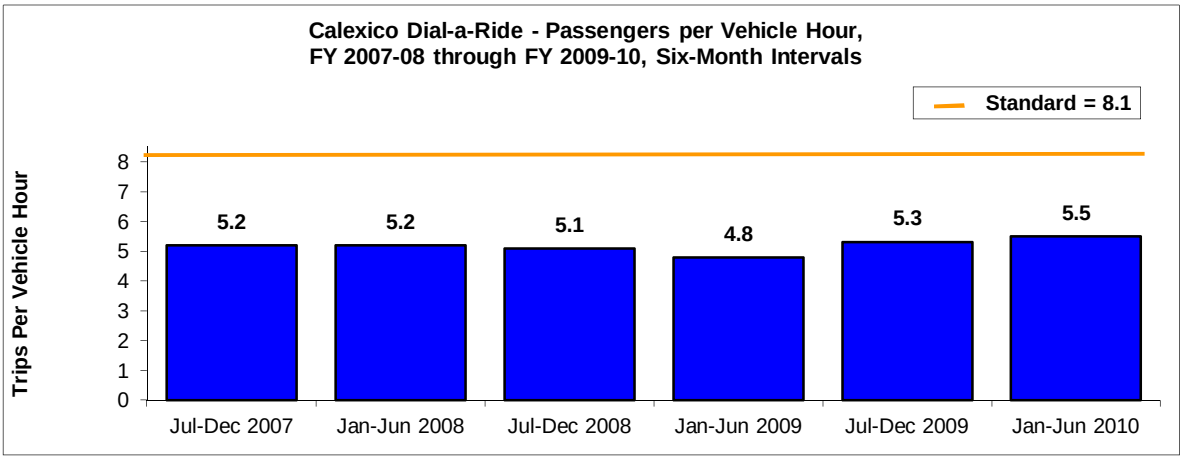
Figure 4-31: Calexico Dial-a-Ride Farebox Recovery Ratio



Passengers per Vehicle Hour

Calexico Dial-a-Ride's productivity indicator of riders per service hour have remained reasonably constant during this reporting period, despite the fluctuations in ridership. This is in part a result of the reduction in revenue hours that was instituted when the reduced state revenue picture became apparent. Productivity is at its highest point for the three-year period in most recent six-month period, 5.5 passengers per hour.

Figure 4-32: Calexico Dial-a-Ride Passengers per Vehicle Hour



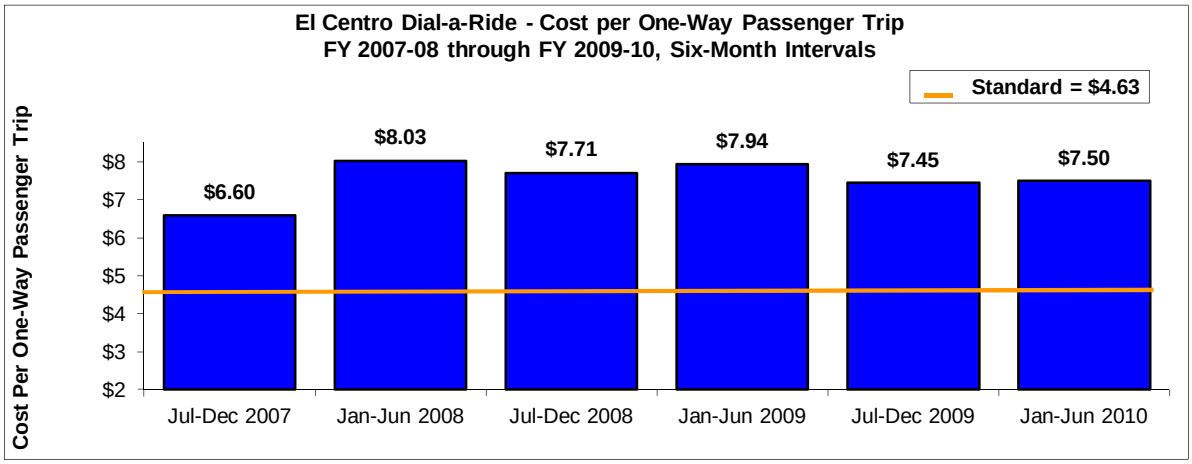
El Centro Dial-a-Ride

Passenger trips, service miles and service hour trends were reported previously. Examined here are historical trends for three fiscal years for three selected indicators of service performance: farebox recovery ratio, cost per trip and passengers per trip.

Cost per Passenger

El Centro Dial-a-Ride's cost per passenger, currently calculated at $7.50 per rider, has come down from a high of $8.03 early in 2008 when ridership was declining and costs were not. This steady decrease in rider per-trip costs reflects both increasing ridership and controlled costs.

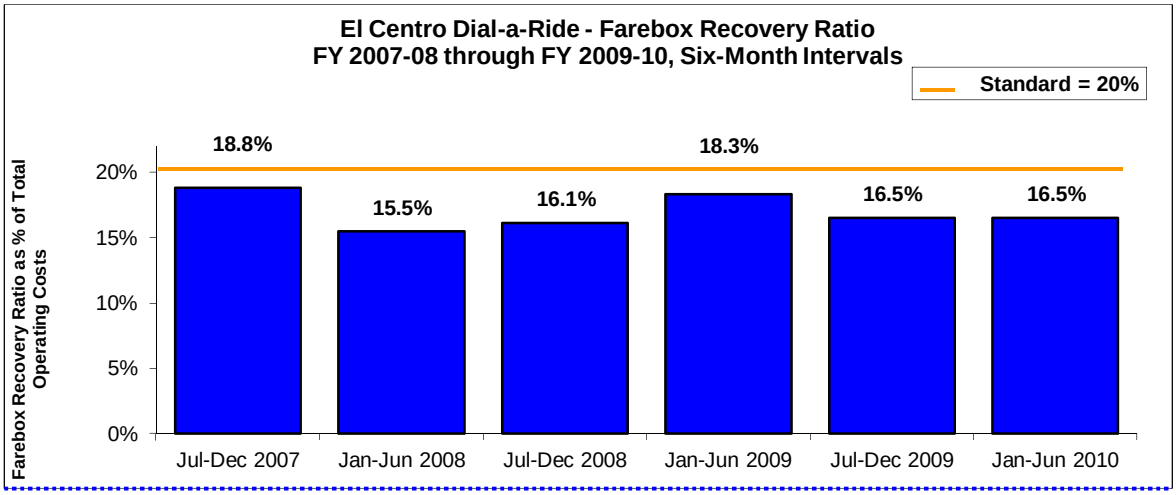
Figure 4-33: El Centro Dial-a-Ride Cost per Passenger



Farebox Recovery Ratio

El Centro Dial-a-Ride's farebox recovery experience over these reporting periods has fluctuated, not currently at its 18 percent high levels, currently at 16.5 percent for the most recent reporting period but not at its lowest level seen in the early part of 2008

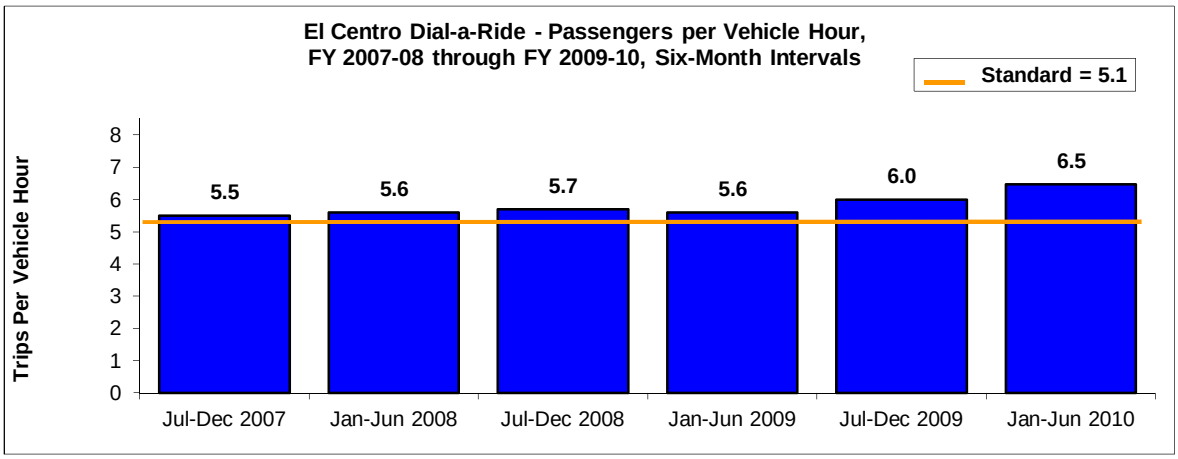
Figure 4-34: El Centro Dial-a-Ride Farebox Recovery Ratio



Passengers per Vehicle Hour

El Centro Dial-a-Ride's productivity of 6.5 trips per hour is at its highest point for this three year reporting period, and well above its 5.1 trips per hour standard. Encouragingly, the program shows a steady increase in productivity through this entire reporting period, despite the difficulties in ridership, revenues and unit costs presented by other indicators.

Figure 4-35: El Centro Dial-a-Ride Passengers per Vehicle Hour



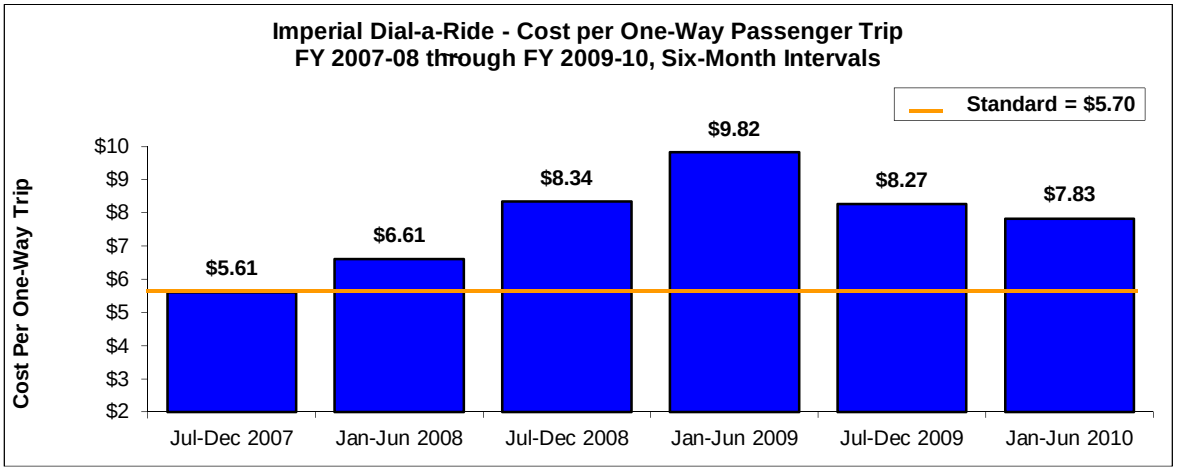
Imperial Dial-a-Ride

Passenger trips, service miles and service hour trends were reported previously. Examined here are historical trends for three fiscal years for three selected indicators of service performance: farebox recovery ratio, cost per trip and passengers per trip.

Cost per Passenger

Imperial Dial-a-Ride's cost per passenger at $7.83 is down from its 2008 highs when most of the other transit services were grappling with declining ridership and decreased fare revenues. This per passenger cost is however almost 40 percent above the $5.61 per rider cost of the earliest reporting period and suggests some concern about growth in expenses that is not sufficiently offset by recovering ridership levels.

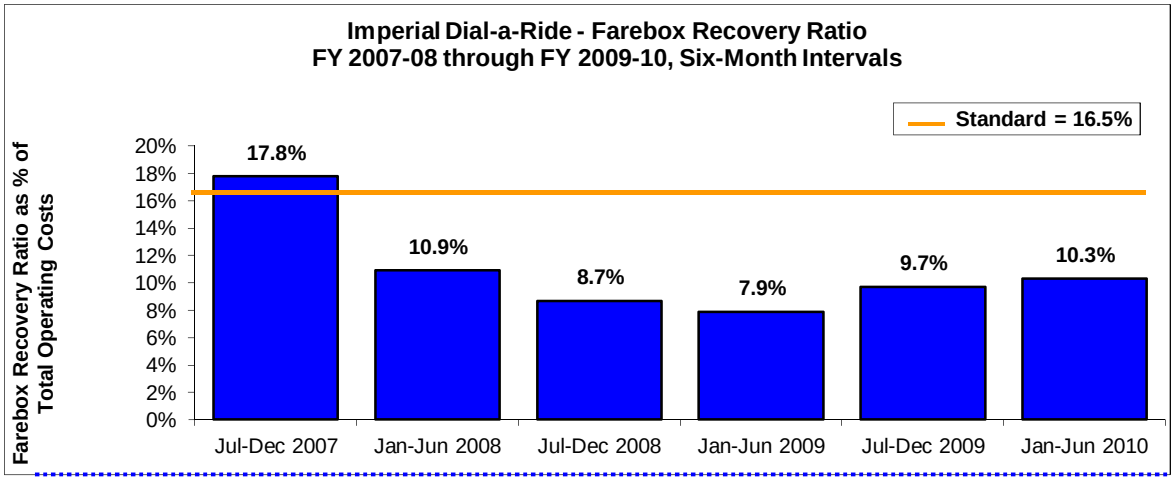
Figure 4-36: Imperial Dial-a-Ride Cost per Passenger



Farebox Recovery Ratio

Imperial Dial-a-Ride's farebox recovery ratio at 10.3 percent for the most recent reporting period is just over the TDA minimum 10 percent standard for demand response programs and shows some recovery over prior reporting periods where it fell below that standard. It is, however, at considerable distance from the 17 percent level of fares to expenses presented in the earliest reporting period, late in 2007.

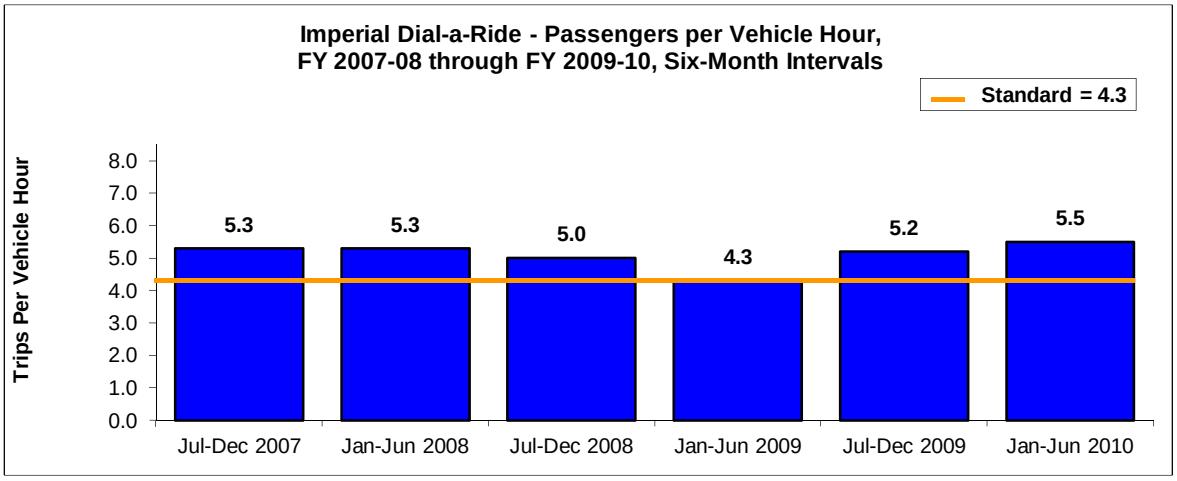
Figure 4-37: Imperial Dial-a-Ride Farebox Recovery Ratio



Passengers per Vehicle Hour

Imperial Dial-a-Ride's productivity of 5.5 trips per hour is well above its standard of 4.3 trips per hour and shows recent history of increasing productivity levels. That said, the service has shown fairly constant productivity levels of over 5 trips per hour with the exception of the first half of 2009 when it reached a low of 4.3.

Figure 4-38: Imperial Dial-a-Ride Passengers per Vehicle Hour



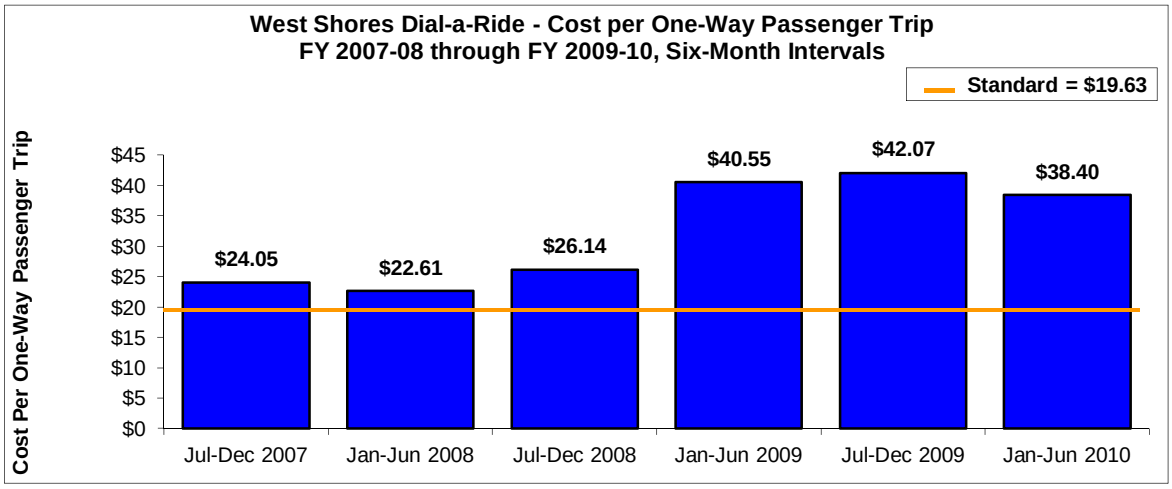
West Shores Dial-a-Ride

Passenger trips, service miles and service hour trends were reported previously. Examined here are historical trends for three fiscal years for three selected indicators of service performance: farebox recovery ratio, cost per trip and passengers per trip.

Cost per Passenger

West Shores Dial-a-Ride's cost per passenger at $38.40 has declined from its high of $42.07, but it is well above its standard of $19.63. As has been noted elsewhere this program grapples with modest ridership and high operating costs which are reflected in its high cost per trip.

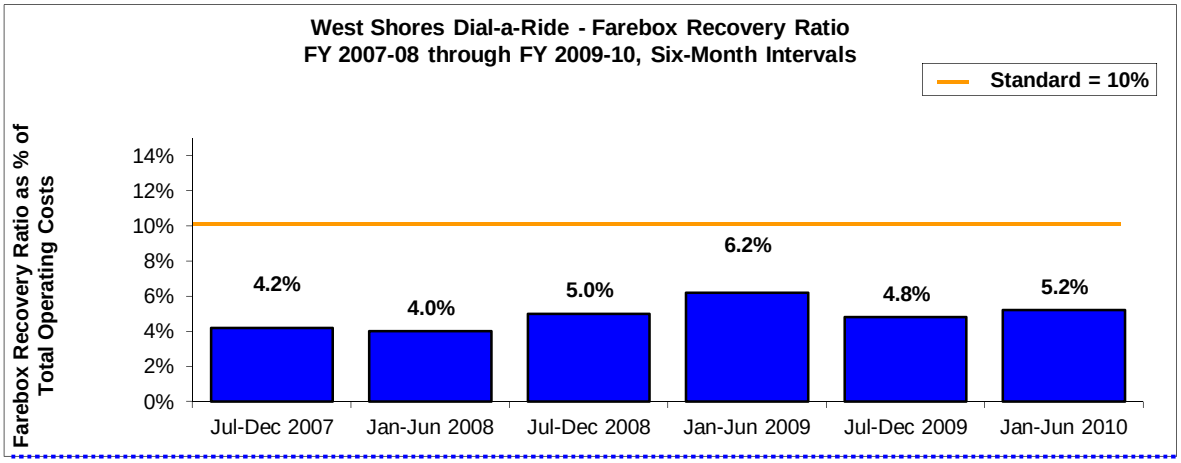
Figure 4-39: West Shores Dial-a-Ride Cost per Passenger



Farebox Recovery Ratio

West Shores Dial-a-Ride's farebox recovery ratio of 5.2 percent for the most recent reporting period is well below the TDA minimum 10 percent standard for demand response programs. It has not achieved the minimum during this three year reporting period.

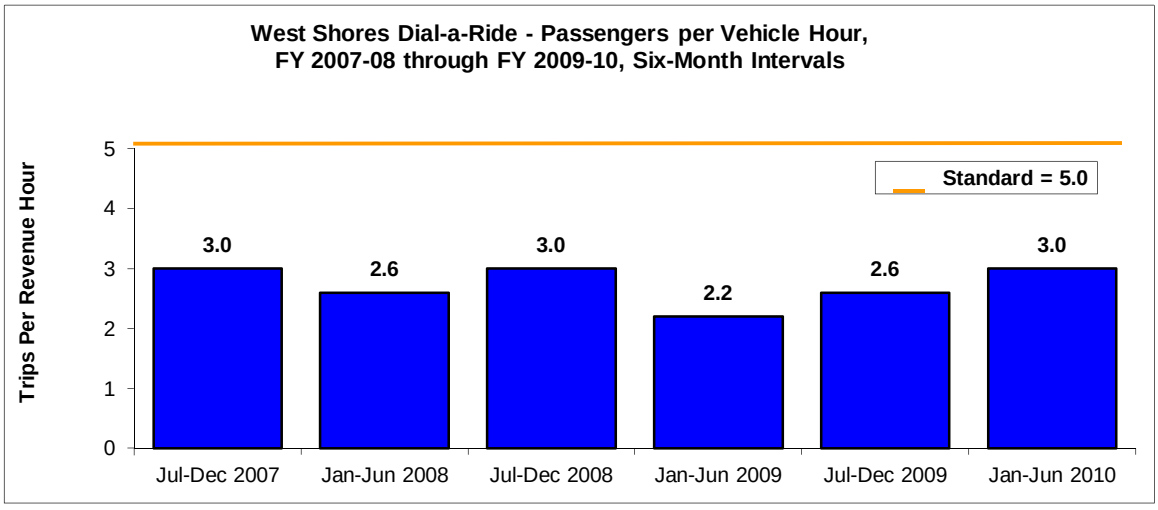
Figure 4-40: West Shores Dial-a-Ride Farebox Recovery Ratio



Passengers per Vehicle Hour

West Shores Dial-a-Ride's productivity of 3.0, a level that it has reached but not exceeded in the past three years, is well below the current productivity standard of 5.0 trips per hour and is reflective of the other issues of this modestly utilized service.

Figure 4-41: West Shores Dial-a-Ride Passengers per Vehicle Hour



4.2.3 Analysis of Selected Demand Response Utilization Indicators

No-Show and Trip Cancellation Rates

Passengers' use of the demand response services, in terms of frequency of cancellation and no-show trips, as well as the rates of trip denials are important utilization indicators.

