

**YUMA METROPOLITAN
PLANNING ORGANIZATION**

TRANSIT DEVELOPMENT PLAN

for



YUMA COUNTY AREA TRANSIT

Final
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Submitted by

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Transportation Marketing • Planning • Audits



EXECUTIVE SUMMARY

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EXECUTIVE SUMMARY

The Yuma County Area Transit (YCAT) Transit Development Plan provides both short-term (Launch) and long-term (Service Expansion) strategies. It is designed to guide transit management, operations, and investments. The Transit Development Plan provides specific objectives and action items required to develop a fixed-route transit service throughout the urbanized portions of Yuma County.

The study had three (3) objectives:

1. **Address the public transportation needs of current and potential riders, with a particular focus on the mobility-disadvantaged;**
2. **Reduce public subsidy of the services by mode-shifting able-bodied demand-response riders (Dial-A-Ride) to more cost-effective fixed-route alternatives;**
3. **Present a balanced (demand vs. funding) and technically sound route system, infrastructure, and operations plan.**

The TDP was guided by input from extensive public surveys, customer and community outreach, interviews with key stakeholders, and public meetings.

Due to a funding setback, the initial phase of transit discussed within this report was reduced to one vehicle after four months of operation. This plan assumes the funding will become available again in the future and that the plan will be resurrected.

EVALUATION

The YCAT Transit Development Plan considers physical characteristics of the service area to ensure a cohesive fit with the community in which it will operate. The impact of Yuma's climate was taken into account in determining vehicle selection, customer amenities (e.g., bus shelters and benches), and operating headways. The heritage and demographics of the Yuma Crossing provide historical insight into the needs of potential riders and key stakeholders. Socio-economic and demographic aspects, such as transit-dependency, geographic disparity, and household income, are incorporated into the Plan.

DEMAND-RESPONSE EVALUATION

At the time of the study initiation, the then-existing Greater Yuma Dial-A-Ride (DAR) operated six days per week (from Monday through Saturday), from 6:00 a.m. to 6:00 p.m. The service was open to the general public.

Through quantitative and qualitative assessment, it was determined DAR riders placed high value upon the following service attributes;



1. On-time performance,
2. Trip duration,
3. Safety onboard vehicle.

Optimizing these attributes should be a priority of DAR operations. YMPO contracts with the Saguario Foundation (dba Saguario Transportation Services) for Dial-A-Ride services in the urbanized Yuma area. STS provides daily administration, dispatch, and operation of curb-to-curb demand-response service. In addition, STS is responsible for furnishing drivers, maintenance, and facilities for operating the service. YMPO provided Saguario with five vehicles, as well as one-half the cost of an automated dispatching system.

In addition to DAR, STS operates transportation services under contract to approximately ten area medical and social service organizations. The YMPO-Saguario agreement allows the operator to *share* trips and commingle passengers. As a result, it is not possible to measure the true effectiveness, efficiency, and productivity of the DAR program. Therefore, analysis relies primarily on survey data and functional review.

Under the YMPO-Saguario agreement, the operator receives a flat fee per passenger of \$7.56 within the urban area and \$7.76 outside the urban area with a specified not-to-exceed amount. In addition, Saguario retains all fare revenue.

At the time of the review, Greater Yuma DAR was operating without the American with Disabilities (ADA) certification program.

FIXED-ROUTE EVALUATION

Fixed-route transit service is operated by a private contractor; San Luis-Yuma Transit Company (dba Valley Transit). At the time of the study, a fixed-route service operated linking San Luis and Yuma. A second fixed-route alignment (central Yuma to the Foothills) had been introduced in October 2001. Monthly ridership on the San Luis-Yuma route peaked in February 2002 at 189. On the Yuma-Foothills route, daily ridership reached 37 before it was discontinued in September 2002.

PUBLIC INVOLVEMENT

The purpose of a comprehensive public involvement strategy was to ensure proactive public participation and consensus development in all aspects of the planning process. The process required (1) developing complete information; (2) providing opportunities for comment; and (3) promoting early and continued involvement. The approach included:

- On-board surveys (both demand-response and fixed-route),
- Community telephone and intercept surveys,
- Public Outreach Plan,
- Stakeholder interviews,

- Community meetings.