- **For trip cancellations,** if these are made sufficiently far in advance, they have little impact on the vehicle routing process and its efficiencies. If cancellations are made late, say within three hours or after the vehicle tour has been prepared and given to the driver, these will impact the efficiency of scheduling.
- **For no-show trips,** where the vehicle arrives at the door and the passenger is not there or has determined that they cannot make the trip, these do result in wasted resources. Vehicle revenue time has been expended but a passenger has not boarded. Sometimes no-shows happen when the vehicle is late and the rider secures alternate transportation. While some no-shows are unavoidable, patterns of no-show and high rates of no-show trips are not desirable.
- **For trip denials,** significant numbers or denials at particular times of day or days of the week point to capacity issues. There may be insufficient vehicle resources to meet the presenting trip demand. In the case of ADA complementary paratransit services, the courts have ruled that essentially no denials are allowable. But for the community-level demand response programs, some denials are likely and acceptable but also may suggest where the service demand is exceeding capacity.

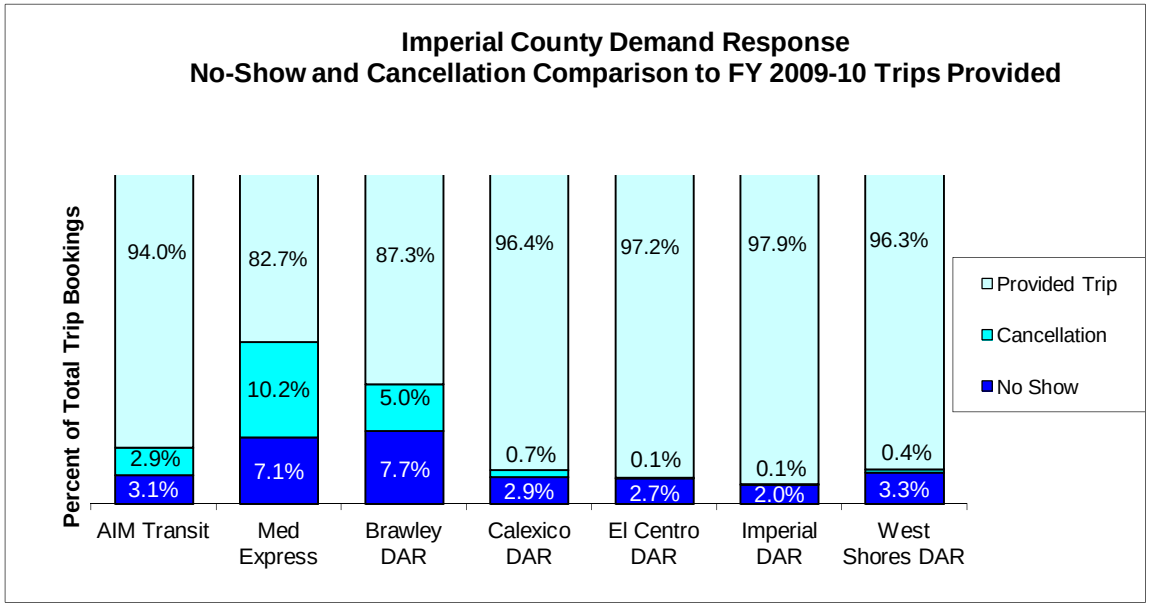
The data reported in the figures following represents total cancellation, no-show and trip denial information as provided by the providers in their regular reporting to ICTC. It does not delineate days or times when these issues present and further analysis would be necessary to explore that.

National research done on *Practices of No-Show and Late Cancellation Policies for ADA Paratransit,* published as TCRP Synthesis 60 (2005), explores in considerable detail the experiences of various transit agencies in setting and enforcing policies around no-shows and late cancellations. The report does not establish standards but reports experiences of various properties in reducing rates of missed trips. No-show rates were identified by some interviewed properties as in excess of 5 percent of trips booked, these reduced to between 1.5 percent to 2 percent of trips booked, by various practices. Trip cancellation rates were not identified individually, but one larger ADA complementary paratransit operator had policies in place to keep the overall combined no-show/ late cancellation rate at approximately 3 percent of all trips booked. Trip denials, as noted above, are not acceptable for ADA complementary paratransit but are useful management tools for other demand response providers not governed by ADA regulations.

Figure 3-35 following presents available FY 2009-10 no-show and cancellation information for the seven demand response providers. The large light blue bar and the large percentages there reflect the proportion of trips completed, from the 100 percent total of trip bookings. The dark blue bars represent no-shows, as a percentage of total bookings and the medium blue bars represent cancellations. The data provided make no distinction as to whether the cancels recorded are advance cancels, which should not represent scheduling problems or late cancels which usually lead to some scheduling inefficiencies.

For purposes of analysis, a combined rate of no-show and trip cancellation in excess of 5 percent can be proposed as a working standard, based loosely upon the TCRP Synthesis #60 reported experiences. Notably though, that report focused almost exclusively on ADA complementary paratransit programs. Figure 4-42 indicates that Calexico Dial-A-Ride, El Centro, Imperial and West Shores Dial-A-Ride are all within the range of 5 percent for a combined no-show and cancellation percentage.

Figure 4-42: Imperial County Demand Response No-Shows and Cancellations



Med-Express has comparatively high rates of no-shows (7.1 percent) and cancellations (10.1 percent), combined at 18.8 percent. To some extent, this is predictable for a service where people are ill when the trip reservation is made and their condition changes, either worsening or getting better, possibly making the trip unnecessary. These high rates do suggest the importance of looking at reservation practices of individuals to determine whether there is any evidence of abuse. Also, it may be that the reservation window of up to two weeks in advance is too far and shortening that window could lead to reduced no-shows and cancellations.

AIM Transit with, 3.1 percent reported no-shows and 2.9 percent cancellations (a 6 percent combined total), may benefit from a review of its policies and procedures with regard to passengers' use of the service. TCRP Synthesis #60 is a specific review of ADA-related policies and practices from around the country for ADA operators. Instituting these, in a number of variations, has resulted in decreased no-shows and late cancellations, reducing instances of wasted resources.

Brawley Dial-a-Ride rates of 5 percent cancellations and 7.7 percent no-shows (a combined rate of 12.7 percent), are also comparatively high. This may suggest some problems with capacity or on-time performance and individuals finding alternative rides, not waiting for the dial-a-ride service to arrive.

Calexico, El Centro, Imperial and West Shores Dial-a-Rides all appear to have reasonable rates of cancellations and no-shows, but will benefit from continuing to monitor and by reviewing both the practice and the implementation of stated no-show policies with riders.

Trip Denial Rates

Denied trips are reported to ICTC by five of the seven demand response providers. This data is particularly important for AIM Transit, as the county's ADA complementary parataransit program and for which trip denials have been very tightly circumscribed by ADA regulation and court decision. Table 4-14 following presents the reported trip denial experience for the five reporting providers.

Notably, AIM Transit is reporting zero denials in terms of "request date booked." The service was able to book all requested trips for the date requested, with the exceptions identified below that: four trips where the pick-up time could not be booked and five trips where a re-negotiated date or time could not be arrived at with the caller. The total reported 28 denials, with several of these reflecting non-eligible riders or trip requests, represented 0.1 percent as a percentage of total trips provided.

Med-Express has the highest trip denial rate of the responding providers and this is appropriate. This non-emergency medical transportation is limited in quantity and days of service available. It is a discretionary service that Imperial County chooses to provide and to fund but it will not be able to handle all trip requests given the potential demand, the dispersion of destinations to which riders may potentially need to travel and the real spatial and temporal limits that exist for this four-day-per-week inter-county service.

West Shores Dial-a-Ride trip denials of note were for trips on days when this service is not in operation. Under the most current contract amendment, the West Shores Dial-a-Ride operates only on Tuesdays and Thursdays.

For the overall experience of the five responding providers, the reported 362 trips represented 0.2 percent of the 147,603 demand responsive trips provided in Imperial County during FY 2009-10. The largest category of denied trip was for same-day service requests (46.4 percent), clearly a desirable and important need of riders but one that cannot always be filled by demand response providers, given trip manifests that are already full with advance reservation trip requests.

Table 4-14: Imperial County Demand Response Trip Denials

FY 2009/10 Trip Denials	Aim Transit	Med-Express	Brawley DAR	Calexico DAR	El Centro DAR	Imperial DAR	West Shores DAR	Total Denials	% of Total Denials
Same Day Trip Request	12	0	Not Available	Not Available	118	26	12	**168**	**46.4%**
Request Date Booked	0	110			1	0	0	**111**	**30.7%**
Request P/U Time Booked	4	0			16	6	1	**27**	**7.5%**
Does Not Qualify	4	0			5	18	0	**27**	**7.5%**
Out of Window/ Non Service Day	0	0			0	0	19	**19**	**5.2%**
Cannot Renegotiate Date or Time	5	0			0	0	0	**5**	**1.4%**
Request Return Time Booked	0	0			1	1	0	**2**	**0.6%**
P/U Address Out of Corridor	2	0			0	0	0	**2**	**0.6%**
Destination Outside Corridor	1	0			0	0	0	**1**	**0.3%**
Total Denials	**28**	**110**	**0**	**0**	**141**	**51**	**32**	**362**	**100.0%**

	Aim Transit	Med-Express	Brawley DAR	Calexico DAR	El Centro DAR	Imperial DAR	West Shores DAR	Total DAR Trips Provided
Total Trips Provided	36,803	4,374	28,575	41,601	26,022	8,016	2,212	**147,603**
Total Denials All Types	28	110	N/A	N/A	141	51	32	**362**
Denials as a Percent of Total Trips	0.1%	2.5%	N/A	N/A	0.5%	0.6%	1.4%	**0.2%**

4.2.4 Demand Response Peer Analysis

As noted at other points in this SRTP process, several types of demand responsive programs operate within Imperial County, making it complicated to present peer comparisons. The discussion in Chapter 1 reported on nationally published rural services' performance: TCRP Report #136 *Guidebook for Rural Demand-Response Transportation*. This report provided some context for examining Imperial County's various demand responsive systems, notably a typology for considering the types of services operated. The three categories of this typology, and the assignment of Imperial County dial-a-rides, are as follows:

1. Primarily Single-Municipality Systems: Brawley, Calexico, El Centro, Imperial, West Shores Dial-a-Rides
2. Primarily Single-County Systems: AIM Transit (now IVT Access)
3. Primarily Multi-County Systems: Med-Express

To assess Imperial County's programs in relation to the performance ranges reported in TCRP Report #136, a series of modified box plots[3] are presented contrasting Imperial County's providers' response with these national norms. Three charts follow:

- Operating Cost per Vehicle Hour
- Operating Cost per Passenger Trip
- Passengers per Vehicle Hour

Each chart presents the typology of the three system types and the TCRP reported minimum, median and maximum values for cost per vehicle hour, cost per passenger trip and passengers per revenue hour. This provides a means for assessing whether performance is low, medium or high in relation to these values. The TCRP values are drawn a report published in 2007 and reflecting 2006 NTD datasets. Although this information is approximately two years older than the Fiscal Year 2009-10 data represented for the Imperial Valley services, these remain viable comparisons in that in many cases, services are at or within reach of the median values.

[3] Box plots are a statistical presentation tool used to depict an array of data points in relation to minimum, median and maximum values or, as in the case of traditional box plots, to depict where the values of interest stand in relation to quartile distributions. The traditional box around the middle quartiles and whiskers depicting the minimum and maximum values were not included here in order to simplify the visual presentation of these seven Imperial County services within the TCRP Report #136 typology.

Cost per Revenue Hour

Analysis of the seven services' FY 2009-10 operating cost per revenue hour is presented in Figure 4-43 following, reflecting the full cost of operations against total revenue hours provided. This is a measure of the overall cost-effectiveness of the program.

For the municipal services, the fist bar to the left shows that the five services operating generally within a single municipal area are mostly clustered above the median. Brawley Dial-a-Ride, at $39.01 per revenue hour, is closest to the NTD median of $34.33 for this service type. Calexico Dial-a-Ride, at $43.13, and El Centro Dial-a-Ride, at $46.40, are similarly close. Imperial Dial-a-Ride, at $59.54, is the highest in this sub-grouping, more than $25 dollars per hour above the median value or over 70 percent higher than the median and yet still below the maximum NTD reported value in TCRP Report #136 for this group of providers.

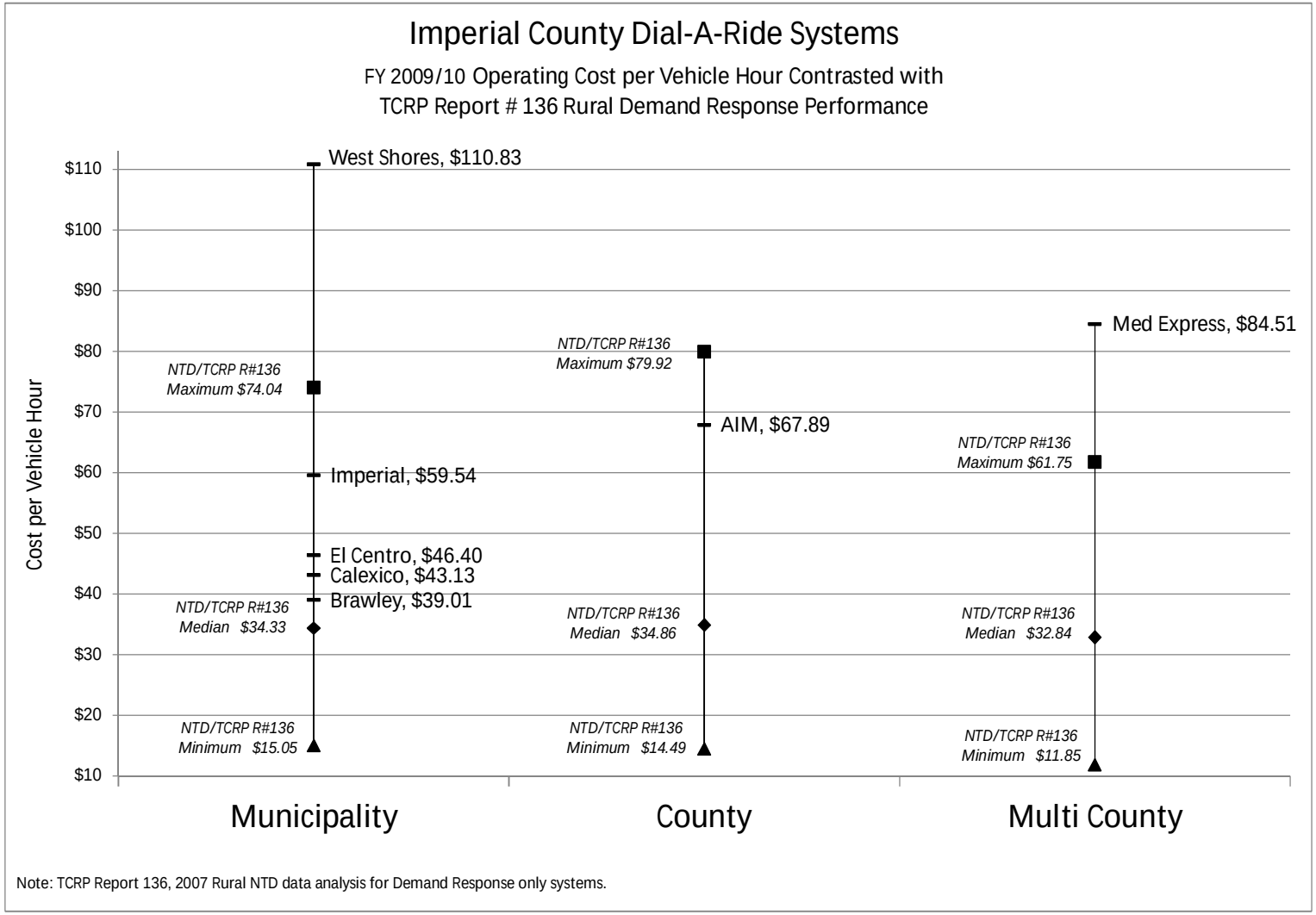
Clearly the municipal service outlier here is the West Shores Dial-a-Ride cost of $110.83, more than 200 percent above the median value and $35 above the maximum value. This high cost per hour presumably reflects the deadhead costs that must be built into the overall rates to cover costs of extending dial-a-ride service out to the Salton Sea communities.

For the county services, only AIM Transit (now IVT Access) is categorized as a county service, going beyond the municipal boundaries to a variety of destinations within the county. AIM Transit, at $67.89, is below the NTD maximum value of $79.92.

For the multi-county services, the last bar to the right, only Med Express is categorized as serving multiple counties, with its service into San Diego County medical facilities for Imperial County residents. This service is above the NTD maximum value of $61.75, at $84.51.

Notably, of all three indicators reported in this sub-section, these revenue vehicle hour costs are probably most adversely compared to the Report #136 values which reflected 2007 dollars. Nonetheless, all of the municipal dial-a-rides, with the exception of West Shores, appear to be within reasonable operating costs per revenue hours. The two services operating around the county and between Imperial and San Diego Counties are high, AIM Transit somewhat below the maximum value for its type and Med Express somewhat above the maximum value for its type. Given 2009/2010 dollars, these higher values may not be out-of-line.

Figure 4-43: Peer Analysis Cost per Vehicle Hour



Operating Cost per Passenger Trip

Figure 4-44 presents the cost per trip analysis of TCRP Report #136 norms for the seven Imperial County Dial-a-Ride programs. Analysis of operating cost per passenger trip reflects full program costs in relation to FY 2009-10 one-way passenger trips provided and depicts the cost efficiency of the systems, relating the costs of the service hours available to the number of passengers boarded.

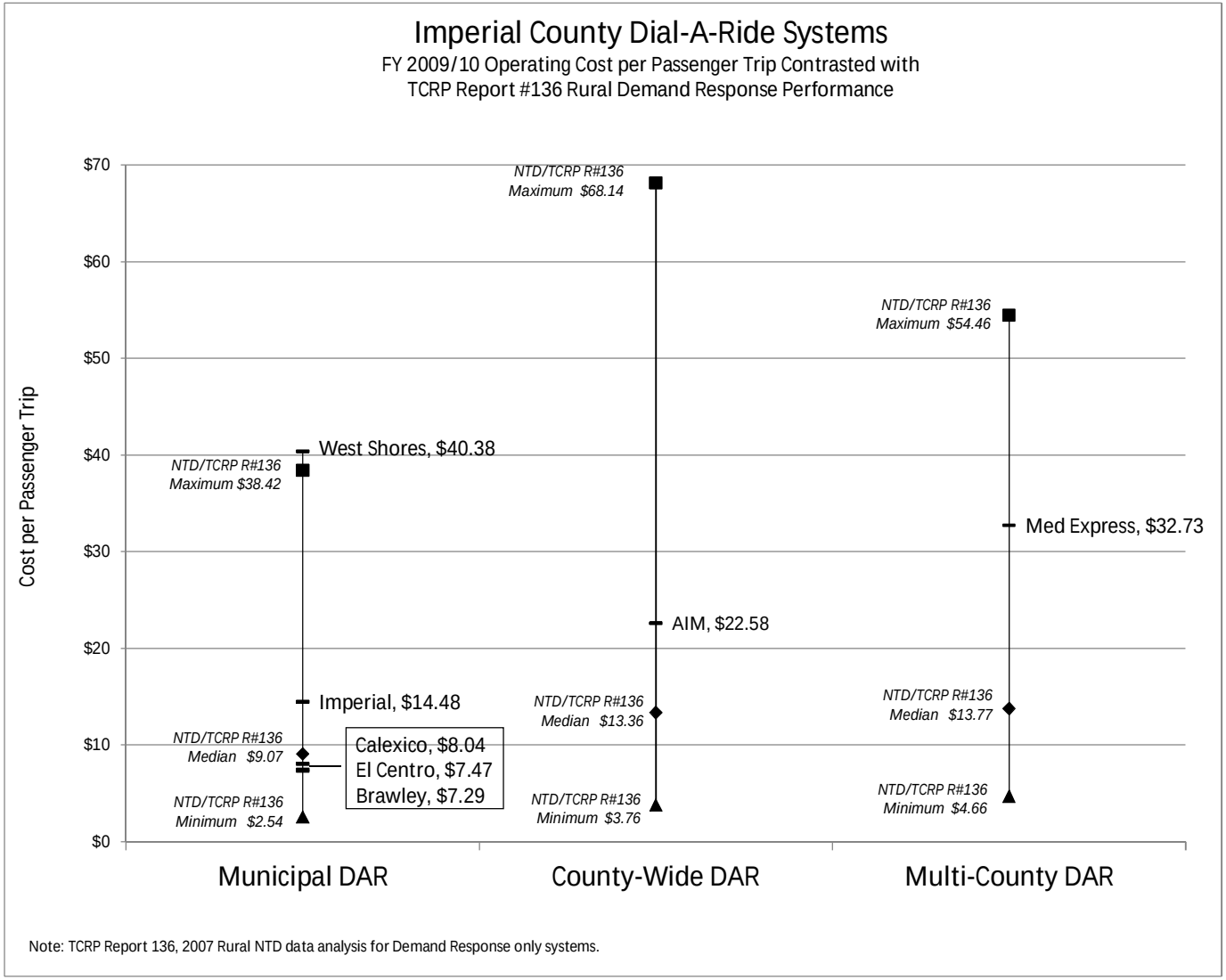
For the municipal services, again, the West Shores service is at the highest level, at $40.38 per passenger trip just above the NTD maximum value of $38.42. As with its operating cost per hour placement on the preceding Figure 3-36, this points to a high-cost, low cost-effectiveness rated service.

Imperial Dial-a-Ride, at $14.48 per passenger trip, is in a position consistent with that of its operating cost per hour, somewhat above the NTD median value of $9.07. Again the three other cities are clustered, in this case below the median, with Calexico at $8.04, El Centro at $7.47 and Brawley Dial-a-Ride at the lowest cost of $7.29 per passenger boarding, below the NTD median of $8.07 per passenger trip. These programs are running cost-effective services, compared to somewhat aged NTD cost information, running near or below the median.

For the countywide service, AIM Transit at $22.58 is almost $10 above the NTD median per trip cost of $13.36. It is however well below the NTD maximum of $68.14 per trip cost and therefore seems reasonably well positioned as a cost for services within a large county and comparing 2007 cost data to FY 2009-10 experience.

For multi-county service, Med-Express at $32.73 is between the median and the maximum values. Again, this likely reflects, in part the length of its trips from Imperial County into and around San Diego County as well as the older cost data. It appears to be a reasonable cost, although still an expensive service on a unit cost basis.

Figure 4-44: Peer Analysis Cost per Passenger Trip



Note: TCRP Report 136, 2007 Rural NTD data analysis for Demand Response only systems.

Passengers per Revenue Hour

Figure 4-45 presents the final performance measure contrasting Imperial County demand responsive services with the TCRP Report #136 national norms, passengers per hour. Passengers per hour is a productivity measure relating the quantities of service available to the numbers of riders using the service. As this indicator does not directly involve cost, it is not impacted by the 2007 age of the national data.