Throughout the various public outreach activities, the community's commitment to the provision of public transit services was noted. Nearly 95 percent of these persons interviewed expressed a belief that local government should provide public transportation for the community in general, and specifically for persons who do not drive or who do not have access to personal vehicles.

RECOMMENDATIONS

The Transit Development Plan recommendations are divided into four categories:

1. **Demand-Response Recommendations** describe how, with limited resources, the demand-response service could be modified to provide improved service to its primary market: seniors and persons with disabilities;
2. **Fixed-Route Recommendations** present a strategy for further development of the fixed-route service to serve the general population (particularly low-income and transit dependent persons) and support the area's economy (with a focus on both work-related and discretionary travel);
3. **Marketing Recommendations** describe how to maximize the YMPO's Return on Investment through a strategic marketing program;
4. **Functional Management Recommendations** present a best-case scenario for governing and managing transit services in the Yuma County area.

DEMAND-RESPONSE RECOMMENDATIONS

The provision of public transit is often times a challenging enterprise, and can be especially so in an area with limited population such as Greater Yuma. Therefore, it is imperative to balance demand with funding, to minimize public subsidy, and to focus resources appropriately. YMPO, like most transportation administrating entities, has opted to focus its demand-response resources on the traditional service patrons: the elderly and persons with disabilities.

The recommendations presented within this report are designed to enhance productivity, ensure compliance, and improve service delivery to the core customer groups.

AMERICANS WITH DISABILITIES ACT (ADA)

It was recommended the YMPO immediately adopt a comprehensive ADA certification process and establish eligibility guidelines. While federal guidelines provide the framework, they also provide some flexibility to the administrating entity to address the relative needs of its customers and the environment in which it operates. (*Note: YMPO implemented this recommendation in late 2002.*)



NO SHOW AND CANCELLATIONS POLICY

To complement the recommended formation of the ADA certification process, the report recommended the YMPO review its *no show* and cancellation policies. While not enforced, the existing policies and procedures go beyond the intent of the ADA, and in some aspects, could be considered discriminatory. Therefore, valid and best-practice policies and procedures should be adopted and implemented as soon as possible.

RECORD KEEPING

To support ADA compliance, transit providers must maintain adequate records of certification requests, reviews completed, notification provided to applicants, and any other data indicating regulatory compliance that may be required. Decisions made throughout the ADA review process (e.g., completeness of application, need for additional information, determinations, requests for appeals, etc.) should also be recorded and retained for the stipulated period.

Further, it is recommend the YMPO require its operations contractor to collect and report the following operational data minimally on a monthly basis.

1. Ridership by service area,
2. Revenue by service area,
3. Vehicle Revenue Hours,
4. Vehicle Revenue Miles,
5. Trip denials,
6. Trip cancellations,
7. Average response time,
8. Complaints or comments,
9. On-time performance,
10. Road Calls/Breakdowns,
11. Maintenance Reports,
12. Accident Reports (preventable and non-preventable),
13. Non-eligible ridership.

VEHICLE USAGE

Commingling Dial-A-Ride trips with trips provided for other clients presents a number of contract compliance concerns. The YMPO needs to ensure that rider *commingling* does not negatively impact the efficient operation of its Dial-A-Ride program. In **NO** instance, should a DAR passenger be charged a fare that is higher than the adopted and published rate.

SERVICE ELIGIBILITY

One of the more significant challenges facing the YMPO is identification and acquisition of sufficient funding. To ensure the YMPO's demand-response service addresses the basic mobility needs of the service's core customer markets (i.e., seniors and persons with disabilities), as well as optimally allocating the associated resources (i.e., expenditures), the recommendation is for the YMPO to limit service eligibility to persons with disabilities, seniors, and non-seniors within the demand-response service area

without reasonable access to fixed-route transit alternatives; in descending priority order. (Note: YMPO has limited ridership for DAR to seniors and persons with disabilities. However, this may have a negative impact on Yuma area residents in light of the YMPO's recent decision to suspend operation of the YCAT fixed-route service.)