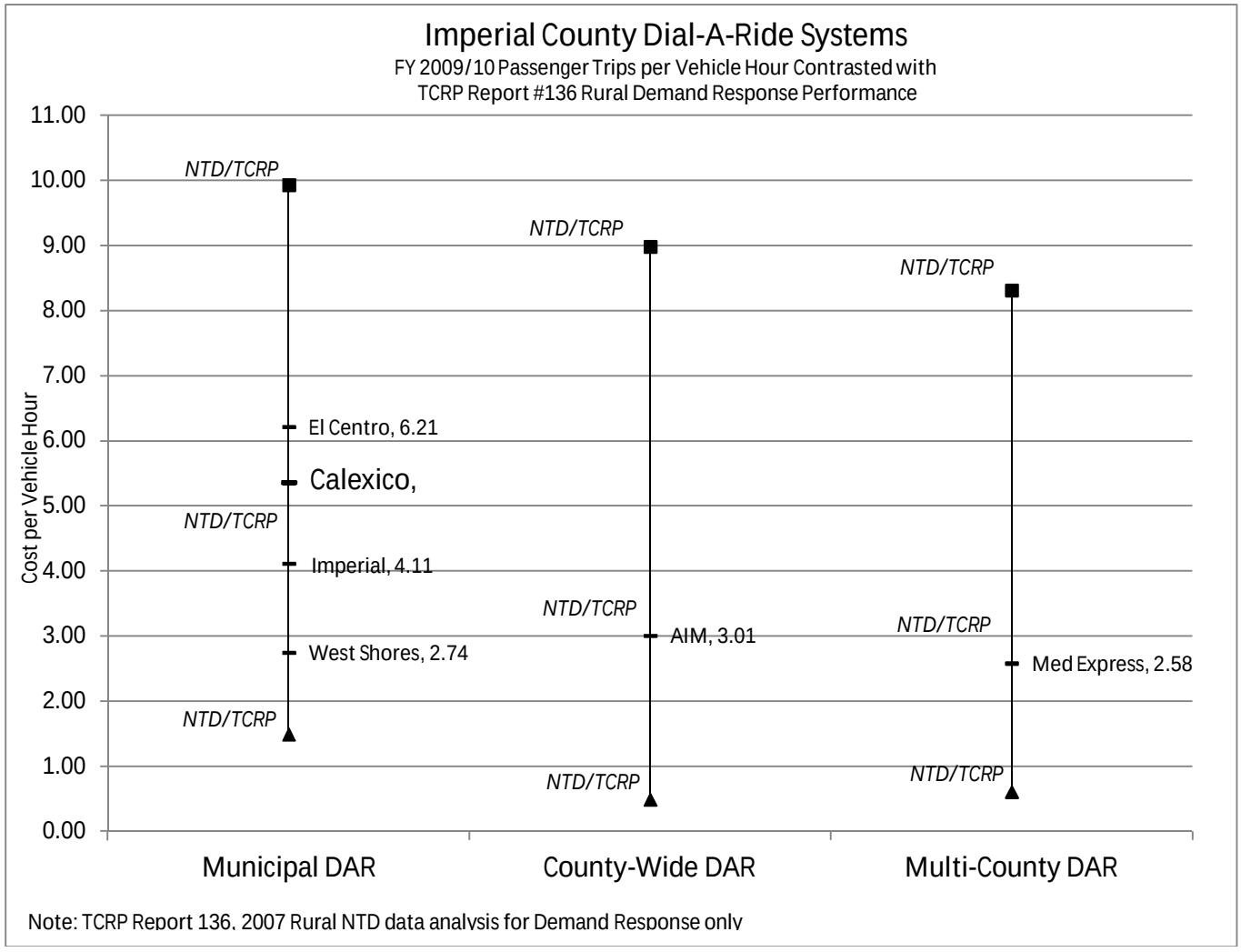
For the municipal dial-a-rides, the services in El Centro at 6.2 riders per hour, Calexico at 5.36 and Brawley at 5.35 are all operating above the median NTD value of 4.10, providing more passenger trips per hour than those in the national sample's mid-range for this type of service. Such measures of five and six riders per hour, for community dial-a-ride services, is very good performance.

Of these municipal services, the West Shores Dial-a-Ride's productivity is the lowest of the group, at 2.74 passengers per hour. Coupled with its placement at the highest levels, at or above the NTD maximum values for cost per hour and cost per trip, these indicators suggest that the current service configuration is not working.

For the county-wide dial-a-ride, AIM Transit's measure of 3.01 passengers per hour, just below the NTD median of 3.13 passengers per hour is very good. Notably AIM Transit, now IVT Access, is an ADA complementary paratransit program and must comply with all the attendant federal regulations. Many ADA complementary paratransit programs struggle to achieve productivities of 1.5 to 2.0 passengers per hour. AIM Transit has shown increasing productivity levels over the five-year period reported earlier in this section, although it dropped just below 3.0 in the 2009 calendar year.

The multi-county service, Med-Express, at 2.58 passengers per hour falls just below the NTD median value of 2.91. Its historical productivity experience, as reported earlier in this subsection, is somewhat uneven, dropping to a little above two passengers per hour at several points in the past few years, though at 3.1 and 2.9 for other six-month periods. These data point to the complexities of efficient scheduling of long-distance, non-emergency medical trips where the volume and geographic dispersion of trips is changeable and difficult to predict.

Figure 4-45: Peer Analysis Trips per Vehicle Hour



4.2.5 Summary of Demand Response Service Performance

Demand response performance is summarized in Table 4-15 for the seven systems against the four primary indicators discussed earlier in this chapter.

Table 4-15: Summary of Demand Response Service Performance

Imperial County Demand Response Programs	FY 2009-10 Actual Performance			
	Productivity	*Cost Effectiveness*		
	Passengers per Hour	Cost per Passenger Trip	Cost per Revenue Hour	Farebox Recovery
AIM Transit	3.2	$22.67	$67.89	9.6%
Med-Express	2.9	$31.77	$84.51	19.7%
Brawley Dial-a-Ride	5.5	$7.44	$39.01	12.1%
Calexico Dial-a-Ride	5.5	$7.83	$43.13	10.3%
El Centro Dial-a-Ride	6.5	$7.50	$46.40	16.5%
Imperial Dial-a-Ride	5.5	$7.83	$59.54	10.3%
West Shores Dial-a-Ride	3.0	$38.40	$110.83	5.2%

In terms of productivity, the Med-Express service is the least productive, with 2.9 passengers per hour, consistent with the long distances this non-emergency medical transportation service travels between Imperial County and medical destinations in San Diego County. Given this, it is notable that Med-Express's productivity is not lower, suggesting it gains some efficiency through the careful routing of trips. AIM Transit (now IVT Access), the ADA complementary paratransit service, exceeds three passengers per hour, achieving a reasonable level of productivity for this type of service. AIM Transit/IVT Access serves what are often long trips, working within the ¾ mile corridors of the IV Transit fixed route network. The Brawley, Calexico and Imperial Dial-a-Rides are all hitting a very respectable level of 5.5 riders per hour. El Centro Dial-a-Ride's 6.5 riders per hour presumably reflects both the density of trips scheduled and their relatively short distances within the city limits. The West Shores Dial-a-Ride, like AIM Transit and Med-Express, carries only 3.0 passengers per hour, reflecting the long distances of these trips as well as the modest ridership levels it attains.

In terms of cost per passenger, the West Shores Dial-a-Ride has the highest unit cost, $38.40, which is also a measure of its comparatively low ridership against the number of hours of revenue service and its overall operating costs. Med-Express, at $31.77 per passenger, reflects its long-distance trips into San Diego County; however, its cost per passenger is below that of 2007 and 2008 levels, reflecting both decreases in operating costs as well as increased cost efficiency (particularly given a nearly five percent increase in vehicle service hours during FY 2009-10). The Brawley, Calexico, El Centro and Imperial Dial-a-Ride costs per passenger are all

clustered between $7.44 and $7.83, with Brawley reporting the lowest cost per passenger of all seven demand response programs.

In terms of cost per revenue hour, similar patterns are depicted. Again, the Brawley Dial-a-Ride has the lowest cost per revenue hour while the other municipal dial-a-rides fall generally within a range, although a much wider range than for cost per passenger. Calexico Dial-a-Ride at $43.13 per revenue hour and El Centro Dial-a-Ride at $46.40 per revenue hour are reasonably close to Brawley's $39.01 per revenue hour. The Imperial Dial-a-Ride has the highest unit cost among this group, at $59.54 per revenue hour. AIM Transit (now IVT Access) at $67.89 and Med-Express at $84.51 per revenue hour presumably reflect the performance standards with which the ADA complementary paratransit program and an inter-county regional dial-a-ride must conform. The $110 per hour commanded by the West Shores Dial-a-Ride is extremely high, particularly given that efforts to minimize deadheads have been reported by out-stationing the vehicle.

In terms of farebox recovery ratio, AIM Transit (now IVT Access) is hovering just below the state TDA-required minimum farebox recovery at 9.3 percent—efforts must be made to improve this. The West Shores Dial-a-Ride, at 5.2 percent farebox recovery, shows clearly that this service is not working effectively in its current configuration. All other services are exceeding the 10 percent minimum standard for demand response services and for rural transportation programs. Notably, the Med-Express service is reporting the highest farebox recovery ratio at 19.7 percent, reflecting a currently effective fare structure of $15 and $30 round trip fares for differing ridership groups and a $7 fare for accompanying attendants.

4.2.6 Key Findings for Demand Response Services

The analyses reported here raise various issues that will be subsequently addressed through the SRTP's recommendations. Among the general observations to be made are the following:

- Service guidelines vary considerably from operator to operator for similar services; there is also often a great amount of variation between contract standards and actual performance. ICTC has contractually established standards for the AIM Transit/IVT Access, Med-Express and West Shores services. The municipalities are not proactive in setting or monitoring standards for their contracted services (including the Brawley, Calexico, El Centro and Imperial Dial-a-Rides), and have not identified standards within their contract documents although there are references to ICTC-established standards. There will be value to reviewing demand response standards, considering establishing some common expectations countywide, as well as some variation by type of demand response service provided—e.g., ADA complementary paratransit versus inter-county non-emergency medical versus community-level general public dial-a-ride.

- Reporting between the demand response providers, the municipalities and ICTC has improved considerably over prior periods as much of the data presented was provided to the consultants through the ICTC offices. That said, there may be some additional reporting detail that would be of value to the operators to maintain, for example tracking information on late cancellations and additional detail on no-show trips.

- Reporting of vehicle hours and vehicle miles in the materials provided to the consultant team on behalf of these demand response providers did not clearly delineate *revenue* service from *overall* service, with the latter including deadhead. That said, most of the demand responsive contracts included a definition of the reimbursable hourly rate, referring to "vehicle service hours" or "revenue service hours" and excluding deadhead hours (i.e., the travel to and from the first stop and after the last stop). This is presumably being clarified by ICTC's triennial performance auditor in relation to utilization of these definitions in actual practice.

- Information regarding each demand response service should be easily available to the public, both online and in print. Currently, only a few of the demand response systems operating in Imperial County have electronic—or even print—materials available. These materials should include both fare and eligibility information, such as how seniors/disabled persons can become ADA certified. All information should be provided in both English and Spanish (as it currently is on www.ivtaccess.com) and should include contact information—for example, a telephone number—for more information, as well as instructions on how to book at trip.

- Service configuration and service design issues are noted in a couple of instances.
    - The West Shores service is operating at high costs with low productivity and difficulty meeting the farebox recovery standard, suggesting that alternative ways of meeting these very modest levels of demand are indicated. Replacement of the existing demand response service with a weekly fixed route lifeline service is one option for maintaining transit access in the area.
    - The Imperial and El Centro Dial-a-Ride services include some overlap—passengers on the Imperial Dial-a-Ride are often transported within and around El Centro. It is possible that some coordinated or consolidated service for these two programs could result in cost savings.
    - The Brawley Dial-a-Ride's high productivity combined with high rates of no-shows and cancellations suggest capacity issues. It may be worthwhile to review this service to determine whether it should be converted to a senior/disabled persons-only service.

- The Imperial Dial-a-Ride had recently come close to falling below the state's 10 percent minimum farebox recovery, suggesting fare increases or other operational changes may be needed. Similarly, the Calexico Dial-a-Ride has been above, below and at the state's 10 percent minimum farebox standard, which may suggest additional actions are required for it as well.

5.0 RECOMMENDATIONS

This document describes the recommendations made for the ICTC-sponsored fixed route and demand response transit services based on the data and analysis presented in the previous chapters. The recommendations are designed for implementation over the next five years, with some scheduled for the near term (during the first year or two), others for the mid-term (during the second and third years of the planning horizon) and others for a longer term (during the final four to five years of the planning horizon).

This chapter provides an assessment of needs and opportunities and initial concepts, followed by several recommendations for Imperial County's transit system. Included in this chapter are an in-depth description of the service recommendations with fixed route and demand response operating plans, followed by capital plan recommendations, a financial plan (focusing on operating cost and funding components), and an implementation plan covering the next five years.

5.1 Needs and Opportunities Statement

This section examines the results of the service evaluation, presented in the previous chapter, and determines some specific needs and opportunities for the ICTC-sponsored transit services in terms of how they may address the results of the service evaluation. These needs and opportunities are then used to help develop and shape the Short Range Transit Plan recommendations to be implemented over a five-year period from 2012 to 2016.

5.1.1 Summary of Key Points

Fixed Routes

This section provides a brief summary of key points from the service evaluation. These points provide the basis for the recommendations that follow. The recommendations will seek to address the following needs and opportunities:

- Routes 100/150, 50/200, 600/650 and IVC Express-Calexico represent the core of the system, serving the primary north-south corridor between Brawley and Calexico. These services carry nearly 90 percent of passengers using the system.

- Routes with lower ridership represent policy decisions to provide and promote mobility for other residents of the region.

- Circulator routes provide improved circulation within urban areas, allowing for the streamlining of other routes, and thus providing decreased headways and promoting an increased number of trips on the primary corridor routes through timed connections. These routes also reduce the need for general public dial-a-ride services in certain urban areas.

- The Direct and IVC Express services perform extremely well in terms of productivity and cost effectiveness.

- Brawley is partially served by fixed route service, with the remainder of the city relying on general public dial-a-ride service. Additionally, the Walmart in Brawley is a major generator that is currently not directly served by a fixed route.

- Calexico is partially served by ICTC-sponsored fixed route services, and dial-a-ride service is only available to senior and disabled passengers. However, some neighborhoods that are not currently served by IV Transit fixed routes have access to service by a private operator (i.e., Calexico Transit System).

- IV Transit performs well in terms of the number of passengers per unit of service provided and has shown improvement in several areas. Specifically, fixed routes serving Calexico have very high productivity and a propensity for overcrowding.

- IV Transit provides less overall service and serves fewer passengers than agencies in similarly-sized environments. This may be due in part to operating costs that are higher than those of its peer services.

- The cost of providing fixed-route transit service in Imperial County (e.g., IV Transit) is higher than in other counties in California and is increasing at a faster rate.

- Unlike all of its peer systems, the ICTC does not own the IV Transit fleet and the maintenance facility used by the operator; these factors are the most likely major contributors to IV Transit's relatively high hourly operating costs.

- IV Transit has managed to reduce its cost per passenger substantially while increasing farebox recovery, despite the increased cost of providing service. This is largely due to rapid growth in ridership while service levels have remained constant.

- IV Transit has substantially increased productivity in terms of both passengers per revenue mile and passengers per revenue hour.

Demand Response Services

Similar to the fixed routes, this section provides a brief summary of key points from the service evaluation for the demand response services, and these points provide the basis for the recommendations that follow. It is important to note that demand response services in Imperial County are provided in a significantly different manner than the fixed route services, with both an Americans with Disabilities Act-mandated complementary demand response service (i.e., IVT Access), as well as several other services in various communities providing demand response service to a variety of eligible client groups.

- The revision of several demand responsive performance standards should be given consideration, given the variability among the current standards between operators and the difficulty for many operators to meet some of the standards.

- Public information on demand response services, while improving on the Internet during the period in which this study is taking place, still requires consistent attention and focus.

- Continued attention to demand response service reporting is important. Concerns regarding the definitions of reporting data points continue; also important is the value

of routine reporting of operational facets that can contribute to cost-effective demand response services.

- The potential revision of the demand responsive standards would be included in the various contract documents for the demand responsive services. However, although the demand responsive standards and guidelines are tools which can help measure system performance, they should be modified only if the discrepancies between the guidelines and the actual performance are consistently and significantly different, and without disregarding the intent of the standard.

- Historically, the coordination of demand responsive services has been limited and happened somewhat informally, typically as an initiative of one or more of the several contractors. Recently, the pursuit of a more coordinated paradigm for the provision of demand responsive service is being pursued. Although the opportunities for the actual coordination or consolidation of services may be somewhat limited (i.e., there is limited contiguous, overlapping or clearly duplicative service, with the exception of the Imperial and El Centro Dial-a-Rides), the pursuit of a more coordinated service delivery model may likely provide efficiencies in other aspects of the system. For example, it is likely that the coordinated dispatching of trips amongst the various dial-a-rides would provide some efficiencies, as would the coordination of various "back office" functions such as procurement, maintenance, et cetera.

- Given mixed use of the Section 5310 capital program by the demand response programs operating in Imperial County, a countywide program for demand response capital replacement to better utilize the advantageous local match of the 5310 program's most recent cycle should be considered.

- The West Shores Dial-a-Ride's high operating costs and low productivity points to the importance of developing a more cost-effective solution to providing lifeline transportation service to this area of the county in the long term.

- Imperial Dial-a-Ride and El Centro Dial-a-Ride have some overlapping service areas and may benefit from coordinated or consolidated service delivery.

- Brawley Dial-a-Ride's high rates of cancellation and no-show trips suggests possible capacity problems, with riders locating alternative rides possibly due to late service or other issues around how riders use the service.

- Historically – and particularly prior to the recent efforts to pursue a more coordinated service delivery model – costs have continued to increase with regards to the provision of demand responsive services under the countywide Americans with Disabilities Act

(ADA) complementary paratransit program (i.e., formerly known as AIM Transit and now known as IVT Access). This points to the importance of pursuing demand management and growth management strategies, so as to contain the increase in costs as much as practically possible. Such strategies include functional certification (where the need for ADA eligibility is tested and verified by the paratransit operator, without sole reliance on the client's physician for the certification) or conditional eligibility (where clients may be eligible for demand response service only if certain conditions are met - for example, if the temperature exceeds a certain threshold).

5.1.2 Strengths and Opportunities

This section discusses opportunities for both the fixed route and demand response transit services in Imperial County, including improvements to the existing route and fare structures, the relationship of the demand response to fixed route services, service frequency and span, and other issues. It identifies strengths, weaknesses, duplications and unmet needs given the existing transit service. Possible service types are named, followed by some initial concept plans that will be further refined in the subsequent recommendations section.

Fixed Routes

IV Transit's route structure is generally strong, focusing on providing service to the primary corridor area (spanning Calexico, Heber, El Centro, Imperial, IVC and Brawley), where a majority of trips are taken. Additional service is provided to outlying areas on a less frequent basis, supported by policy decisions regarding overall mobility within the county. Deviated "lifeline" service, operating one day per week, extends mobility to many rural communities throughout the county.

The fare structure is simple and logical with lower fares for local routes and higher fares for premium ("express" or "Direct") services, with seniors, disabled persons and students eligible for discounted fares (for students on IVC Express routes only). These discounts are available all day, and not solely during the during the peak periods (as required by the FTA for seniors/disabled people). One drawback to the current fare policy is the lack of free transfers between the circulators and main line routes, which may discourage some passengers from making trips that involve transferring between the different service types—this may ultimately be limiting ridership on the circulators, the main line routes, or both.

Some areas lacking fixed route service—namely portions of Brawley—are served by a general public demand response service, or dial-a-ride instead. However, portions of Imperial are not served by fixed route transit (and demand response transit service is available only to senior/disabled passengers) and much of Brawley is only served by the general public Brawley Dial-a-Ride. While Routes 100/150 and IVC Express-Calexico follow a terminal loop serving part of Calexico, a large proportion of the city is not served by IV Transit fixed routes. With the Calexico Dial-a-Ride limited to senior/disabled passengers, this means that much of the city is not accessible to the general public via IV Transit. (However, parts of Calexico are served by private operator Calexico Transit Service, but this operator requires a separate fare.)

Transfer terminals are either available or under construction in each of the major cities (El Centro, Calexico, Brawley, Imperial) and at the Imperial Valley College. Timed transfers are available between the intercity routes and Blue and Green Line circulators at IV Transit's main transfer terminal in El Centro, located at 14th and State Streets (soon to be moved to a new location at 7th and State Streets). If implemented, timed transfers would be available between new circulator routes and existing intercity routes at the transfer terminals in Brawley, Imperial

and Calexico—currently, such transfers are available between dial-a-ride services and intercity routes at these locations for some passengers.

With regard to frequency and span of service, IV Transit currently operates fixed route service six days per week with a maximum frequency of every 70 minutes. Service on Saturdays is less frequent than that operated on weekdays, and is more limited in span (i.e., the hours during which service is offered). There is currently no Sunday service. Both the public outreach process conducted as part of this study and the Unmet Needs process have shown that numerous passengers have requested an increase in the span of service for Saturday, as well as for the introduction of Sunday service. Additionally, crowding on some routes indicates a demand for increased frequency—likely to every 60 minutes on the busiest routes.

Generally, service in Imperial County covers the urban areas of the county as well as most major generators and employers. The introduction of circulator services in the cities will help in better serving the major generators in those locations—such as the Walmart in Brawley; additionally, some new development that is proposed for the county is located near existing routes, where a stop could be added—such as the proposed Manzanita Casino in Calexico.

Information regarding the fixed routes is provided in bilingual format to the public via a website (www.ivtransit.com) and in booklet form (*Rider's Guide*). Currently, these materials leave out the Blue and Green Lines (which have separate fliers), but are scheduled to include those in the future—the website is scheduled to undergo renovation. No system map is provided to the public and bus stop signage design varies somewhat depending on location—generally, no route, schedule or contact information is provided at bus stops.

Currently, different operators are responsible for the fixed route services and the numerous demand response services in the county, with the municipalities adding an additional layer of oversight to local dial-a-ride services. In addition, the circulators operate under a separate contract from the other fixed routes. This leads to some level of complication in both public information and regarding operations—information is spread across several websites, and the fare system is not fully integrated (e.g., there are free transfers between most fixed routes but not between fixed routes and circulators). There is also some overlap in service between the fixed routes and dial-a-ride programs that likely should be shifted to the fixed routes where possible (not to mention the overlap between the ADA paratransit service and dial-a-ride services, as mentioned in the subsequent demand response strengths and opportunities). The SRTP provides an opportunity to improve public information and consider better coordination between operators/services.

Demand Response Services

Imperial County's demand responsive services have evolved to meet varying rider needs and serve most of the county's populated areas. The three types of services that exist reflect differentiated service structures responsive to need: 1) regional trip-making for ADA-certified persons who cannot use IV Transit fixed routes; 2) a regional non-emergency medical service that travels into the next county; and 3) five community-level dial-a-rides providing intra-city trips for individuals who need curb-to-curb service. This service structure, evolving to address both local and regional trip requirements, is a solid service design and – in the case of the non-emergency service – reflects creative achievement. Many counties strive without success to construct the type of non-emergency medical service represented by Med-Express.

All services except the West Shores Dial-a-Ride are achieving the mandatory Transportation Development Act (TDA) minimum farebox recovery standards, with the Med-Express returning the highest level (i.e., almost a 20 percent farebox return). However, the relationship between contractual standards (where these are stated) and actual performance is weak for most of the municipal operators. Other important types of performance, such as productivity, are not addressed in any of the contracts.

Although trip consolidation may not always be possible due to the geographical separation of some of the dial-a-ride programs, consolidation of the demand response services may provide other opportunities for coordination and the realization of efficiencies that are beyond these service area issues, including functions such as administration, maintenance and dispatch.

5.2 Recommendations Overview

This section outlines recommendations for ICTC-sponsored transit services in Imperial County, including the fixed routes (IV Transit) and demand response services (IVT Access, Med-Express and the five dial-a-ride services—Brawley, Calexico, El Centro, Imperial and West Shores). Recommendations span five different time periods: Phase One recommendations are intended for implementation within one or two years of adoption of the SRTP, Phase Two recommendations are intended for implementation in two or three years and Phase Three recommendations are intended for implementation in three to five years. Additional proposals are slated for potential further study in Future Phases/Feasibility Studies, to be implemented after the five-year scope of the SRTP. Additionally, a few ideas are proposed for possible inclusion in a future version of Imperial County's *20-Year Transit Vision*,[4] pending additional growth of population, transit service and the availability of funding within the county.

Following the recommendations, a capital plan is outlined that would take into account the recommended operating changes and their impact on the number of vehicles required to provide service. A financial plan is also presented, summarizing operating and capital costs and revenues for the next five years. Finally, an implementation summary is presented showing each phase and its associated impacts.

One of the Phase One proposals involves the re-numbering of IV Transit's fixed route system. For the sake of simplicity, this numbering system is outlined below and will be utilized for the remainder of this document. With the exception of the circulator routes, the scheme is directionally based, with routes ending in "1" serving areas south of El Centro, "2" serving areas north of El Centro, "3" serving areas east of El Centro, and "4" serving areas west of El Centro. Routes that skip El Centro and/or do not fit into any of the above categories use numbers ending in "0".

Intercity routes, which form the basic spine of the IV Transit system in the Primary and Secondary Corridor Zones, are designated with single-digit numbers. Circulators retain their current nomenclature (colors), but for internal reporting purposes would comprise Routes 10 through 15. IVC Express routes, which operate express service between Calexico and IVC and between Brawley, Westmorland, Calipatria, Niland and IVC, utilize numbers in the 20 series and are designated Route 21 (IVC-Calexico) and Route 22 (IVC-Niland). Lifeline routes, which operate one round-trip per week, utilize numbers in the 30 series and are designated 32 through 34 (e.g., Brawley-Bombay Beach, El Centro-Winterhaven and El Centro-Ocotillo, respectively). Direct routes, which travel "directly" between two points (with no intermediate stops), utilize numbers in the 40 series, with Route 40 operating between Brawley and Calexico; the proposed Route 43 would operate between El Centro and Winterhaven/Yuma. Finally, "Fast" routes, which provide limited-stop service, would utilize numbers in the 50 series, with Route

[4] Most recently produced by Meyer, Mohaddes Associates, Inc. in November 2000.

51 proposed to operate between El Centro and Calexico, and Route 52 currently operating from Brawley to El Centro with service proposed for the reverse direction.

The proposed route nomenclature, including current and proposed routes (in all proposed implementation phases), is shown in Table 5-1 below.

Table 5-1: Proposed Route Nomenclature

Route Type	Routes
Intercity Routes	Route 1 (El Centro-Calexico) Route 2 (El Centro-Brawley/Niland) Route 3 (El Centro-Holtville/Winterhaven) Route 4 (El Centro-Seeley/Ocotillo)
Circulators – retain current nomenclature	Blue Line – El Centro counterclockwise loop (Route10) Green Line – El Centro clockwise loop (Route 11) Gold Line – Brawley Circulator (Route 12) Red Line – Imperial Circulator (Route 13) Orange Line – Calexico Circulator – *in Phase 3* (Route 14) Purple Line – Imperial/IVC/El Centro Connector – *in Phase 3* (Route 15)
IVC Express Routes ("2x")	IVC Express Route 21 (IVC-Calexico) IVC Express Route 22 (IVC-Niland)
Lifeline Routes – when operating as a separate route ("3x")	Route 32 (Brawley-Bombay Beach) Route 33 (El Centro-Winterhaven) Route 34 (El Centro-Ocotillo)
Direct (Nonstop) Routes ("4x")	Direct Route 40 (Brawley-Calexico) Direct Route 43 (El Centro-Winterhaven/Yuma) – *in a Future Phase*
Fast (Limited-Stop) Routes ("5x")	Fast Route 50 (California Route 111 Corridor) – *in the Long-Term Vision* Fast Route 51 (El Centro-Calexico) – *in Phase 3* Fast Route 52 (El Centro-Brawley) – *bi-directional service in Phase 2*

5.3 Fixed Route Recommendations

Following are the recommendations emanating from the SRTP process for IV Transit's fixed route system. Phases One, Two and Three (i.e., each representing years 1 to 2, 2 to 3 and 4 to 5, respectively) are included in the following capital, financial and implementation plans, while the Future Phases and Long-Term Transit Vision recommendations are presented in a more general sense, with further study recommended.

The proposed fixed route system, reflecting the implementation of all Phase One, Two and Three recommendations, is shown in Figures 5-1 (for the weekday system), 5-2 (for the Saturday system) and 5-3 (for the Sunday system) on the following pages. Estimated order-of-magnitude ridership changes are included for service improvements for which a change in ridership is anticipated. All cost estimates are based on FY 2010-11 fully-allocated costs (operation, vehicles, fuel and marketing) of $119.24 for regular fixed routes and $86.25 for circulators. All recommendations are provided with goal of reducing IV Transit's pulse to 60-minutes—this includes modifications to existing Routes 1-3 and the Blue and Green Lines in order to allow for 60-minute headways or timed transfers with routes operating every 60 minutes, and new circulators (and the Purple Line) are proposed to have 60-minute cycle times.

Figure 5-1: Proposed Weekday System

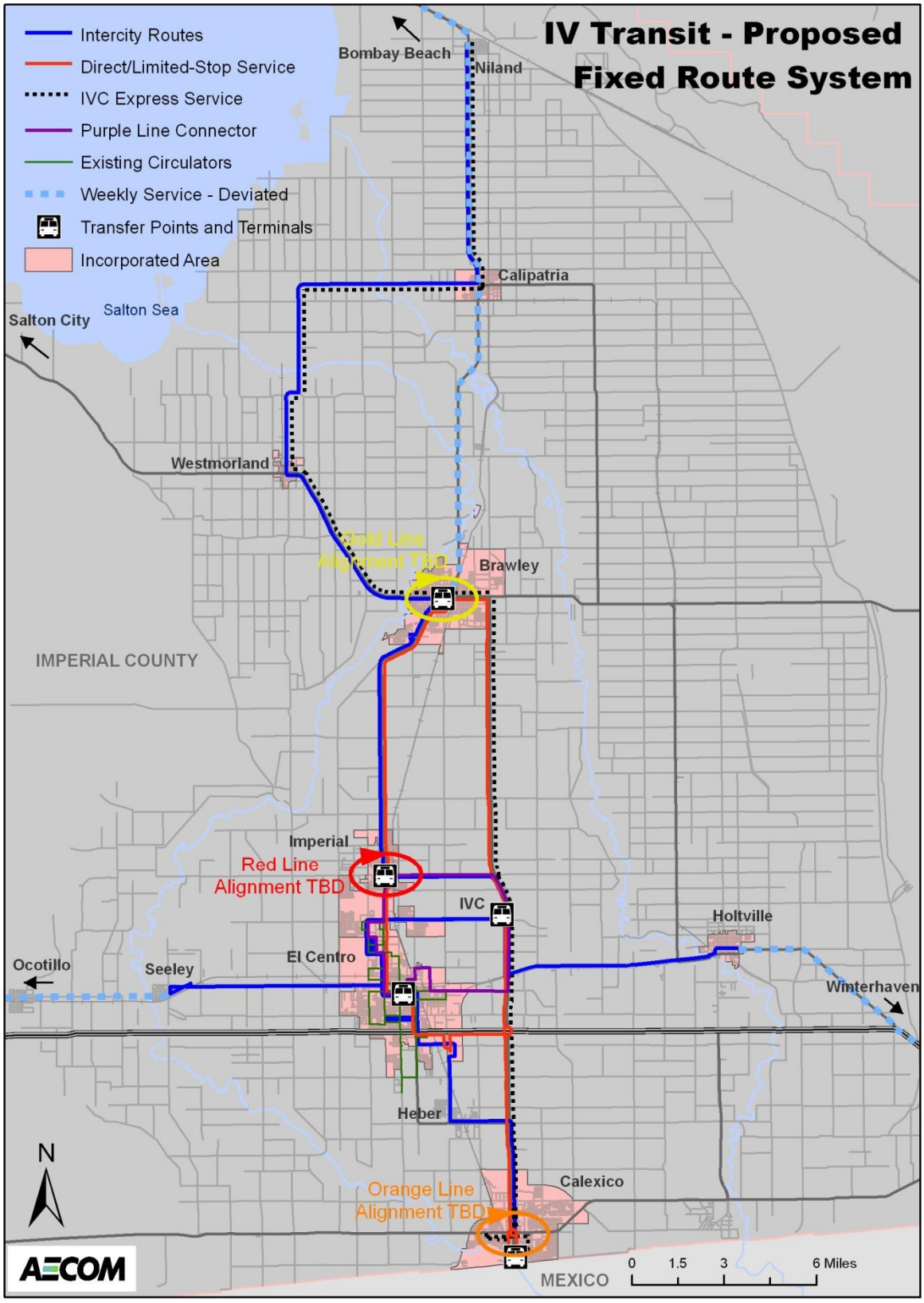


Figure 5-2: Proposed Saturday System

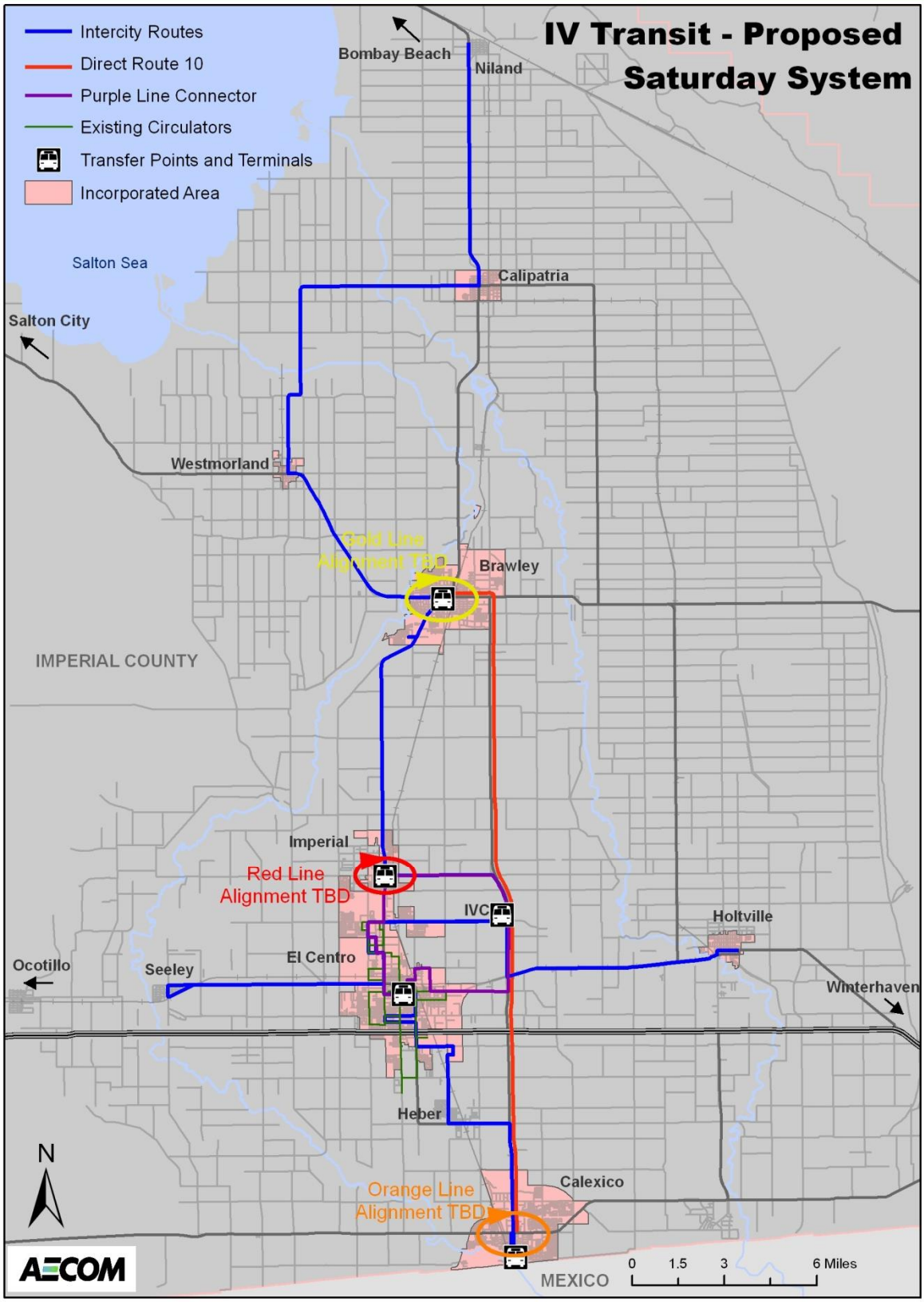
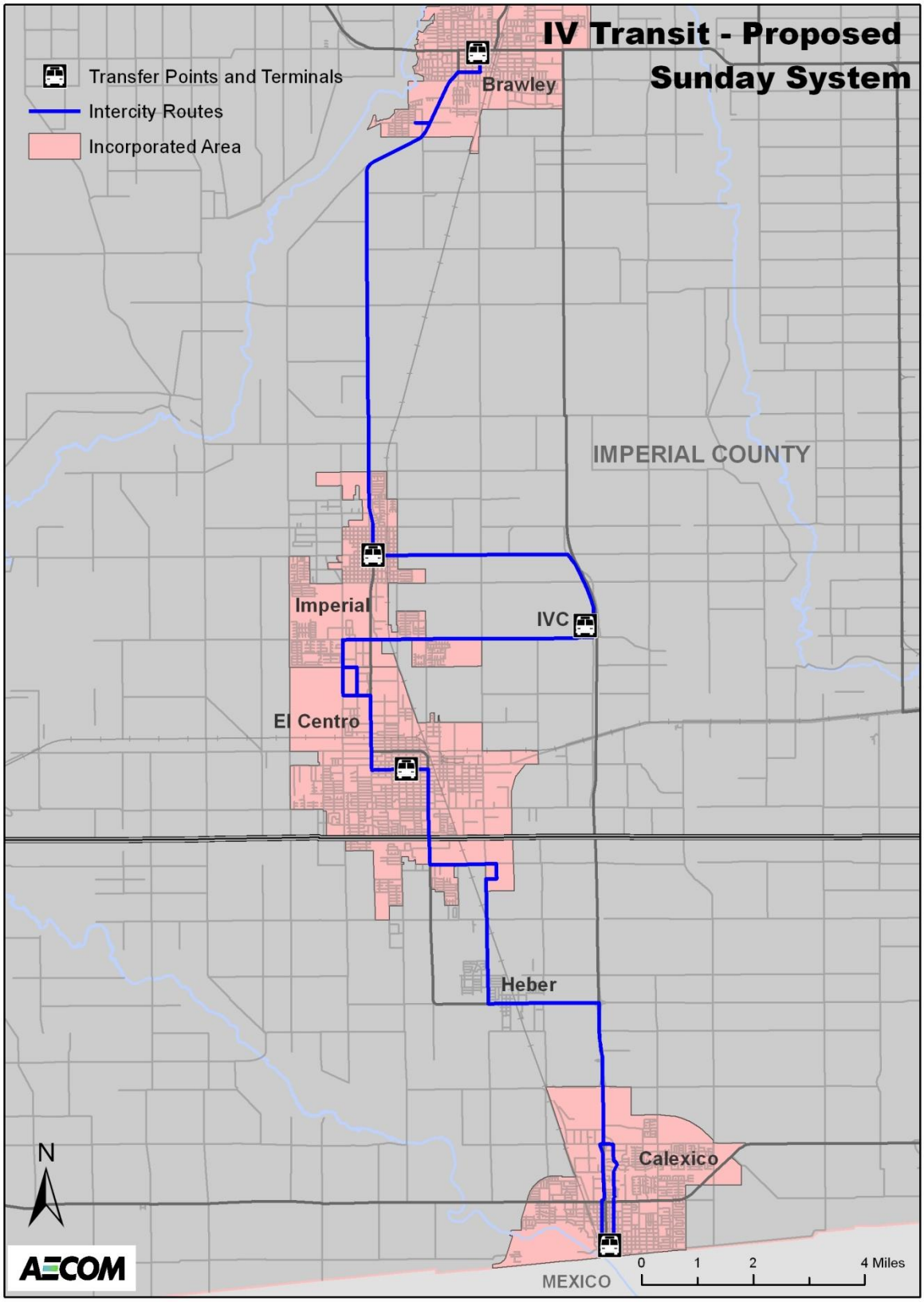


Figure 5-3: Proposed Sunday System



5.3.1 Phase One (1 to 2 Years)

Expansion of Saturday Service on Routes 1 and 2

- Estimated Cost of Improvement (annual) $217,016
- Estimated Change in Ridership (annual) 17,204
- Estimated Change in Revenue Hours (annual) 1,820

One of ICTC's top priorities for near-term service improvement is the expansion of Saturday service. In Phase One, Saturday service on Routes 1 and 2 (between Calexico and Niland) would be expanded to match the frequency of weekday service. Additionally, Saturday service would be implemented on Direct Route 40 between Brawley and Calexico. Further expansion of Saturday service is planned for Phases Two and Three. In Phase One, 35 additional hours of service would be operated each Saturday. The increased cost of the service would be $4,174 per Saturday, or $217,016 annually. Table 5-2 shows the revenue hours and cost of the proposed increases to Saturday service.

Table 5-2: Proposed Saturday Service Increase – Hours and Cost Phase One

Route	Current Revenue Hours	Current Cost	Phase One Revenue Hours	Phase One Cost
Intercity Route 1 (El Centro-Calexico)	13	$1,550	26	$3,100
Intercity Route 2 (El Centro-Niland)	22	$2,623	38	$4,531
Intercity Route 3 (El Centro-Holtville)	5	$596	5	$596
Intercity Route 4 (El Centro-Seeley)	3	$358	3	$358
Direct Route 40 (Brawley-Calexico)	0	$0	6	$715
Saturday Total	**43**	**$5,127**	**78**	**$9,301**
Annual Total (52 Saturdays)	**2,236**	**$266,621**	**4,056**	**$483,637**

Estimated based on public timetables, assuming cost per hour of $119.24 (FY 2010-11 average).

Introduction of Sunday Service

- Estimated Cost of Improvement (annual) $173,613
- Estimated Change in Ridership (annual) 14,032
- Estimated Change in Revenue Hours (annual) 1,456

In addition to an increase in Saturday service, limited Sunday service is also proposed, in accordance with comments made during the public involvement phase of the SRTP and the Unmet Needs process, as well as the long-term goals and vision of ICTC. On Sundays, a base level of service would operate on Routes 1 and 2 in the Primary Corridor Zone (between

Calexico and Brawley), with the same frequency as currently operates on Saturdays. With 28 revenue hours added per Sunday, the increased cost of service would be $3,339 per Sunday, or $173,613 annually. Table 5-3 below shows the revenue hours and cost of the proposed Sunday service.

Table 5-3: Proposed Sunday Service Increase – Hours and Cost

Route	Phase One Revenue Hours	Phase One Cost
Intercity Route 1 (El Centro-Calexico)	13	$1,550
Intercity Route 2 (El Centro-Niland)	15	$1,789
Sunday Total	**28**	**$3,339**
Annual Total (52 Sundays)	**1,456**	**$173,613**

Estimated based on public timetables, assuming cost per hour of $119.24 (FY 2010-11 average).

Implementation of Brawley Circulator

- Estimated Cost of Improvement (annual) $285,919
- Estimated Change in Ridership (annual) 9,997
- Estimated Change in Revenue Hours (annual) 3,315

In accordance with both the goals and objectives of this SRTP process – as well as with the *Imperial County 20-Year Transit Vision*[5] – it is recommended that circulators eventually be implemented in Brawley, Calexico and Imperial. The study team concurs with the views laid out in the *Imperial County 20-Year Transit Vision*; additionally, the operation of circulator services will allow for greater transit coverage within the major cities as well as allow for the eventual streamlining of the primary Intercity Routes so as to allow them to operate trunk line services more frequently.

It is proposed for the next circulator to be implemented in Brawley (the proposed Gold Line) in Phase One. This circulator would supplement the intercity service on Routes 2, providing improved service coverage for fixed-route transit in the City of Brawley, with access to a greater number of destinations and residents. The route should be timed to connect with the intercity routes as closely as possible, in a manner similar to how the Blue and Green Lines currently meet the bus pulse in El Centro. In Brawley, the circulator would connect with Intercity Route 2, Direct Route 40, Fast Route 52 and the IVC Express Route 22 at the planned transfer point at South Plaza Street and C Street. The precise alignment of the Gold Line will be determined in a separate *Circulator Study* planned by the ICTC. The route should be designed to operate on a

[5] Meyer, Mohaddes Associates, Inc., November 2000.

60-minute headway so as to meet the 60-minute pulse proposed for the Intercity Routes in Phase Three. In the short-term, an additional 10 minutes will be available for layover as the current headway on the Intercity Routes is 70 minutes. When 60-minute headways are implemented on the Intercity Routes, the layover on the Gold Line will simply be reduced by 10 minutes in order to achieve a 60-minute cycle time.

Service would operate from 6:00AM to 7:00PM Monday through Friday, the same hours as the Green and Blue Lines currently operate. The approximate total cost for implementing the new Gold Line would be $1,121 per weekday, or $285,919 annually. The revenue hours and cost of service for the Gold Line is shown in Table 5-4 below. Implementation of the Gold Line will allow for the straightening of Route 2 through Brawley, which would provide some cost savings that would be used to offset the cost of implementing the Gold Line.

Table 5-4: Revenue Hours and Cost for Gold Line Circulator

Route	Phase One Revenue Hours	Phase One Cost
Gold Line Circulator (Brawley)	13	$1,121
Annual Total (255 weekdays)	**3,315**	**$285,919**

Estimated based on public timetables, assuming cost per hour of $86.25 (FY 2010-11 average).

Implementation of Imperial Circulator

- Estimated Cost of Improvement (annual) $285,919
- Estimated Change in Ridership (annual) 7,574
- Estimated Change in Revenue Hours (annual) 3,315

In addition to the Gold Line in Brawley, it is proposed that a new circulator is also implemented in Imperial (the proposed Red Line) during Phase One. This circulator would supplement the existing service on Routes 2 and 3, increasing fixed-route service to cover most of the City of Imperial. The Red Line should be timed to connect with the intercity routes as closely as possible, in a manner similar to how the Blue and Green Lines currently meet the bus pulse in El Centro. The Red Line would operate the same hours and days as the other circulators (6:00AM to 7:00PM Monday through Friday), connecting the proposed transfer terminal in Imperial with housing, shopping and employers throughout the city, and would have connections with Intercity Route 2, Fast Route 52, and potentially Intercity Route 3 and the Blue and Green Lines. The precise alignment of the Red Line will be determined in a separate *Circulator Study* planned by the ICTC. As with the Gold Line, the Red Line should be designed to operate on a 60-minute headway so as to meet the 60-minute pulse proposed for the Intercity Routes in Phase Three.