FIXED-ROUTE OPERATION RECOMMENDATIONS

The YCAT Transit Development Plan is divided into two implementation periods: **Launch** and **Expansion**. The **Launch Plan** describes an immediate restructuring of the current transit operation to provide enhanced service to more people using existing resources. The **Expansion Plan** presents a strategy for developing the YCAT program throughout a three-year planning horizon.

LAUNCH PLAN

The immediate restructuring of the fixed-route system, operated as Valley Transit, has three components:

1. **Intercity Express Route** (San Luis-Yuma-AWC) combines and streamlines the two intercity routes (Foothills-Yuma and San Luis-Yuma) into one route;
2. **Central City Circulator** creates a new bi-directional circulator within Yuma's central business district.
3. A new **Transfer Center** located at the **Southgate Mall**, serves as a time-transfer (i.e., pulse) point between the two routes.

BUS STOP CRITERIA

Industry-best practices were employed to determine the criteria for each bus stop location. As Yuma County Area Transit (YCAT) expands its route system, the criteria should also be used to develop future bus stop locations. The criteria include both *scheduled* (time points) and *casual* stops. Proper placement of stops on new routes ensures efficient and effective operation.

FARE POLICY

Based on the travel patterns and demographics of the average YCAT rider, the recommendation is for the YMPO to introduce both a single-fare Day Pass and interline transfers:

- Single fares of one dollar for the Central City Circulator and three dollars for the Intercity Express would allow a single one-way trip;
- Day Passes allowing unlimited use of either the Central City Circulator or the Intercity Express valid on day of issue, would be priced at five dollars;



- Persons riding the intercity service could transfer to the Central City Circulator free of charge to complete a one-way trip. For the return trip, the rider would pay the one-dollar circulator fare at time of boarding and request a transfer. The transfer translates to a one dollar *credit* toward the three dollar Intercity Express cash fare;
- Monthly passes providing unlimited Intercity Express and Circulator travel during month of issue, would be priced at seventy dollars;
- Mid-day (non-peak) promotional rates (Circulator and Intercity Express) for seniors and persons with disabilities would continue, reflecting reduced-fare criteria contained within the ADA.

EXPANSION PLAN

The Expansion Plan is designed to incrementally expand the level of public transit provided, balancing demand for the available funding. The proposed implementation plan includes a **West City Circulator** twelve months following launch of the Central City Circulator, an **East City Circulator** in 24 months, and a **Crosstown Circulator** in 36 months. Each of the proposed routes would operate between 7:00 a.m. and 7:30 p.m., Monday through Saturday.

The proposed Circulator implementation plan is designed to build upon the relative strengths of the respective elements, employing market-driven strategies. An anticipated benefit of the proposed implementation is an associated reduction in demand-response program costs, as the combined Intercity Express/Circulator strategy will provide affordable and convenient travel alternatives to the majority of persons residing within the urbanized portions of Yuma County.

PERFORMANCE MEASUREMENT SYSTEM

Implementation of a Performance Measurement System is recommended as soon as possible. This recommendation is driven by three system goals:

- Goal I:** Fulfill mobility needs of the elderly, the disabled, and other transportation-disadvantaged individuals (e.g., youths and low-income persons).
- Goal II:** Provide safe, reliable, and affordable transit service to reduce traffic congestion, stimulate economic vitality, and improve air quality.
- Goal III:** Improve the efficiency and economy of operations and ensure continuity of transit services.

The above goals relate to definitive objectives with specific measures. Measures and standards evaluate each program's effectiveness in attaining its adopted public transit objectives, goals, and mission.

MARKETING RECOMMENDATIONS

The report recommended YMPO embrace a strategic marketing strategy inclusive of strong *branding* and *positioning* elements.

BRANDING STRATEGY

The identity of Yuma County Area Transit, YCAT, should be reflected in its logo and all aspects of its operations. *Clean, fresh, and inviting* are key attributes, which should be represented in the *branding* combined with a splash of fun. YCAT should project an illusion of progress and forward momentum.