The approximate total cost for implementing the Red Line would be $1,121 per weekday, or $285,919 annually. The revenue hours and cost of service is shown in Table 5-5 below.

Table 5-5: Revenue Hours and Cost for Red Line Circulator

Route	Phase One Revenue Hours	Phase One Cost
Red Line Circulator (Imperial)	13	$1,121
Annual Total (255 weekdays)	**3,315**	**$285,919**

Estimated based on public timetables, assuming cost per hour of $86.25 (FY 2010-11 average).

Realignment of Route 2 in Brawley

- Estimated Cost of Improvement (annual) NO ADDITIONAL COST
- Estimated Change in Ridership (annual) NO ADDITIONAL RIDERSHIP
- Estimated Change in Revenue Hours (annual) NO ADDITIONAL HOURS

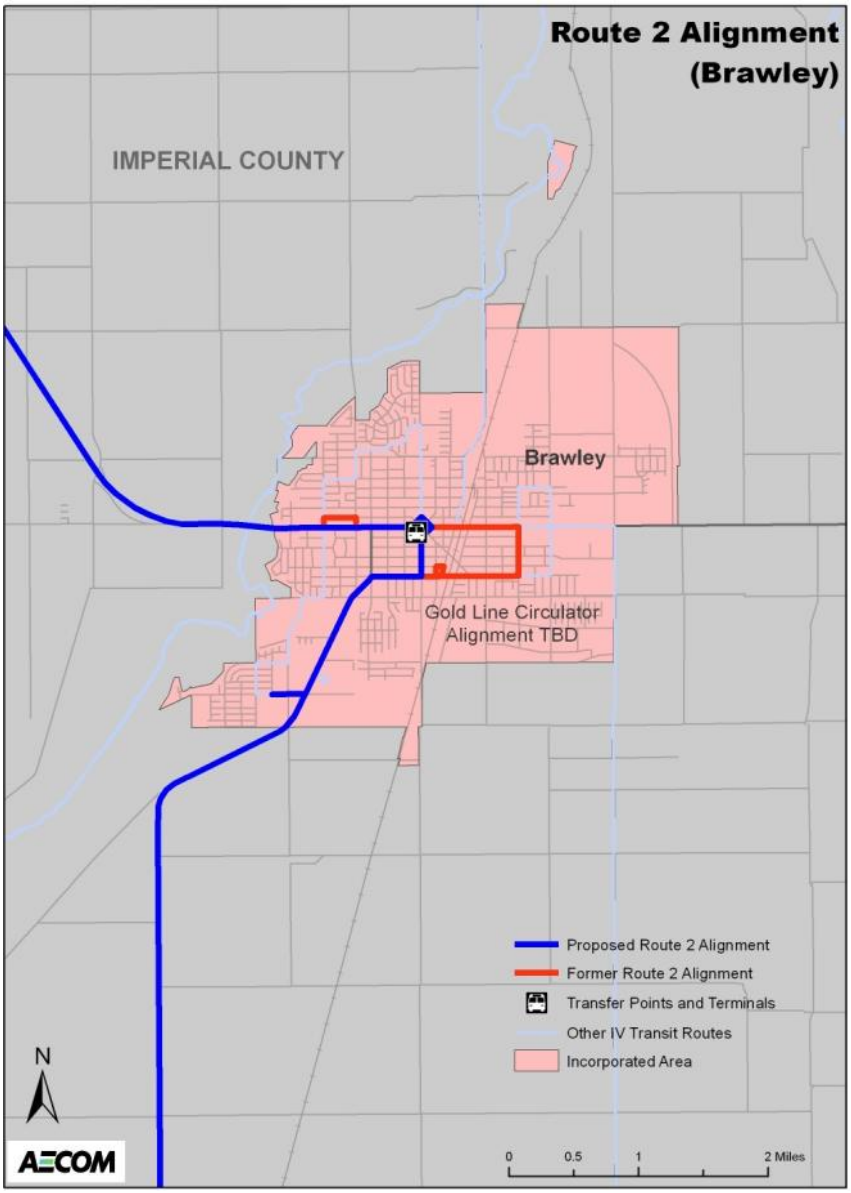
In concert with the implementation of the Brawley Circulator, Route 2 can be re-aligned through the City of Brawley, as service east of Imperial Avenue will be covered by the new Gold Line. This realignment will shorten Route 2 so that 60-minute headways will be possible, in preparation for reducing the system's pulse to 60 minutes in Phase Three of this plan. As not all routes will have headways reduced to 60 minutes in Phase One, initially the re-alignment of Route 2 will provide for additional layover time in order to continue meeting the pulse in El Centro every 70 minutes[6]. Once realignments to Routes 1 and 3 have been implemented in Phase 3 reducing headways on those routes to 60 minutes, Route 2 can begin operating every 60 minutes.

This adjustment would save 1.7 miles in each direction, or 8 minutes at an average speed of 12 miles per hour. Additionally, with the relocation of the Brawley Transfer Terminal to South Plaza Street, Route 2 trips that short-turn in Brawley would save 2.4 miles in each direction due to the combined elimination of service east of Imperial Avenue and a truncation of the short-turn to the new Transfer terminal, saving approximately 12 minutes given an average speed of 12 miles per hour. Any savings from this route adjustment will be used to offset the cost of Brawley's Gold Line circulator.

Figure 5-4 shows the proposed route realignments for Route 2.

[6] Currently, Routes 1 through 4 and the Blue and Green Lines converge at the transfer terminal in El Centro every 70 minutes, facilitating transfers between routes. This convergence is known as a "pulse". Phase Three of this plan includes a recommendation to reduce the pulse from every 70 minutes to every 60 minutes, thus over the course of this plan the running time of each route (in this instance, Route 2) is reduced to allow for this future change.

Figure 5-4: Proposed Route 2 Realignment



Continue Use of "Shadow Buses" on Calexico Routes

- Estimated Cost of Improvement (annual) NO ADDITIONAL COST
- Estimated Change in Ridership (annual) NO ADDITIONAL RIDERSHIP
- Estimated Change in Revenue Hours (annual) NO ADDITIONAL HOURS

Currently, "shadow buses" (or "second sections" in the operating schedule) are used on the Calexico routes (Intercity Route 1 and IVC Express Route 21) at times when crowding is anticipated to be a problem. These two routes often exceed the scheduled vehicle capacity, particularly during certain times of the year (such as at the beginning of the semester at IVC), and without "shadow buses" some passengers would be left waiting at the curb. Continued provision of the "shadow buses" will provide a foundation for the service increases on these routes proposed for Phase Two, but ensuring that ridership demand can continue to grow without the constraint of space onboard a single vehicle (per trip). This recommendation does not represent a change in cost, ridership or hours to the current system, although if ridership continues to grow additional "shadow bus" trips may be required.

Fare Increase

A fare increase has already been proposed[7] for IV Transit for July 1, 2012 or July 1, 2013. It is recommended that this increase be implemented to help offset IV Transit's operating costs. In future fare discussions, other factors that should be considered include:

- Free transfers between the Intercity Routes and the existing and proposed circulators to encourage trips that include both services. With the implementation of the circulators and the eventual alignment modifications to the Intercity Routes, some one seat rides will require a transfer between the two route types.

- A review of charging a premium fare for requesting route deviations.

An increase in the one-zone base fare from $0.75 to $1.00 (33 percent) and an increase in the regional base fare from $1.00 to $1.25 (25 percent) could decrease annual ridership by approximately 26,500 riders (3.9 percent); however, the decrease in ridership in response to the fare increase would likely be offset by the steady year-over-year ridership growth of the system.

Route Numbering

The proposed route nomenclature change (described previously) is recommended for implementation within Phase One in order to minimize passenger confusion when other service changes take place.

[7] Fare increases were proposed in the *Public Transit Services Fare Analysis* completed by Nelson\Nygaard in June 2008.

Public Information

Information regarding all of the transit services provided by ICTC should be available both on the Internet and in a hard-copy format (such as the current *Rider's Guide*). While these materials already exist, we recommend that both the website (which is currently being updated) and the *Rider's Guide* include all information currently provided (routes, route maps, schedules, fare and rider information, et cetera) and the following:

- System map
- Information regarding circulators that is in line with what is provided for other routes
- Clear information on "Lifeline" routes in the bus book

Signage and Branding

All of the vehicles used on the fixed routes in the IV Transit system – including any smaller vehicles used on the circulators – should be "branded" with the same logos and paint schemes so as to more clearly identify the transit system and give all of the disparate elements of the system a more cohesive identity. This will also further the sense that the IV Transit system is a county-wide system.

For the same reasons, the design of bus stop signs should be standardized throughout the county, so that riders can always consistently identify a bus stop even if they are in an area they do not normally travel in. It is recommended that one standard bus stop sign be used; its elements should include the following:

- the system name or logo (IV Transit);
- a clear indication that the sign designates a bus stop;
- contact information (phone number and/or Internet address); and
- the routes serving the stop

The route numbers may be best shown using stickers, in order to provide flexibility for future service adjustments. In addition, if some type of real-time information text message system is implemented in the future that allows riders to know how much time remains until the next bus arrives at that stop, then a unique stop number should also be included on the bus stop sign.

Three examples of bus stop signs are shown in Figure 5-5, from the Lehigh and Northampton Transportation Authority (LANta); San Diego Metropolitan Transit System, and Greater Bridgeport Transit (GBT).

Figure 5-5: Bus Stop Sign Examples

Finally, it is also recommended that ICTC pursue a pilot program for providing Quick Response Codes (QR Codes) on bus stop signs along Intercity Routes 1 and 2, whereby passengers may scan the code with their smart phones or mobile devices and obtain real-time bus arrival and departure information.

Bus Stop Specification Handbook

It is recommended that ICTC pursue development of a bus stop specification and design handbook for local agencies. This policy development would include a formal memorandum of understanding (or a similar document) regarding duties and responsibilities of each agency and municipality regarding bus stop location, installation and maintenance. Such a handbook is integral to the development of the proposed circulators, so that the municipally-sponsored services maintain uniform signage with and are seen as a part of the overall "seamless" IV Transit system. This handbook should include bus stop sign specifications as described in the previous recommendation.

5.3.2 Phase Two (2 to 3 years)

Expansion of Saturday Service on Routes 3 and 4

- Estimated Cost of Improvement from Phase One (annual) $56,503
- Estimated Change in Ridership from Phase One (annual) 1,513
- Estimated Change in Revenue Hours from Phase One (annual) 520

In a continuation of both one of ICTC's top priorities, as well as responding to the desires voiced in the Unmet Needs process, Saturday service is proposed for additional expansion in the Secondary Service Zone in Phase Two. In Phase Two, Saturday service would operate on a weekday span and frequency on Routes 1, 2, 3 and 4 as well as Direct Route 40. From Phase One, this would include the expansion of Routes 3 and 4 to meet the weekday span and frequency. Each Saturday, 7 additional hours of service would be operated in addition to the Phase One service. The increased cost of the service would be $834 per Saturday, or $43,404 annually. Table 5-6 shows the revenue hours and cost of the proposed increases to Saturday service.

Table 5-6: Proposed Saturday Service Increase – Hours and Cost Phase Two

Route	Phase One Revenue Hours	Phase One Cost	Phase Two Revenue Hours	Phase Two Cost
Intercity Route 1 (El Centro-Calexico)	26	$3,100	26	$3,100
Intercity Route 2 (El Centro-Niland)	38	$4,531	38	$4,531
Intercity Route 3 (El Centro-Holtville)	5	$596	10	$1,192
Intercity Route 4 (El Centro-Seeley)	3	$358	5	$596
Direct Route 40 (Brawley-Calexico)	6	$715	6	$715
Saturday Total	**78**	**$9,301**	**85**	**$10,135**
Annual Total (52 Saturdays)	**4,056**	**$483,637**	**4,420**	**$527,041**

Estimated based on public timetables, assuming cost per hour of $119.24 (FY 2010-11 average) for all routes except the circulators, for which $86.25 (FY 2010-11 average) was used.

Addressing Capacity Issues on Calexico Routes

- Estimated Cost of Improvement (annual) $182,437 (minus the current cost of "shadow buses")
- Estimated Change in Ridership (annual) 24,317
- Estimated Change in Revenue Hours (annual) 1,530 (minus the current hours of "shadow buses")

Phase One includes the continued use of "shadow buses" on Intercity Route 1 and IVC Express Route 21. In Phase Two, it is recommended that these vehicles are incorporated into the route network on a daily basis, providing additional service on IVC Express Route 21 during the peak periods. Shadow buses should continue to be used on Intercity Route 1 as needed (these will be incorporated into a new route in Phase Three). In Phase Two, three additional round-trips should be provided per day on IVC Express Route 21. If possible, these trips should be interlined with IVC Express Route 22 (IVC-Niland), providing an additional express service option to passengers traveling between Calexico and points north of El Centro. Table 5-7 below outlines revenue hours and cost for the additional service on IVC Express Route 21.

Table 5-7: Revenue Hours and Cost for Additional Service on IVC Express Route 21

Route	Phase One Revenue Hours	Phase One Cost	Phase Two Revenue Hours	Phase Two Cost
IVC Express Route 21 (IVC-Calexico)	6	$715	12	$1,431
Annual Total (255 Weekdays)	**1,530**	**$182,437**	**3,060**	**$364,874**

Estimated based on public timetables, assuming cost per hour of $119.24 (FY 2010-11 average).

Consider "U-Pass" System

In addition to increased service on IVC Express Route 21 (IVC-Calexico), a study should be undertaken to examine the feasibility of a U-Pass system for students, faculty and staff at Imperial Valley College and San Diego State University's Calexico campus, as well as other institutions that may be interested in participating in such a program.

Calexico Intermodal Transfer Terminal

An Intermodal Transfer Terminal is currently being planned for Calexico, to be located on First Street at Mary Avenue. This terminal should be served by ICTC's routes in order to provide transfer opportunities between ICTC's routes (including Intercity Route 1, IVC Express Route 21, Direct Route 40 and the Orange Line), intra-city, for-profit operators, and long-distance intercity services such as those provided by Greyhound. In the long-term, coordination with services provided by Mexican carriers may also be desirable.

Bi-Directional Service on El Centro-Brawley Fast Route 52

- Estimated Cost of Improvement (annual) $15,203
- Estimated Change in Ridership (annual) 1,785
- Estimated Change in Revenue Hours (annual) 127

Currently, one limited-stop trip operates each morning from Brawley to El Centro with a stop in Imperial. It is recommended that a return trip be provided from El Centro to Brawley during the afternoon. Table 5-8 shows revenue hours and cost for this expanded service.

Table 5-8: Revenue Hours and Cost for Round-Trip Service on Fast Route 52

Route	Current Revenue Hours	Current Cost	Phase Two Revenue Hours	Phase Two Cost
Fast Route 52 (El Centro-Brawley)	0.5	$60	1	$119
Annual Total (255 Weekdays)	**128**	**$15,203**	**255**	**$30,406**

Estimated based on public timetables, assuming cost per hour of $119.24.

5.3.3 Phase Three (4 to 5 years)

Implementation of Calexico Circulator (Weekdays)

- Estimated Cost of Improvement (annual) $285,919
- Estimated Change in Ridership (annual) 15,218
- Estimated Change in Revenue Hours (annual) 3,315

In addition to the circulators proposed for Phase One, there is an additional circulator route proposed for Phase Three. In accordance with both the goals and objectives of the SRTP as well as with the views laid out in the *Imperial County Transit Vision*, the Orange Line circulator is proposed for Calexico, with connections available with Intercity Route 1, IVC Express Route 21, Direct Route 40 and Fast Route 51 (proposed for this phase as well and described subsequently) at the transfer point at 3rd Street and Paulin Avenue (or at the proposed Calexico Intermodal Transfer Terminal). The precise alignments of the circulator will be determined in a separate *Circulator Study* planned by ICTC. As with the Gold and Red Lines, this route should be designed to operate on a 60-minute headway in order to meet the proposed 60-minute pulse for the Intercity Routes.

Table 5-9 shows the revenue hours and cost for the Orange Line. This table shows the proposed hours and cost for weekday service—Saturday service on all circulators is also proposed for Phase Three, but this cost and hours are included separately as a part of the expansion of Saturday Service.

Table 5-9: Revenue Hours and Cost for the Orange Line Circulator

Route	Phase Three Revenue Hours	Phase Three Cost
Orange Line Circulator (Calexico)	13	$1,121
Annual Total (255 Weekdays)	**3,315**	**$285,919**

Estimated based on public timetables, assuming cost per hour $86.25 (FY 2010-11 average).

Implementation of Imperial-IVC-El Centro Connector (Weekdays)

- Estimated Cost of Improvement (annual) $285,919
- Estimated Change in Ridership (annual) 5,891
- Estimated Change in Revenue Hours (annual) 3,315

In addition to the circulators as proposed in the *Imperial County Transit Vision*, one additional route is proposed to enhance local circulation. The Purple Line Connector is proposed to connect downtown Imperial (at the proposed transfer terminal) with downtown El Centro (at the new transfer terminal) and IVC. This bus route would provide connections between the three

transfer locations and function to tie the Imperial and El Centro circulator systems together, as well as provide additional service between IVC, downtown El Centro, and the growing City of Imperial. The proposed Purple Line Connector is a new proposal and was not previously mentioned in the *Imperial County Transit Vision*. This route would also serve some of the bus stops removed from Route 3 during its alignment modification (described subsequently). The Purple Line Connector should be designed to operate on a 60-minute headway in order to meet the proposed 60-minute pulse for the Intercity Routes in El Centro.

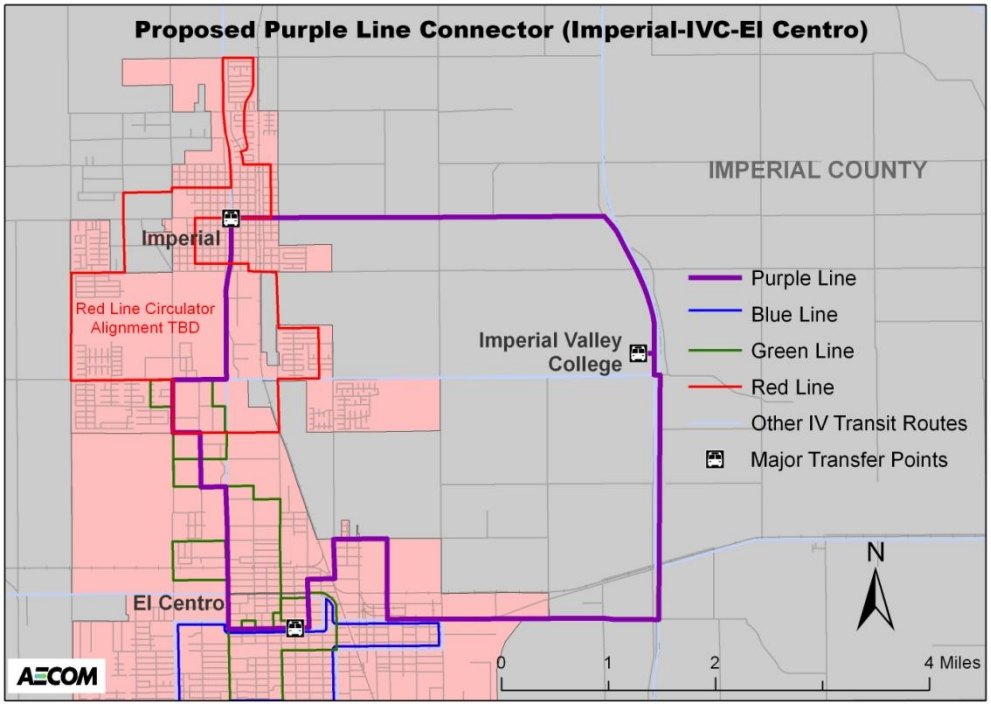
Table 5-10 shows the revenue hours and cost for the Purple Line on weekdays—Saturday hours and cost are included in the subsequent section, which discusses the expansion of circulator service to Saturdays. Figure 5-6 shows routing for the Purple Line connector (which would cover stops no longer served by Intercity Route 3 following the realignment proposed for it as part of this phase).

Table 5-10: Revenue Hours and Cost for the Purple Line Connector

Route	Phase Three Revenue Hours	Phase Three Cost
Purple Line Connector (Imperial-IVC-El Centro)	13	$1,121
Annual Total (255 Weekdays)	**3,315**	**$285,919**

Estimated based on public timetables, assuming cost per hour $86.25 (FY 2010-11 average).

Figure 5-6: Proposed Purple Line Connector



Implementation of Saturday Service on Circulators

- Estimated Cost of Improvement (annual) $215,280
- Estimated Change in Ridership (annual) 4,978
- Estimated Change in Revenue Hours (annual) 2,496

In Phases One and Two, Saturday service is proposed for expansion on Intercity Routes 1, 2, 3 and 4 and for introduction on Direct Route 40. In Phase Three, the circulators and the Purple Line Connector are also proposed for introduction on Saturdays, for the eight hour period from 10:00AM to 6:00PM to provide local circulation in Brawley, Calexico, El Centro and Imperial, as some local circulation provided by the current intercity routes would have been removed due to route realignment. Each Saturday, 48 additional hours of service would be operated. The increased cost of the service would be $4,140 per Saturday, or $215,280 annually. Table 5-11 shows the revenue hours and cost of the proposed increases to Saturday service.

Table 5-11: Proposed Saturday Service Increase – Hours and Cost Phase Three

Route	Phase Two Revenue Hours	Phase Two Cost	Phase Three Revenue Hours	Phase Three Cost
Intercity Route 1 (El Centro-Calexico)	26	$3,100	26	$3,100
Intercity Route 2 (El Centro-Niland)	38	$4,531	38	$4,531
Intercity Route 3 (El Centro-Holtville)	10	$1,192	10	$1,192
Intercity Route 4 (El Centro-Seeley)	5	$596	5	$596
Direct Route 40 (Brawley-Calexico)	6	$715	6	$715
Blue Line Circulator (El Centro)	0	$0	8	$690
Green Line Circulator (El Centro)	0	$0	8	$690
Gold Line Circulator (Brawley)	0	$0	8	$690
Red Line Circulator (Imperial)	0	$0	8	$690
Orange Line Circulator (Calexico)	0	$0	8	$690
Purple Line Connector (Imperial-IVC-El Centro)	0	$0	8	$690
Saturday Total	**85**	**$10,135**	**133**	**$14,275**
Annual Total (52 Saturdays)	**4,420**	**$527,041**	**6,916**	**$742,321**

Estimated based on public timetables, assuming cost per hour of $119.24 (FY 2010-11 average) for all routes except the circulators, for which $86.25 (FY 2010-11 average) was used.

Continue to Address Capacity Issues on Calexico Routes

- Estimated Cost of Improvement (annual) $243,250 (minus the current cost of "shadow buses")
- Estimated Change in Ridership (annual) 54,943
- Estimated Change in Revenue Hours (annual) 2,040 (minus the current hours of "shadow buses")

Phases One and Two continued the use of "shadow buses" on Intercity Route 1 and IVC Express Route 21. In Phase Two, these vehicles were incorporated into the expansion of IVC Express Route 21, and maintained as needed on Intercity Route 1. In this phase, it is recommended that these vehicles are no longer incorporated into Intercity Route 1, but rather become the new Fast Route 51. This route would provide a weekday-only, peak period limited-stop service between El Centro and Calexico. This service would operate via California Route 111, Interstate 8 and California Route 86, stopping at the Calexico Transfer Terminal, the proposed Manzanita Casino, the Imperial Valley Mall, and the El Centro Transfer Terminal. The additional stops at the casino and the mall would differentiate the service from private operator Numero Uno's express service, which operates nonstop between Calexico and El Centro.

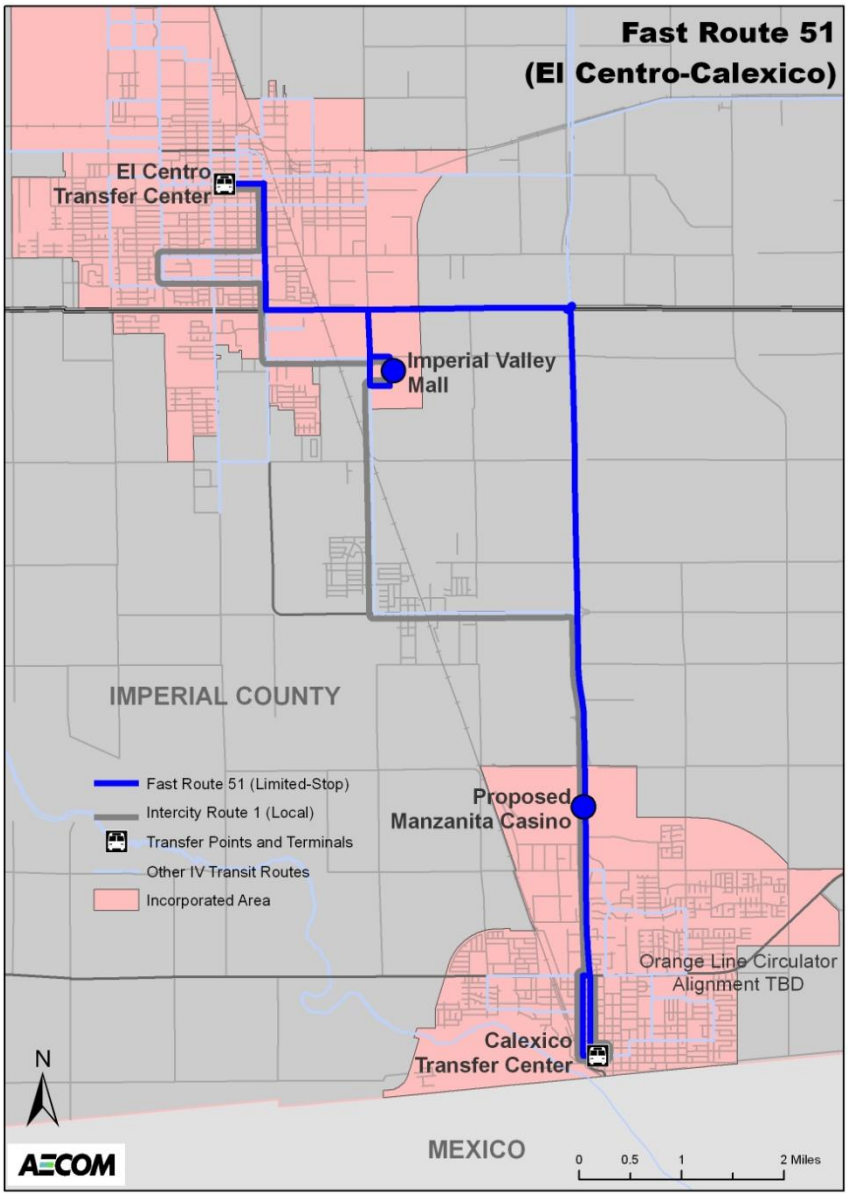
It is recommended to add two round-trips during the morning peak, and two during the evening peak—these trips would depart the Calexico and El Centro Transfer Terminals half-way between Route 1 departures (providing alternating local and limited-stop services between the two locations). The new service would provide 2,040 additional revenue hours of service per year and cost $243,250 annually, minus the existing cost of providing the "shadow buses". Table 5-12 below outlines revenue hours and cost for the additional service on the new service on Fast Route 51. Figure 5-7 following shows the proposed Fast Route 51.

Table 5-12: Revenue Hours and Cost for Fast Route 51

Route	Phase Three Revenue Hours	Phase Three Cost
Fast Route 51 (El Centro-Calexico)	8	$954
Annual Total (255 Weekdays)	**2,040**	**$243,250**

Estimated based on public timetables, assuming cost per hour of $119.24.

Figure 5-7: Proposed Fast Route 51



Realignment of Routes 1 and 3 to Improve Frequency and Reduce Circuitousness

- Estimated Cost of Improvement (annual) NO ADDITIONAL COST
- Estimated Change in Ridership (annual) NO ADDITIONAL RIDERSHIP
- Estimated Change in Revenue Hours (annual) NO ADDITIONAL HOURS

Currently, the most frequent services—Routes 1 and 2 and the Blue and Green Lines—operate on 70-minute headways. In order to encourage additional ridership, address some of the crowding issue on Route 1, and to simplify the timetable (i.e., easing use/understanding of the system by passengers and potential passengers) by providing clock-face headways, it is recommended that the headways on these routes (as well as on all circulators) be reduced to 60 minutes. To do so requires some modest route realignments on Routes 1, 2 and 3 (as well as adjustments to the Blue and Green Lines, which are addressed in a separate recommendation), which have the added benefit of reducing trip times for many passengers. Other circulators are proposed for their design to meet a 60-minute pulse.

Implementation of the route realignments is dependent upon implementation of the proposed circulators, which would serve most or all of the stops eliminated from the intercity routes. The realignments should allow reduction in headways to 60 minutes, speeding up travel times for passengers on the intercity routes as well as allowing for up to two additional trips throughout the day at no additional operating cost. It is intended that there would be a free transfer between intercity routes and circulators, as some current one-seat rides will now require transfers between the two route types.

Realignment of Route 2 is proposed for Phase One, concurrent with implementation of the Brawley Circulator. Proposed route realignments for Routes 1 and 3 to allow for 60-minute headways include the following:

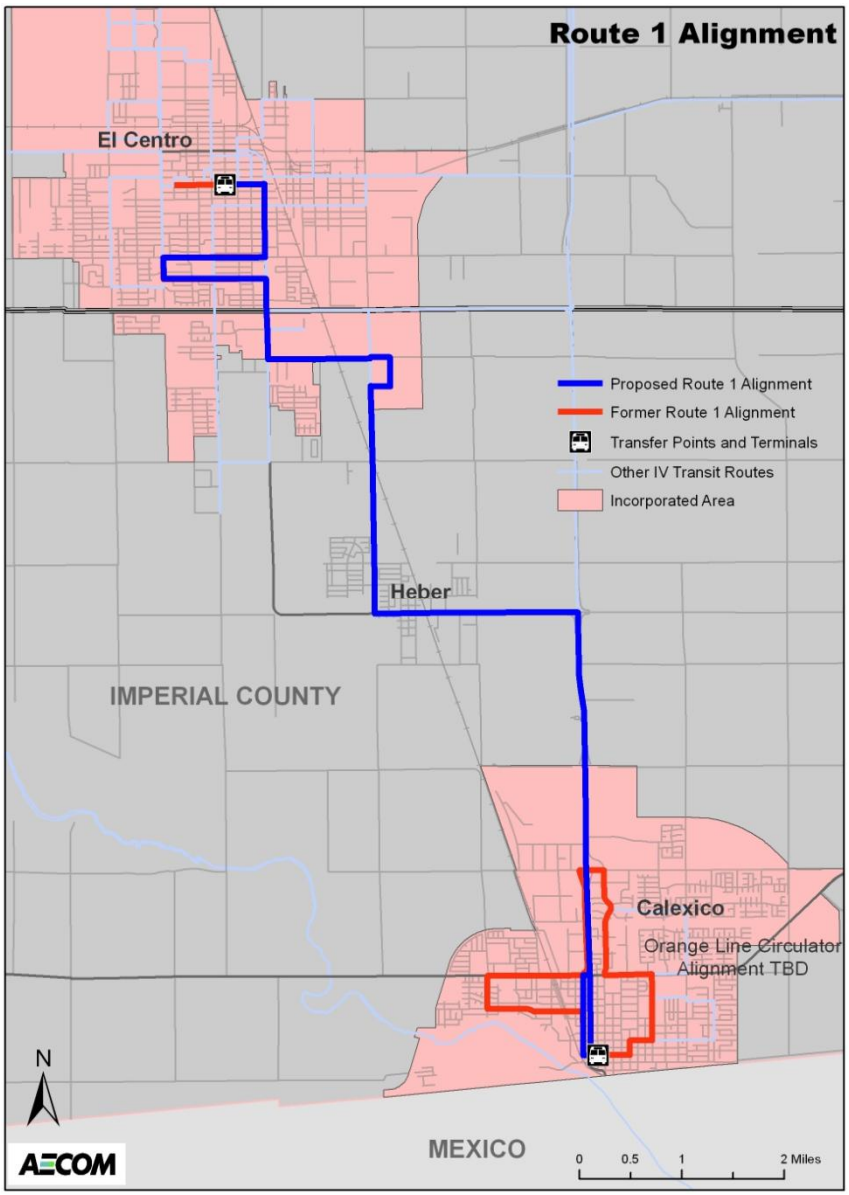
- **Route 1** – Remove the distribution loop within the City of Calexico, which will be covered by the Orange Line Circulator. Instead, Route 1 would operate closed-door, express service south of Cole Road, serving only the Calexico Transfer Terminal on Third Street at Paulin Avenue (or the Calexico Intermodal Transfer Terminal on First Street at Mary Avenue, when complete). This adjustment would cut 2.6 miles from the route (round-trip), saving approximately 13 minutes (assuming a 12 miles per hour average speed in the urban area) from the round-trip operating time (cycle time). Additional time may be saved due to closed-door service allowing for higher speeds.

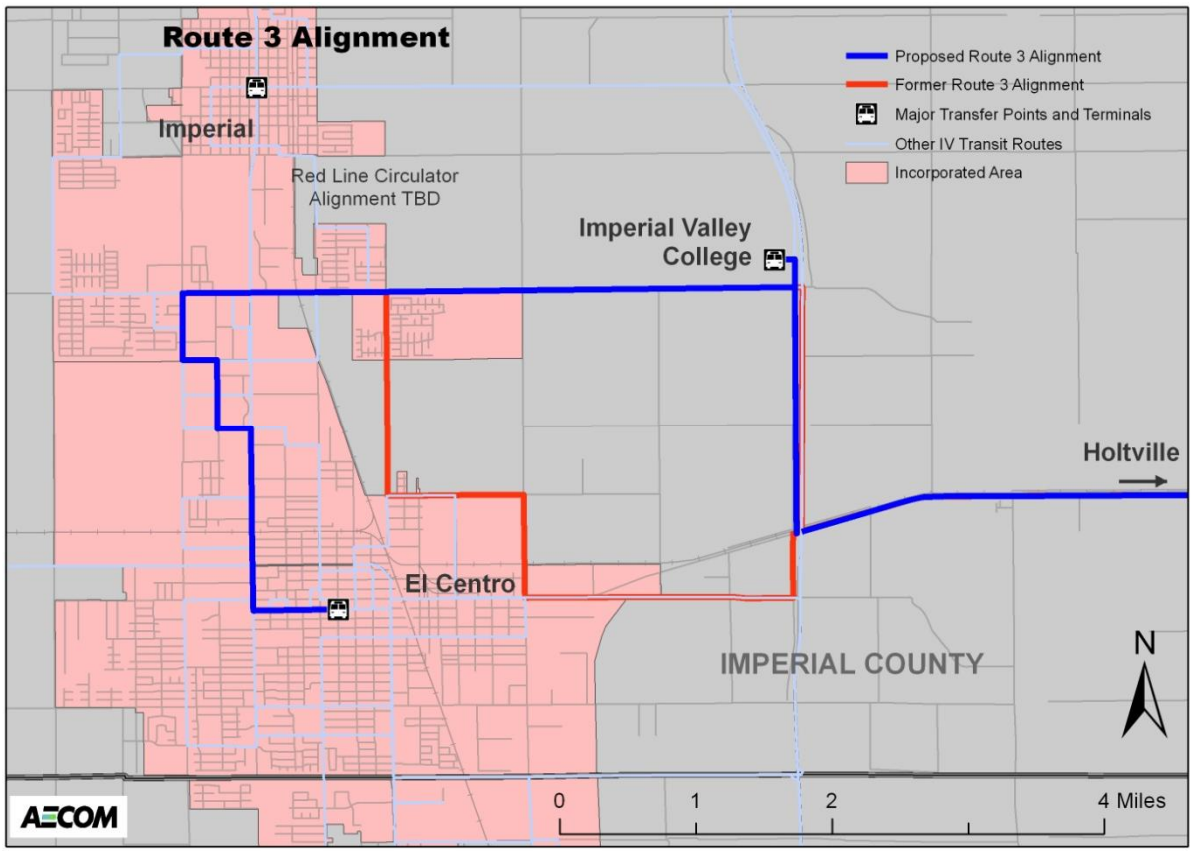
- **Route 3** – Re-route service between IVC and North Imperial Avenue via Aten Road—the areas formerly served along Gillett Street, Main Street, 3rd Street and Villa Avenue could be served by the proposed Purple Line Connector. The neighborhoods south of Cross Road/Aten Road could be served by the proposed Red Line Circulator, by stops along Aten Road on the realigned Route 3, and/or by potential route deviation (by request

only) on Route 3 diverting southbound on Cross Road, eastbound on Bernardi Street, northbound on Cedro Avenue, westbound on De Paoli Street, and northbound on Cross Road, returning to Aten Road. This realignment would save 4.6 miles in each direction, or approximately 11 minutes at an average speed of 22 miles per hour (the average speed of the existing route). Realignment of Route 3 would allow some additional time for the provision of deviated service along the route.

Figure 5-8 shows the proposed route realignments for Routes 1 and 3.

Figure 5-8: Proposed Route 1 and 3 Realignments





Adjust Blue/Green Lines to Meet 60-Minute Pulse and Serve Social Security Office

- Estimated Cost of Improvement (annual) NO ADDITIONAL COST
- Estimated Change in Ridership (annual) 510
- Estimated Change in Revenue Hours (annual) NO ADDITIONAL HOURS

In order to meet the proposed 60-minute (rather than the current 70-minute) "transfer pulse" in El Centro, the Blue and Green Lines will require adjusting. This should be incorporated into the ICTC's proposed *Circulator Study* and implemented concurrently with fixed-route realignments and implementation of the Orange and Purple Lines.

In addition, the Social Security Administration's El Centro office is scheduled to move during late 2012 or early 2013, at which time the Blue and Green Line circulators would require modest adjustments in order to continue to serve the agency. This may be the ideal time to reduce cycle times and headways to 60 minutes.

5.3.4 Future Phases/Feasibility Studies (5+ Years)

Expansion of Winterhaven Route

Winterhaven, home of the Quechan Tribe at the Fort Yuma Indian Reservation, is located approximately 60 miles east of El Centro, just north of Yuma, Arizona. Winterhaven is located across the Colorado River from Yuma, which had a population of 93,064 in the 2010 U.S. Census, and is more economically and culturally linked to Yuma, although it is associated with the county seat of Imperial County in El Centro. Currently, Winterhaven is served by once-weekly lifeline service between Winterhaven and El Centro, operated as an extension of the Route 3 service to Holtville.

In a recent study conducted by the Southern California Association of Governments in 2008 (*Winterhaven/Quechan Reservation Rural Connector* study), as well as a follow-up study that was conducted in 2011, additional service was proposed to connect Yuma and El Centro. In addition, the recently completed Short Range Transit Plan for Yuma included an extension of Yuma County Area Transit's Red Route 1 – Central Yuma Circulator across the state line to serve a stop at Winterhaven Drive and Railroad Avenue in Winterhaven. This service was extended on January 9, 2012 on a trial basis using federal funding. Timed transfers are available between this service and the El Centro-Winterhaven service.

In addition, the Quechan Tribe has received a federal grant to provide twice-weekly bus service between Winterhaven and El Centro—essentially doubling the frequency of the existing Winterhaven service. If this funding source is available, ICTC could operate this service as Route 33 El Centro-Winterhaven, via Interstate 8 (rather than via Holtville) in order to minimize travel time. For ICTC to operate the service would require a financial commitment from the affected communities, such as the Quechan Tribe.

Revision of Circulators to Improve Performance/Serve New Generators

It is recommended to continue to review the performance of all circulators, ensuring they remain up-to-date in serving the major generators of each urban area. In particular, the Blue and Green Lines, implemented prior to the introduction of any other circulators, may warrant some minor adjustments or revision in order to ensure they are performing at the highest level possible.

Pursue Cross-Border Coordination with Mexicali

Construction of the planned Calexico Intermodal Transfer Terminal would present the opportunity for coordination with transit services provided in Mexico (both intercity services and local Mexicali services). This facility should be integrated into ICTC's transit network in order to provide more seamless cross-border transportation options.

Use of intelligent transportation measures (i.e., Global Positioning Systems/Automatic Vehicle Locator systems)

In the long-term, ICTC may want to consider outfitting vehicles with automatic vehicle locator (AVL) systems in order to enhance its ability to collect ridership and running time data. Such systems would also allow for the implementation of real-time bus travel time information, which passengers could access via telephone, the Internet, or smart phone applications.

Pursue Vehicle and Facility Ownership by ICTC

In the long-term, it is recommended that ICTC pursue ownership of all vehicles and facilities utilized by ICTC-sponsored transit services. This would have numerous impacts:

- Vehicle and facility costs would be shifted to the capital budget, rather than being incorporated into the rate paid to the contractor for the operation of the service. This would reduce the hourly operating cost and allow for the use of additional funding streams for the capital program.

- Fleet and facility ownership by ICTC would likely increase competition between contractors bidding to operate ICTC services, as contractors would not be required to provide vehicles or a maintenance facility themselves. This increased competition would further reduce the hourly rate paid for contractors to operate service.

5.3.5 Long-Term Transit Vision Concepts

In November 2000, the Imperial Valley Association of Governments (since replaced by ICTC) completed the Imperial County Transit Vision, a long-range transit plan intended to guide future efforts at transit planning in the county over the following 20-year period. The following concepts are intended for consideration for inclusion in any future transit vision for the county.

California Route 111 Corridor Limited-Stop Service

Currently, several different services operate along California Route 111 between Calexico and Brawley, including IVC Express Routes 21 and 22 and Direct Route 40 as well as portions of several other routes. In the long-term, these services could be incorporated into one limited-stop service in the California Route 111 corridor (i.e., Fast Route 50), simplifying the service pattern and de-segmenting the markets for these routes (i.e., a passenger traveling between Calexico and Brawley would not be limited to Direct Route 40 trips, but would be able to utilize any trip traveling in the corridor). There could be several options for service: 1) some trips could be extended to Niland, providing more rapid service throughout the entire north-south spine, or 2) some trips (during the peak period) could continue to skip IVC, providing rapid service between Brawley and Calexico. Stops could include the Calexico Transfer Terminal, the proposed Manzanita Casino, IVC, and the Brawley Transfer Terminal. Timed transfers should be available with the circulators where possible – this feature would be most critical for the Purple Line at IVC, where passengers on Direct Route 40 could connect and reach downtown El Centro and Imperial.

Additional Review of Fare Structure and Pricing

As operating costs increase year-over-year, additional review of the fare structure and pricing may be desirable in order to maintain mandated farebox recovery ratios.

Review of Existing Border Crossings and Opportunities for Transit

Imperial County is bordered by Mexico to the south, with the City of Mexicali – and the nearly 1 million people in the city and its surrounding communities – located directly across the border from Calexico. Border crossings are available between downtown Calexico and Mexicali (via California Route 111), east of Calexico (via California Route 7), and near Winterhaven between Andrade and Los Algodones (via California Route 186). Currently, IV Transit serves the border crossing in downtown Calexico, which serves as a significant ridership generator. Future opportunities may exist not only to improve the connection between IV Transit and transit operators across the border, but to serve one or both of the other border crossings as well.

5.4 Demand Response Recommendations

This section summarizes recommendations for the demand-response services in Imperial County. These are broken down into similar time-frames as for the fixed route services, but with a slight variation: Phase One remains the same (1 to 2 years), but Phase Two (2 to 5 years) essentially combines Phases Two and Three as presented in the fixed route recommendations. Future phases/feasibility studies (5+ years) and ideas to be included as part of the county's long-term transit vision remain as they do in the fixed route recommendations. Demand response recommendations are summarized below and presented in further detail in the following section.

- Convene a Paratransit Technical Advisory Group to consider coordinated demand response service issues. These are suggested to include:

    - Interest in standardizing some or all performance indicators
    - Interest in standardizing selected rider policies, such as fares, trip reservation practices and waiting-time standards
    - Interest in standardized information tools and/or a common information portal

- Continue to pursue a more coordinated program for the provision of demand responsive service. Although the opportunities for the actual coordination or geographic consolidation of services may be somewhat limited, the pursuit of a more coordinated service delivery model may likely provide efficiencies in other aspects of the system (e.g., in functions such as procurement, maintenance, various administrative efforts, et cetera).

- Continuing attention to definition of terms on reporting demand response service operating statistics, specifically with regard to revenue service hours and miles versus deadhead service hours and miles.

- At the time of the next contracting cycle(s), review the agreements' performance language and develop appropriate clauses that promote contractor efforts to improve productivity and cost-efficiencies.

- Review service alternatives for the West Shores area, anticipating the retirement of the existing service. For example, consider exploring partnership opportunities for a small mileage-reimbursement program for residents living beyond the reach of IV Transit services.

- Review opportunities for Brawley operational changes to help reduce no-show and cancellation rates, including additional rider education about penalties of successive no-

shows, as well as fixed-route service expansion to help reduce demand for dial-a-ride services.

- Explore interest in a coordinated/consolidated dial-a-ride service for the cities of Imperial and El Centro.

- Examine the costs and benefits of consolidated trip dispatching and a common trip scheduling platform to determine whether there are realizable savings in the vehicle service hours and vehicle deployment schedules that could offset the costs of the installation and training.

- Monitor special grant and discretionary grant opportunities and consider developing a Mobility Management capability to address ADA demand management opportunities. As previously mentioned, this will help contain demand responsive costs as much as practically possible. Such strategies include functional certification (where the need for ADA eligibility is tested and verified by the paratransit operator, without sole reliance on the client's physician for the certification) or conditional eligibility (where clients may be eligible for demand response service only if certain conditions are met - for example, if the temperature exceeds a certain threshold).

5.4.1 Phase One (1 to 2 Years)

Expansion of IVT Access Weekend Service

The recommendations for the fixed route services called for additional service during the weekend. Specifically, in fixed route Phase 1, additional IVT Access hours on Saturdays would be needed to provide ADA complementary service (i.e., within ¾ mile) for the earlier start and the later finish on the north-south spine (i.e., only between Calexico and Niland).

On Sundays, new IVT Access hours in Phase 1 would be needed to provide ADA complementary service along the north-south spine, but on Sundays only between Calexico and Brawley.

Demand Response Performance Standards

The SRTP process has reported extensively on the performance standards in use by ICTC to assess and monitor its public transit providers. As noted previously, for the demand response programs ICTC directly administers, these standards and performance indicators are written into the contracts—specifically for IVT Access, MedExpress and the West Shores Dial-a-Ride.

For the municipal services, standards are more indirectly expressed in their contracts—in terms of number of trips per day or total costs. ICTC has developed various standards and monitors these in the context of the monthly and quarterly reporting received on behalf of the various services.

Table 5-13 presents a summary of the most recent year's actual performance, a three-year historical average and the assigned standard for four performance indicators. The columns in yellow represent the three-year averages for each of the four indicators. The FY 2009-10 actual performance and the three-year average provide a means of quickly seeing how well these programs are doing in relation to the existing standards.

Table 5-13: Demand Response Programs – Actual Performance vs. Existing Standards

Imperial County Demand Response Programs	Actual Performance, Three-Year History and Existing Standards by Operator											
	Productivity			*Cost Effectiveness*								
	Passengers/ Hour			Cost/ Passenger Trip			Cost/ Revenue Hour			Farebox Recovery Ratio		
	FY 09-10 Actual	Three-year Average	Existing Standard	FY 09-10 Actual	Three-year Average	Existing Standard	FY 09-10 Actual	Three-year Average	Existing Standard	FY 09-10 Actual	Three-year Average	Existing Standard
Regional ADA Complementary Paratransit Service												
AIM Transit	3.2	3.0	2.0	$22.67	$20.67	$22.75	$67.89	$62.13	$38.94	9.6%	10.2%	10.0%
Regional NEMT Service												
Med-Express	2.9	2.5	3.0	$31.77	$35.75	$32.18	$84.51	$87.09	$79.82	19.7%	19.9%	20.0%
Community-Based Dial-a-Ride Services												
Brawley Dial-a-Ride	5.5	5.2	8.1	$7.44	$7.07	$3.34	$39.01	$36.52	$27.18	12.1%	11.9%	10.0%
Calexico Dial-a-Ride	5.5	5.1	8.1	$7.83	$7.75	$4.89	$43.13	$39.09	$22.24	10.3%	10.9%	10.0%
El Centro Dial-a-Ride	6.5	5.8	5.1	$7.50	$7.54	$4.63	$46.40	$43.78	$23.62	16.5%	17.0%	20.0%
Imperial Dial-a-Ride	5.5	5.1	4.3	$7.83	$7.75	$5.70	$59.54	$52.36	$25.01	10.3%	10.9%	16.5%
West Shores Dial-a-Ride	3.0	2.7	5.0	$38.40	$32.30	$8.38	$110.83	$88.08	$38.50	5.2%	4.9%	10.0%

The existing process has individualized standards for each of the programs and, although these are typically reflective of actual experience, they are sometimes not. The potential revision of these standards could continue by considering each demand response service individually, with service indicators varying for each operator. There is, however, some value in moving towards a county-wide set of standards by type of program, facilitating a comparative sense of performance. Three program types are represented on Table 3-13: the regional ADA service, Med-Express (which is the regional non-emergency medical transportation – or NEMT – service) and and the five community-based dial-a-ride services. Common standards for the municipal services would not be unreasonable, while differing standards for the regional services may have merit.

Establishing performance measures by demand responsive program type can be done on a consensus basis, informed by historical experience and in light of current environmental conditions. Although certain guidelines might appear to be universally applicable, possible standardized performance indicators would need to be informed by – and tempered by – external conditions that each operator or operators collectively might face. (For example, the system-wide reduction in service hours of 7.2 percent, as a response to the decline in Local Transportation Fund monies, was likely expected to impact the volume of passenger trips provided, with implications for passenger-based performance indicators. However, in fact there were some desired increases in productivity and undesirable increases in cost-per-passenger for certain services, with ridership down overall by 4.9 percent in FY 2009-10.)

One potential approach to a unified performance standards program for the measures presented in Table 5-13 is shown below in Table 5-14. This approach would also function as a method to monitor performance as mandated by the Transportation Development Act (TDA). Notably, ICTC uses its performance standards as “guidelines”, without any type of penalty for performance below standard. To move this process forward, municipal representatives of the

various demand responsive services could be invited to discuss both the standards selected and the particular performance goals against which their programs might be assessed. Other measures that could be considered relevant to demand responsive services could include cost per revenue mile, percentage of "no-shows", percentage of cancellations and trip denials.

Table 5-14: Potential Imperial County Demand Responsive Standards – Performance Indicator Program

Indicators:	Regional Services: ADA	Regional Services: NEMT	Community-level services
Passengers per revenue hour	2.0	3.0	5.5
Cost per revenue hour	$62.00	$85.00	$45.00
Cost per passenger	$22.00	$32.00	$7.50
Farebox recovery ratio	10%	20%	10%

Notably, with regard to the farebox recovery ratio, the standard of 10 percent minimum fare to operating cost ratio is set by the California Transportation Development Act (TDA) as the standard for demand responsive programs. For the regional medical service, having a higher threshold is appropriate given the long distances of these trips and the necessary higher passenger fare to offset its higher operating costs.

Including Contract Clauses to Promote Productivity by Contractors

In the contracts for IVT Access and Med-Express, both passenger-per-hour and passenger-per-day standards are included, but there is no language in the contracts – nor in the city agreements – for contract incentives or penalties to encourage improved contractor performance. In the next cycle of service agreements, it would be valuable to review the performance expectations set forth within these documents and include industry best practice performance clauses.

Public Information and Standardizing Common Policies

Continued efforts to improve available public information are warranted, even with the increasing web presences of the county's transportation programs, including the dial-a-ride services. Key public information attributes and elements related to demand responsive services can include, but are not limited to:

- Information available in English and Spanish
- Basic rider eligibility information
- Service area maps for each dial-a-ride program
- Operating parameters of fares, days and hours of service
- Method and procedures around reserving a trip, including when to make a reservation and when to expect the vehicle to arrive (e.g., wait-time window)

- What to do when a trip must be cancelled
- What to expect when a rider consistently cancels or "no-shows" a trip

Related to providing information to the public, there is value in developing standardized service policies and procedures, such that members of the public might expect a common approach to trip scheduling and reservations processes. Where the ADA-certified riders may sometimes take community-level dial-a-ride services, or where any of these riders might take the regional NEMT service (i.e., Med-Express), there is some ease-of-use in standardized procedures for riders.

Discussion of standardizing policies could include discussion of fares, exploring where a common fare structure might be appropriate. The Med-Express fares will remain in their own category as regional inter-county trips: fares range from $15.00 to $30.00 round-trip, based upon the rider type. ADA fares are established in relation to the regulatory prescription of no more than twice the fixed-route base fare.

Standardized fare policy is most relevant to the community-based dial-a-ride programs. These fares currently vary from $0.50 in Imperial to $1.00 in Calexico and $1.50 in El Centro and Brawley ($1.75 for Imperial to El Centro trips). The West Shores higher fare of $2.00 per passenger trip relates to the high costs of this isolated area's service. The ADA fares, starting at $1.50 and $2.00 and going to $3.00 for longer trips, run parallel to several of the community dial-a-ride fares. There is value in greater differentiation, maintaining community-level demand response fares at rates higher than the fixed-routes but less than the regional ADA services, to encourage riders to use the least expensive, most cost-effective transportation possible.

In any case, it is advisable to represent clearly to the public—through easily accessible URL addresses—the policies and procedures of local demand responsive programs.

Demand Response Program Reporting

The triennial audit processes may return recommendations regarding the definitions of terms, such as how the individual operators are distinguishing between revenue service and deadhead services. Such language should be carried forward into future operating contracts in order to ensure clarity.

Other reporting elements that reflect upon operations include reporting no shows and trip cancellations, as well as trip denials. These are valuable to continue as each provides additional insight into the performance of these programs and can suggest areas to focus on improving performance.

Countywide Program for Demand Response Vehicle Procurement

Imperial County's demand response services are eligible to secure funds for vehicle replacement through the FTA Section 5310 program. Administered by Caltrans, this is a statewide competitive program to provide vehicles and vehicle-related equipment for services that predominately serve persons with disabilities and older persons. Within the County, operators have taken advantage of grant opportunities and purchased vehicles for use in Brawley, El Centro, Imperial and the West Shores Dial-a-Rides as well as Med-Express.

In Caltrans' most recent funding cycle, there was no match requirement for successful applicants. The usual match requirement was met by Toll Credits, at Caltrans' behest, and no cash match was required of the awardees. Under other circumstances, the standard match for the California 5310 program is 88.7 percent federal match and 11.3 percent local cash match. In either scenario, this is highly advantageous and clearly to the benefit of individual programs currently utilizing TDA or local Measure funds to purchase vehicles. An estimated 16 vehicles are used in peak service for demand responsive services (i.e., for all services combined). Routine replacement of these vehicles in a manner that maximizes Federal funding is highly desirable.

Retirement of West Shores Dial-a-Ride

The demonstrated poor productivity and high costs of service for West Shores Dial-a-Ride points to the need for alternatives. Demand for trips may have been higher previously, but the current West Shores residents' ability to utilize dial-a-ride services sufficiently to attain minimum fare-box and passengers-per-hour markers appears to be declining. It is recommended in the short-term that this service is suspended.

Addressing Higher No-Show and Cancellation Rates for Brawley Dial-a-Ride

As noted previously in the SRTP, the Brawley Dial-a-Ride program is operating at very cost-effective levels: low cost per trip, lower cost per revenue hour and reasonable levels of productivity. However, it also reports higher-than-desirable no-show and cancellation rates, totaling 12.7 percent combined for FY 2009-10, including a 5 percent cancellation rate and a 7.7 percent no-show rate. Particularly for the no-shows, this represents resources deployed but not utilized by passengers. Reducing no-show rates as well as late cancellations will improve system productivity. A starting goal of getting the combined rate under 10 percent is a place to begin, with even lower levels of no-show and cancellation desirable in the future.

Coordinating and/or Consolidating the El Centro and Imperial Dial-a-Ride Services

As was previously mentioned, although the opportunities for the actual coordination or consolidation of services may be somewhat limited (i.e., there is limited contiguous, overlapping or clearly duplicative service, with the exception of the Imperial and El Centro Dial-a-Rides), the pursuit of a more coordinated service delivery model may likely provide

efficiencies in other aspects of the system. For example, it is likely that the coordinated dispatching of trips amongst the various dial-a-rides would provide some efficiencies, as would the coordination of various "back office" functions such as procurement, maintenance, et cetera.

Although trip consolidation may not always be possible due to the geographical separation of some of the dial-a-ride programs, consolidation of these other demand response service functions may provide other opportunities for coordination and the realization of efficiencies that are beyond these geographic service area issues.

Nonetheless, there may be some value in formally joining the El Centro and Imperial Dial-a-Ride services, as their service areas overlap and presumably efficiencies in trip scheduling can be achieved with a combined fleet. Functionally, this may already be happening to a certain extent given that both cities' programs are operated by the same contractor. There is probably the greatest benefit to residents of Imperial, given that the cross-jurisdictional trips are most likely to be persons living in Imperial wanting to travel to and from El Centro, and possibly increasing with the almost doubling of the town's population in the 2010 census. There is likely less demand for dial-a-ride trips in the reverse (i.e., El Centro residents wishing to travel to and from Imperial). Nonetheless, it is conceivable there could be some administrative cost-savings in operating a single program for these two communities, with proportionate shares paid by each city.

In terms of revenue hours, El Centro is operating just over twice as many hours annually (4,189 versus 1,950 for FY 2009-10) and achieving a 17 percent farebox recovery ratio. Imperial is attaining lower, but respectable, 14 percent farebox recovery ratio. Of the 34,000 one-way trips carried in FY 2009-10, almost 75 percent were made in El Centro and 25 percent originated and/or ended in the City of Imperial. Performance standards for a combined service would have to be considered, in light of historical operating experience.

5.4.2 Phase Two (2 to 5 years)

Promoting IVT Access Demand Management Strategies

The ADA paratransit program is historically the most expensive of the county's demand response services and will be higher in the years ahead, with its new operating contract and ever increasing expectations about the delivery of Americans with Disabilities Act (ADA) complementary paratransit service. In many areas of the country, transit operators are instituting various strategies to ensure that riders use the least expensive transit service that will meet their needs. Such strategies are many; a few can include:

- Encouraging fixed-route use with free fares for ADA certified riders
- Providing travel training of various types (group, individual and passive, trip planner tools) to promote use of fixed-routes
- Promoting universal access by ensuring clear path-of-access and installing curb cuts, bus benches and other stop shelters at destinations highly used by ADA services

ICTC could encourage these and other strategies, possibly funded through New Freedom grant funding, to provide a focal point for activities geared to expanding riders' understanding of their mobility choices and thereby off-setting increasing ADA paratransit budget requirements.

5.4.3 Future Phases/Feasibility Studies (5+ Years)

West Shores Dial-a-Ride Service Alternatives

In response to the current poor productivity and high costs of the West Shores Dial-a-Ride service, it is recommended in the short-term to terminate the service in its entirety. However, in the longer-term it may be feasible to develop a replacement for the service in the form of a mileage reimbursement program, if a local administrator can be found.

A mileage-reimbursement volunteer-driver program alternative envisions something similar to Riverside County's **TRIP** – *Transportation Reimbursement and Information Program*[8] and San Bernardino County's **TREP** – *Transportation Reimbursement Escort Program.* In both counties, the programs operate with a mix of local and federal funding sources (local sales tax and LTF funds; New Freedom and Older American Act funds). The programs provide for the mileage reimbursement that is paid, in arrears, to accepted program participants. Largely for older persons and persons with disabilities, these individuals are responsible for locating their own drivers and are provided with modest funds to reimburse volunteer drivers that each participant locates for themselves. Monthly reimbursements to an individual are typically capped at $150.00 to $250.00, depending upon individual travel requirements. The mileage reimbursement rate is well below the IRS rate, between $0.25 and $0.40 cents per mile.

In San Bernardino County, the program is administered by the County's Department of Aging and Adult Services. In Riverside County, the program is administered by a non-profit organization affiliated with and housed at the County Office on Aging. These are lifeline services with modest per-trip costs. Riverside's TRIP program averages a little more than $5.00 per one-way passenger trip. ICTC would need to locate a partner with whom (or through whom) to operate such a program in Imperial County. These programs have been most effective when tightly connected to human service delivery systems.

In addition to the West Shores service, this concept may possibly also be pursued in the long-term future as an alternative to ICTC's other lifeline services (Bombay Beach, Ocotillo and/or Winterhaven).

[8] Riverside County's TRIP Program: www.livingpartnership.org/Transportation.htm

5.4.4 Long-Term Transit Vision Concepts

As with long-term transit vision concepts included for the fixed routes, the following concept is intended for consideration for inclusion in a future transit vision for the county.

Examine Cost-Benefit of Consolidated Trip Scheduling Function for Demand Response Programs

Because these services are small, the consolidation of the five city and two regional services into a single dispatch center might reduce dispatcher personnel expenses. To the extent that local supervisors are still needed, there might not be savings to be realized in reducing the administrative and dispatch personnel by a centralized capability. However, it is possible that some modest savings in revenue vehicle hours could be realized through a common dispatch function. For example, where the IVT Access service could carry some non-ADA trips on a space-available basis this could both improve productivity for that program and possibly relieve capacity issues on the local dial-a-rides. Whether that also translated into decreasing vehicle revenue hours is a separate question.

To assess this further, some analysis of origin and destination addresses by time-of-day and day-of-week could inform an understanding of current trip-making and suggest the potential for cost-savings through consolidated dispatch. There are at least three software providers currently providing smaller-scale dispatch products: Trapeze, StratGen, and RouteMatch. To the extent that an appropriately-scaled system could reduce trip length by working all the dial-a-ride vehicles as one fleet, this could translate to reduced vehicle service hours and cost-savings. However, the small number of vehicles located within each community may limit the opportunities for efficiencies. Additionally, there are mixed system results reported when co-mingling ADA riders and non-ADA riders, with national research reporting that one effect is to bring all riders up to the standards of ADA services, thereby increasing system costs (i.e., as reported in *TCRP Report 143 - Resource Guide for Commingling ADA and Non-ADA Paratransit Riders*).

5.5 Capital Plan

The following is the five-year plan for ICTC's additional capital needs given the implementation of the SRTP. This plan is broken down into fixed route and demand response capital plans; due to the nature of the recommendations, the fixed routes are divided into Phases (i.e., One, Two and Three, in line with the recommended implementation plan) and the demand response service capital needs are broken out for each year (five years).

5.5.1 Fixed Routes

The fixed route capital plan includes the procurement schedule for any additional vehicles over the five-year life of the SRTP (i.e., meaning buses that would be required over-and-above the current fleet replacement plans, which are presently not administered by ICTC), as well as additional capital expenditures proscribed by the SRTP that are beyond those already in earmarked or in progress. Expenditures are included for Phase One (1 to 2 years), Phase Two (2 to 3 years) and Phase Three (4 to 5 years). Once again, it should be noted that the vehicles included are for expansion of the service—the capital plan does not specify whether these will be purchased by ICTC or the contractor responsible for the operation of bus service. The fixed route capital plan is shown in Table 5-15 below.

Table 5-15: Estimated SRTP Fixed Route Capital Plan

Capital Expense Item	Unit Cost	Phase One		Phase Two		Phase Three		TOTAL
		Units	Cost	Units	Cost	Units	Cost	
40-foot Vehicles	$475,000	-	$0	1	$475,000	1	$475,000	$950,000
Small Transit Vehicles	$60,000	2	$120,000	-	$0	2	$120,000	$240,000
Information Cases	$207	117	$24,219	-	$0	-	$0	$24,219
Schedules	$3.25	117	$380	117	$380	117	$380	$1,141
System Maps for Shelters	$22	41	$902	41	$902	41	$902	$2,706
Marketing Campaign and Materials (new map, schedules, etc.)	$10,000	-	$0	-	$0	-	$0	$10,000
Total			**$145,501**		**$476,282**		**$596,282**	**$1,228,066**

It should be noted that fleet ownership would have a large impact on the capital plan in the long-term. If the contractor continues to own the fleet, operating costs will continue to increase from current levels. However, if ICTC owns the fleet (and leases it to the contractor), operating costs will likely decrease while capital costs will increase. However, it should be kept in mind that different funding sources are available for operating versus capital costs.

5.5.2 Demand Response Services

As was previously mentioned, the recommendation is offered that ICTC work closely with its city partners to develop combined 5310 vehicle grant applications. The annual cycle has generally been announced in December or January for a spring application deadline, with grant development workshops held in January and February to assist prospective applicants. A combined application would save the considerable effort of preparing multiple grant applications and would likely represent a stronger, more coordinated and therefore more competitive proposal. Match requirements would have to be determined based upon Caltrans match policies for the next 5310 cycle.

Following, in Table 5-16, is the proposed capital program for the Imperial County demand response services for the next five years. The Capital Plan has been prepared to provide for adequate replacement of demand response vehicles and procurement of dispatching software and vehicle locators. Vehicle replacement pricing was based on current rates for vehicles comparable in size to those in active service. This plan replaces 21 total vehicles over the next five years, and includes a cost scenario that utilizes FTA §5310 for Elderly Persons and Persons with Disabilities transportation funding to significantly reduce capital expenditures. Dispatching software and Intelligent Transportation Systems are eligible capital expenses under FTA §5310 as stated in the Federal Register {*FTA C 9070.1F Page III-5-48*} and should be pursued for procurements in this plan, where appropriate within the funding limits of the grant. It should be noted that the way in which the various future scenarios described in this SRTP (e.g., additional consolidation and coordination with a private operator, more uniform reporting standards, etc.) play out, as well as any possible future changes in funding programs (e.g., the proposed federal "Senior Transportation and Mobility Improvement Act") may alter some of these projections.

Table 5-16: Estimated SRTP Demand Response Capital Plan

Capital Plan	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	Totals
Software and Equipment						
Trapeze/ Strategem/ Routematch	$75,000					**$75,000**
Vehicle Locators	$25,000		$30,000	$30,000	$20,000	**$105,000**
Vehicle Replacements						
IVT Access			$210,000	$210,000	$140,000	**$560,000**
Med-Express			$90,000		$90,000	**$180,000**
Brawley DAR		$70,000		$140,000		**$210,000**
Calexico DAR	$270,000			$90,000		**$360,000**
El Centro DAR	$90,000		$90,000		$90,000	**$270,000**
Imperial DAR	$90,000		$90,000			**$180,000**
Total Capital Cost	**$550,000**	**$70,000**	**$510,000**	**$470,000**	**$340,000**	**$1,940,000**
Possible FTA 5310 Contribution (88.53%)	**$420,518**	**$61,971**	**$451,503**	**$416,091**	**$301,002**	**$1,717,482**
Capital Cost after FTA 5310 Contribution	**$129,483**	**$8,029**	**$58,497**	**$53,909**	**$38,998**	**$288,916**

5.6 Financial Plan

This section includes the estimated fixed route and demand response financial operating plans, which include operating expenses reflecting the previously described service plans. The financial plan also incorporates changes in farebox revenues due to fare increases and impacts of service changes on ridership.

5.6.1 Fixed Routes

The financial plan for the fixed routes uses the operating costs included in the recommendations section of this report, which are based on FY 2010-11 hourly rates of $119.24 for regular routes and $86.25 for circulators, the most detailed figures available for this metric. Fare revenues were determined utilizing the average fare and based on ridership projections, which in turn were developed utilizing order-of-magnitude elasticity changes in route productivity based on service changes and fare increases. In addition, the average fare was increased in year one by 29.15 percent to reflect the proposed fare increase.

All projections build upon baseline costs from FY 2011-12. In contrast to the other sections of the SRTP – where costs are presented in constant current-year dollars – the costs in this fixed route financial plan are assumed to increase at a rate of approximately 1.5 percent annually.

Table 5-17 summarizes the estimated fixed route financial plan for the five years of the SRTP.

Table 5-17: Estimated Fixed Route Financial Plan

	Current (FY 2011-12)	Year One (FY 2012-13)	Year Two (FY 2013-14)	Year Three (FY 2014-15)	Year Four (FY 2015-16)	Year Five (FY 2016-17)
Operating Costs	$4,046,312*	$5,304,184	$5,383,746	$5,716,393	$6,894,328	$6,997,743
Fare Revenues	$567,103	$633,046	$633,046	$682,826	$851,229	$851,229
Subsidy Required	$3,479,210	$4,671,138	$4,750,700	$5,033,567	$6,043,099	$6,146,514
FTA Section 5311	$362,869	$375,000	$375,000	$375,000	$375,000	$375,000
FTA Section 5307	$1,135,000	$1,186,800	$1,186,800	$1,232,800	$1,232,800	$1,280,800
LTF SB 325	$1,482,843	$1,505,086	$1,527,662	$1,550,577	$1,573,836	$1,597,443
Total Federal, State and Local Funding	**$2,980,712**	**$3,066,886**	**$3,089,462**	**$3,158,377**	**$3,181,636**	**$3,253,243**
Additional Annual Funding Required	***$498,498****	***$1,604,252***	***$1,661,239***	***$1,875,190***	***$2,861,464***	***$2,893,271***

***"Current" year operating costs based on hourly rates FY 2010-11 Transit Finance Plan; operating costs may be overstated.*

5.6.2 Demand Response Services

Two service plans are presented for the operation of the *existing* demand-responsive programs, as currently configured. (The additional demand response costs required as a concurrent part of the anticipated weekend service expansion of the IV Transit system are presented in the subsequent section in Tables 5-23 and 5-24.)

Scenario One, presented in Table 5-18, is derived from the projected expenditures and revenues from the 2011-12 ICTC Overall Work Plan and Budget, published in July 2011. This table assumes a 1.5 percent annual increase for program cost and all revenue streams as well as retirement of the West Shores Dial-a-Ride service at the end of this fiscal year.

Scenario Two, presented in Table 5-19, is also derived from the projected expenditures and revenues from the 2011-12 ICTC Overall Work Plan and Budget, published in July 2011. This table also assumes a 1.5 percent increase in program costs and a 1.5 percent increase in FTA 5307 funding for IVT Access, and fare revenue for all systems. However, with this scenario, STA and LTA funding contributions are held steady over the course of the operating plan. Also with Scenario Two, the LTF funding assumes an increase of 1.5 percent in addition to what is needed to replace the loss of funding from holding the STA funding steady for IVT Access, and LTA funding steady for the municipal dial-a-rides. Similar to Scenario One, this scenario also assumes that the West Shores program is retired at the end of this fiscal year.

Table 5-18: Estimated Demand Response Financial Plan – Scenario One

Scenario 1 EXPENSE	*FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17
Program Costs						
IVT Access	$1,175,994	$1,358,142	$1,378,514	$1,399,192	$1,420,180	$1,441,483
Med Express	$230,736	$234,197	$237,710	$241,276	$244,895	$248,568
Brawley DAR	$265,700	$269,686	$273,731	$277,837	$282,004	$286,234
Calexico DAR	$351,007	$356,272	$361,616	$367,040	$372,546	$378,134
El Centro DAR	$281,562	$285,785	$290,072	$294,423	$298,840	$303,322
Imperial DAR	$176,632	$179,281	$181,971	$184,700	$187,471	$190,283
West Shores DAR	$94,474					
Demand Response Total Expense	**$2,576,105**	**$2,683,364**	**$2,723,614**	**$2,764,469**	**$2,805,936**	**$2,848,025**
REVENUE	***FY 2011-12**	**FY 2012-13**	**FY 2013-14**	**FY 2014-15**	**FY 2015-16**	**FY 2016-17**
FTA 5307						
IVT Access	$305,680	$310,265	$314,919	$319,643	$324,438	$329,304
FTA 5307 Total	**$305,680**	**$310,265**	**$314,919**	**$319,643**	**$324,438**	**$329,304**
STA						
IVT Access	$702,000	$712,530	$723,218	$734,066	$745,077	$756,253
STA Total	**$702,000**	**$712,530**	**$723,218**	**$734,066**	**$745,077**	**$756,253**
LTF (SB325)						
IVT Access	$91,103	$92,470	$93,857	$95,264	$96,693	$98,144
Med Express	$184,589	$187,358	$190,168	$193,021	$195,916	$198,855
Brawley DAR	$209,130	$212,267	$215,451	$218,683	$221,963	$225,292
Calexico DAR	$285,906	$290,195	$294,548	$298,966	$303,450	$308,002
El Centro DAR	$223,406	$226,757	$230,158	$233,611	$237,115	$240,672
Imperial DAR	$128,969	$130,904	$132,867	$134,860	$136,883	$138,936
West Shores DAR	$55,027					
LTF Total	**$1,178,130**	**$1,139,950**	**$1,157,049**	**$1,174,405**	**$1,192,021**	**$1,209,901**
LTA Transit						
Brawley DAR	$30,000	$30,450	$30,907	$31,370	$31,841	$32,319
Calexico DAR	$30,000	$30,450	$30,907	$31,370	$31,841	$32,319
El Centro DAR	$30,000	$30,450	$30,907	$31,370	$31,841	$32,319
Imperial DAR	$30,000	$30,450	$30,907	$31,370	$31,841	$32,319
West Shores DAR	$30,000					
LTA Total	**$150,000**	**$121,800**	**$123,627**	**$125,481**	**$127,364**	**$129,274**
Fares						
IVT Access	$77,211	$78,369	$79,545	$80,738	$81,949	$83,178
Med Express	$46,147	$46,839	$47,542	$48,255	$48,979	$49,713
Brawley DAR	$26,570	$26,969	$27,373	$27,784	$28,200	$28,623
Calexico DAR	$35,101	$35,628	$36,162	$36,704	$37,255	$37,814
El Centro DAR	$28,156	$28,578	$29,007	$29,442	$29,884	$30,332
Imperial DAR	$17,663	$17,928	$18,197	$18,470	$18,747	$19,028
West Shores DAR	$9,447					
Fares Total	**$240,295**	**$234,311**	**$237,825**	**$241,393**	**$245,014**	**$248,689**
Demand Response Total Revenues	**$2,576,105**	**$2,518,855**	**$2,556,638**	**$2,594,988**	**$2,633,913**	**$2,673,421**

Cost and revenue data for all services are derived from Table 5 of the ICTC 2011-12 Overall Work Plan and Budget.

Table 5-19: Estimated Demand Response Financial Plan – Scenario Two

Scenario 2						
EXPENSE	***FY 2011-12**	**FY 2012-13**	**FY 2013-14**	**FY 2014-15**	**FY 2015-16**	**FY 2016-17**
Program Costs						
IVT Access	$1,175,994	$1,358,142	$1,378,514	$1,399,192	$1,420,180	$1,441,483
Med Express	$230,736	$234,197	$237,710	$241,276	$244,895	$248,568
Brawley DAR	$265,700	$269,686	$273,731	$277,837	$282,004	$286,234
Calexico DAR	$351,007	$356,272	$361,616	$367,040	$372,546	$378,134
El Centro DAR	$281,562	$285,785	$290,072	$294,423	$298,840	$303,322
Imperial DAR	$176,632	$179,281	$181,971	$184,700	$187,471	$190,283
West Shores DAR	$94,474					
Demand Response Total Expense	**$2,576,105**	**$2,683,364**	**$2,723,614**	**$2,764,469**	**$2,805,936**	**$2,848,025**
REVENUE	***FY 2011-12**	**FY 2012-13**	**FY 2013-14**	**FY 2014-15**	**FY 2015-16**	**FY 2016-17**
FTA 5307						
IVT Access	$305,680	$310,265	$314,919	$319,643	$324,438	$329,304
FTA 5307 Total	**$305,680**	**$310,265**	**$314,919**	**$319,643**	**$324,438**	**$329,304**
STA						
IVT Access	$702,000	$702,000	$702,000	$702,000	$702,000	$702,000
STA Total	**$702,000**	**$702,000**	**$702,000**	**$702,000**	**$702,000**	**$702,000**
LTF (SB325)						
IVT Access	$91,103	$103,000	$115,075	$127,331	$139,771	$152,397
Med Express	$184,589	$187,358	$190,168	$193,021	$195,916	$198,855
Brawley DAR	$209,130	$212,717	$216,358	$220,053	$223,804	$227,611
Calexico DAR	$285,906	$290,645	$295,454	$300,336	$305,291	$310,320
El Centro DAR	$223,406	$227,207	$231,065	$234,981	$238,956	$242,990
Imperial DAR	$128,969	$131,354	$133,774	$136,230	$138,724	$141,255
West Shores DAR	$55,027					
LTF Total	**$1,178,130**	**$1,152,280**	**$1,181,894**	**$1,211,952**	**$1,242,461**	**$1,273,428**
LTA Transit 2%						
Brawley DAR	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000
Calexico DAR	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000
El Centro DAR	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000
Imperial DAR	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000
West Shores DAR	$30,000					
LTA Total	**$150,000**	**$120,000**	**$120,000**	**$120,000**	**$120,000**	**$120,000**
Fares						
IVT Access	$77,211	$78,369	$79,545	$80,738	$81,949	$83,178
Med Express	$46,147	$46,839	$47,542	$48,255	$48,979	$49,713
Brawley DAR	$26,570	$26,969	$27,373	$27,784	$28,200	$28,623
Calexico DAR	$35,101	$35,628	$36,162	$36,704	$37,255	$37,814
El Centro DAR	$28,156	$28,578	$29,007	$29,442	$29,884	$30,332
Imperial DAR	$17,663	$17,928	$18,197	$18,470	$18,747	$19,028
West Shores DAR	$9,447					
Fares Total	**$240,295**	**$234,311**	**$237,825**	**$241,393**	**$245,014**	**$248,689**
Demand Response Total Revenues	**$2,576,105**	**$2,518,855**	**$2,556,638**	**$2,594,988**	**$2,633,913**	**$2,673,421**

Cost and revenue data for all services are derived from Table 5 of the ICTC 2011-12 Overall Work Plan and Budget.

5.7 Implementation Schedule and Impacts

This section provides a summary of the operating changes proposed in the SRTP for each phase of the five-year period as outlined in the plan, including Phases One, Two and Three for the fixed routes and Phases One and Two for the demand response services.

5.7.1 Fixed Routes

Tables 5-20 through 5-22 outline the proposals and cost impacts associated with each for Phases One, Two and Three of the fixed route plan implementation. Costs are based on FY 2010-11 operating costs and **are in constant current dollars** (i.e., they do not reflect cost increases due to inflation, changing fuel costs or increases in contract rates), and therefore do not exactly match the dollar values presented in Table 5-17.

Table 5-20: Estimated Fixed Route Implementation Impacts – Phase One

Route	Current Annual Operating Cost	Phase One Change(s)	Phase One Annual Cost Change	Phase One Annual Operating Cost
Route 1	$871,167	Expansion of Saturday service; Implementation of Sunday service	$241,819	$1,112,986
Route 2	$1,291,846	Expansion of Saturday service; Implementation of Sunday service; Realignment	$328,625	$1,620,472
Route 3	$335,064	Implement route deviation	$0	$335,064
Route 4	$170,632	Publicize route deviation	$0	$170,632
Route 21	$182,437	None	$0	$182,437
Route 22	$152,031	None	$0	$152,031
Route 32	$91,219	None	$0	$91,219
Route 33	$121,625	None	$0	$121,625
Route 34	$60,812	None	$0	$60,812
Route 40	$182,437	Introduction of Saturday service	$37,203	$219,640
Route 51	$0	None	$0	$0
Route 52	$15,203	None	$0	$15,203
Blue Line	$285,919	None	$0	$285,919
Green Line	$285,919	None	$0	$285,919
Gold Line	$0	Implement weekday service	$285,919	$285,919
Red Line	$0	Implement weekday service	$285,919	$285,919
Orange Line	$0	None	$0	$0
Purple Line	$0	None	$0	$0
TOTAL	**$4,046,312**		**$1,179,485**	**$5,225,797**

Table 5-21: Estimated Fixed Route Implementation Impacts – Phase Two

Route	Phase One Annual Operating Cost	Phase Two Change(s)	Phase Two Annual Cost Change	Phase Two Annual Operating Cost
Route 1	$1,112,986	None	$0	$1,112,986
Route 2	$1,620,472	None	$0	$1,620,472
Route 3	$335,064	Expansion of Saturday service	$31,002	$366,067
Route 4	$170,632	Expansion of Saturday service	$12,401	$183,033
Route 21	$182,437	Additional weekday service	$182,437	$364,874
Route 22	$152,031	None	$0	$152,031
Route 32	$91,219	None	$0	$91,219
Route 33	$121,625	None	$0	$121,625
Route 34	$60,812	None	$0	$60,812
Route 40	$219,640	None	$0	$219,640
Route 51	$0	None	$0	$0
Route 52	$15,203	Bi-directional weekday service	$15,203	$30,406
Blue Line	$285,919	None	$0	$285,919
Green Line	$285,919	None	$0	$285,919
Gold Line	$285,919	None	$0	$285,919
Red Line	$285,919	None	$0	$285,919
Orange Line	$0	None	$0	$0
Purple Line	$0	None	$0	$0
TOTAL	**$5,225,797**		**$241,044**	**$5,466,840**

Table 5-22: Estimated Fixed Route Implementation Impacts – Phase Three

Route	Phase Two Annual Operating Cost	Phase Three Change(s)	Phase Three Annual Cost Change	Phase Three Annual Operating Cost
Route 1	$1,112,986	Realignment	$0	$1,112,986
Route 2	$1,620,472	None	$0	$1,620,472
Route 3	$366,067	Realignment	$0	$366,067
Route 4	$183,033	None	$0	$183,033
Route 21	$364,874	None	$0	$364,874
Route 22	$152,031	None	$0	$152,031
Route 32	$91,219	None	$0	$91,219
Route 33	$121,625	None	$0	$121,625
Route 34	$60,812	None	$0	$60,812
Route 40	$219,640	None	$0	$219,640
Route 51	$0	Introduction	$243,250	$243,250
Route 52	$30,406	None	$0	$30,406
Blue Line	$285,919	60 minute headways; Introduction of Saturday service	$35,880	$321,799
Green Line	$285,919	60 minute headways; Introduction of Saturday service	$35,880	$321,799
Gold Line	$285,919	Introduction of Saturday service	$35,880	$321,799
Red Line	$285,919	Introduction of Saturday service	$35,880	$321,799
Orange Line	$0	Introduction of weekday and Saturday service	$321,799	$321,799
Purple Line	$0	Introduction of weekday and Saturday service	$321,799	$321,799
TOTAL	**$5,466,840**		**$1,030,367**	**$6,497,208**

5.7.2 Demand Response Services

The following activities are recommended for each phase in terms of the demand response services:

Phase One (1 to 2 years)

- Expansion of IVT Access weekend service
- Retire West Shores Dial-a-Ride
- Convene city working group to discuss common performance standards
- Implement revised performance standards for demand response services in concert with next contract cycles
- Add penalty and incentive clauses to demand response contracts in next contract cycles
- Provide improved public information and communication of common service policies
- Implement countywide program for demand response vehicle procurement
- Address high no-show and cancellation rates for Brawley Dial-a-Ride in conjunction with implementation of Gold Line circulator service in Brawley
- Monitor New Freedom grant opportunities to initiate IVT Access demand management strategies
- Complete further analysis of trip-making activity to determine cost-benefit of consolidated dispatch function
- Coordinate and/or consolidate El Centro and Imperial Dial-a-Rides in conjunction with implementation of Red Line Circulator and Purple Line Connector

Phase Two (3 to 5 years)

- Promote IVT Access demand management strategies

Tables 5-23 and 5-24, in accordance with ADA regulations, outlines the cost impacts to the IVT Access service as a result of the recommended service changes and expansion by phase to the IV Transit fixed-route system. (As in the previous section, Scenario One assumes a 1.5 percent annual increase for program cost and all revenue streams, while with Scenario Two STA and LTA funding contributions are held steady over the course of the operating plan. Also with Scenario Two, the LTF funding assumes an increase of 1.5 percent in addition to what is needed to replace the loss of funding from holding the STA funding steady for IVT Access, and LTA funding steady for the municipal dial-a-rides.)

The cost change of $164,508 in FY 2012-13 is based on the number of increased revenue hours associated with the proposed service changes and expansions multiplied by the revenue cost per hour. This calculation uses $82.09 as the average revenue cost per hour based upon the first five months of operations in FY 2011-12.

The recommended system changes represent an increase of 520 annual service hours to accommodate the early morning and late night expansion of Saturday service and 1,484 annual

service hours for implementation of Sunday service. This assumes 10 additional revenue hours for expanded Saturday service hours and 28 revenue hours per day for new Sunday service.

The annual operating cost base year figures are derived from the FY 2011-12 Overall Workplan IVT Access budget of $1,175,994. Each year's annual operating cost is increased by 1.5 percent to accommodate inflation plus the impact of the phase one recommended system changes.

Table 5-23: Demand Response Implementation Impacts, Scenario 1

Recommended Phase	Fiscal Year	Annual Operating Cost (Base)	System Change(s)	Cost Change	Operating Cost (Total)
IVT Access Phase One	FY 2012-13	$1,193,634	Expansion of Saturday service hours in Primary Corridor; Implementation of Sunday Service	$164,508	$1,358,142
IVT Access Phase Two	FY 2014-15	$1,378,514	Expansion of Saturday service in Secondary Service Zone; No impact to ADA service	$0	$1,378,514
IVT Access Phase Three	FY 2016-17	$1,441,483	Realignment of the fixed-route town circulators; No impact to ADA service	$0	$1,441,483

Table 5-24: Demand Response Implementation Impacts, Scenario 2

Recommended Phase	Fiscal Year	Annual Operating Cost (Base)	System Change(s)	Cost Change	Operating Cost (Total)
IVT Access Phase One	FY 2012-13	$1,193,634	Expansion of Saturday service hours in Primary Corridor; Implementation of Sunday Service	$164,508	$1,358,142
IVT Access Phase Two	FY 2014-15	$1,399,192	Expansion of Saturday service in Secondary Service Zone; No impact to ADA service	$0	$1,399,192
IVT Access Phase Three	FY 2016-17	$1,441,483	Realignment of the fixed-route town circulators; No impact to ADA service	$0	$1,441,483

APPENDIX A: STAKEHOLDER INTERVIEWS, DISCUSSION QUESTIONS AND KEY POINTS

Discussion Questions

- What do you think of ICTC service?
- What are your opinions of ICTC buses and other vehicles?
- What are your views of ICTC management and marketing?
- What is the image of ICTC within Imperial County?
- Do the various transit services (Imperial Valley Transit, dial-a-ride services, and other transit service) interface well?
- What do you think the role of public transportation should be in Imperial County?
- Are there any public transportation needs or issues that you would like us to take a closer look at?
- What are the strengths and weaknesses of public transportation in Imperial County?
- Is there anything else you would like the project team to keep in mind as we move forward?

Key Comments Made

- Passengers generally seem to be happy with service, but would like to see more routes
- Some passengers have expressed an interest in a monthly pass
- The on-board perception to passengers of efficiency might be improved by assigning one driver to each route (rather than having drivers change buses mid-route)
- Some members of the public have indicated that they are confused about ICTC service options (fixed-route buses, dial-a-rides, etc.)
- There is a need for Sunday service, but noted that increasing frequency of Monday through Saturday service is also important
- Bus stops should be better maintained (mentioned specifically were those in downtown El Centro)
- ICTC is doing a good job with service, particularly in light of budget constraints
- People are looking for transit options to replace commuting by car because of gas prices, so can ICTC focus on both transit-dependent and choice riders?
- More information is needed on bus schedules, fares, and how to use the system
- Bus stops need more shade, water, benches, and information on service
- Can IVT, Numero Uno, and Calexico Transit coordinate schedules and arrange for transfers between systems?
- Many patients of medical facilities depend heavily on public transportation, especially dial-a-ride
    - Some patients tell health care providers that they can't make appointments on certain days at certain times because of lack of transit service (especially North County residents); however, this may be a result of lack of understanding about the system and transportation options

- Students want more express routes to Imperial Valley College
- There is a need for a route between Imperial Valley College and San Diego State Calexico campus to support coordinated 4-year program scheduled to launch in 2012
- Many questions were raised by stakeholders regarding how dial-a-rides work and how to determine one's eligibility
- Some stakeholders mentioned that a comprehensive information source for all public transportation options within Imperial County would be helpful
    - Examples raised included a centralized website and a "frequently asked questions document" that could be posted in public locations, such as medical facilities, libraries, colleges, etc.
- Need to be able to schedule same day pick-ups and drop-offs for medical facility patients
- Patients ask hospital staff when and where the bus stops and some hospital staff don't have the information the patient needs
- Bus schedules (and stop times) should be posted at bus stops
- How does one qualify for senior discount?
- How does one qualify for disability discount?
- Many passengers would like an express line from El Centro to Imperial Valley College
- Buses get hot and crowded in summer
- Health care providers need specific information regarding how to use system that they can provide to their patients
    - Once patients start using the system they get comfortable quickly, but often medical facility personnel does not have adequate information to provide guidance to patients
- Need a hotline number for people to call with questions about how to use the system
- Need better coordination between services (dial-a-ride, fixed route buses, etc.)
- Elderly/disabled can't walk 3-4 blocks between bus stop and their destination
- Need service to get discharged patients home in a timely manner (often, patients that get discharged in the middle of the day have to wait several hours for family members to be able to pick them up)
    - 24-hour on-call van
    - Consider cost-sharing between medical facilities and ICTC
- "Bus Books" need to be in more places so that it is easier for the public to get them
- ICTC's image could be improved through more education/marketing regarding the benefits of public transportation, transportation options and service information
    - Currently, it seems that system is largely used by transit-dependent; additional marketing/education could bring in more choice riders
- Consider a carpool program with Yuma to serve commuting population
- Consider vanpools to serve large employers
- Is dial-a-ride open to the general public?
- Consider large "snowbird" population in planning

    - Can temporary winter residents in recreational vehicle parks and mobile home parks use public transportation to access services, such as grocery stores, etc.?
- Does ICTC work with planning department to make sure transit is considered in approving new development?
    - Better coordination is needed between planning departments and ICTC
    - When new development is approved, consider how many vehicles it will bring and how to promote public transportation
- ICTC should coordinate with Yuma Metropolitan Planning Organization
- Buses should run later, especially in the summer when it is too hot to do much during the day
- Many public transportation users come from Mexicali so resources are spread thin
- Passengers appreciate increase in bus frequency
- Buses need more bike racks
- Buses need more wheelchair spots
    - Sometimes wheelchair users have to wait for the next bus because the wheelchair spots are occupied

APPENDIX B: BUS STOP WORKSHOPS, DISCUSSION QUESTIONS AND KEY POINTS

Discussion Questions

- What aspects of bus service are working well?
- How could bus service be improved?
- Are there service issues that need a closer look? (e.g., senior service, disabled service, transportation to evening or weekend work shifts)
    - Does bus service start early enough in the morning for you and run late enough into the evening?
    - Does weekend service work out ok for you?
    - Can you get everywhere you'd like to go on the bus?
    - Do you make your connections ok?

Key Comments Made

- Overall, service functions very well and riders are happy; some riders see need for more frequent and/or timely service
- Interest in "express" or "direct" service on some routes
    - Calexico – El Centro
    - Calexico – Brawley
    - Calexico – Imperial Valley College
- Many people would like to see Sunday service and/or more Saturday service
- Need for fare/route/schedule information at bus stops and Bus Book could be easier to read
- Buses that do not run on-time (early or late) inconvenience people that need to make it to/from work or school or medical appointments
- Need for more buses serving IVC, particularly to/from Calexico
    - Sometimes morning buses are so full they have to pass up passengers waiting at stops
    - Most buses are on-time, but buses to/from IVC tend to be late
    - Some would like to see more buses that line up better with class start and end times
- Some trips between cities take too long because buses route through neighborhoods before heading to next city on route
- Some would like to see cleaner bus stops with benches and more shade
- Many people are happy with route coverage in general, but would like to see more frequent service

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