POSITIONING STRATEGY

To attract the broadest ridership possible, YCAT's positioning strategy should capitalize on its convenience, value, and ease of use. Doing so will focus on the independence public transportation provides to persons with limited transportation alternatives. To be successful, YCAT's positioning must be supported by its branding and service structure.

MARKETING STRATEGIES

- Strategy A: **Target** specific markets with a high propensity for use.
- Strategy B: Develop a **grassroots** community marketing strategy by concentrating on distributing readily available and easy-to-understand transit information.
- Strategy C: Raise **visibility** of YCAT within the community and key stakeholders through consistent use of *branding* and *positioning* elements.

FUNCTIONAL MANAGEMENT RECOMMENDATIONS

Best-practices recommendations are recommended for enhancing the overall management of YMPO-funded transit services.

ORGANIZATION

After a review of the advantages and disadvantages of the organizational alternatives, it is recommended YMPO continue as the governing body responsible for the administration of public transportation in the region. The YMPO would provide policy direction and continue to function as the contracting entity.

TRANSIT MANAGEMENT

Further, it is recommended the YMPO contract with an independent transit management firm to coordinate the daily management of its transit operations. While the YMPO would continue as the legal contracting entity, it would turn over the day-to-day management (such as operations contractor compliance) to a qualified outside firm.

TRANSIT SERVICE AND OPERATIONS

To ensure the YMPO's transit services and operations achieve the goals and objectives outlined within this report, the following action plan was recommended:

- Operations contractor should be available for liaison activities;
- Confidentiality should be maintained;
- YMPO should retain authority over operating hours and days;
- Changes in service level within certain parameters will not materially affect contract;
- Service Quality Standards will be maintained including on-time performance, service productivity, safety, and service efficiency;
- Fleet requirements should be within FTA guidelines;
- A well-defined maintenance program should include a preventative maintenance program and directives for performing major repairs;
- Standards for well-maintained and clean vehicles should be specified;
- Procedures for the safe and prudent handling of fare receipts should be in place;
- Qualifications and responsibilities for all personnel involved in the operation should be delineated;
- Adherence to the Federal Drug and Alcohol Testing program should be a requirement;
- A comprehensive operator training program, both initial and recurrent, should be conducted by *certified trainers*.
- Facilities should meet generally accepted industry standards.

To achieve consistency with industry practices, compensation should be based on Vehicle Service Hour (VSH) for both demand-response and fixed-route services.

YMPO should tighten its reporting and documentation requirements to include submission of monthly reports and operating statistics prior to processing the operations contractor's monthly invoice.

CAPITAL RECOMMENDATIONS

Customer signage and amenities play a key role in supporting a quality service and in attracting new customers. Due to the high temperatures in Yuma, consideration should



be given to providing shaded shelters at all high volume stops. Funding for the shelters and other bus stop amenities, such as benches and shelters may be provided through an advertising agreement.

If the YMPO is to continue to provide the level and quality of service recommended in this report, the fixed-route operations fleet will have to be replaced. The current fleet provided by the existing fixed-route operations contractor is not consistent with FTA guidelines. Two options are available to YMPO to upgrade the rolling stock: Lease or Buy.

Under the lease option, YMPO could specify a new vehicle fleet in both its Request for Proposal and its operations contract when YCAT transit operations are sourced. Under this scenario, the YMPO should expect the operating cost to increase 12 to 17 percent on an hourly basis.

The second option available for the YMPO is to secure its own fleet and provide it to the contractor for use in the operation of the fixed-route service.

FINANCIAL RECOMMENDATIONS

The primary source of funding for YCAT would be Section 5307 federal grants. Section 5307 is a formula grant program for urbanized areas providing capital, operating, and planning assistance for mass transportation. This program was initiated by the Surface Transportation Act of 1982 and became FTA's primary transit assistance program in FY 1984. Funds are apportioned to urbanized areas utilizing a formula based on population, population density, and other factors associated with transit service and ridership. Section 5307 is funded from both General Revenues and Trust Funds.

Section 5307 urbanized area formula funds are available for transit improvements for 34 urbanized areas over 1 million population, 91 urbanized areas with populations between 200,000 and 1 million, and 283 urbanized areas between 50,000 and 200,000 population. For urbanized areas over 200,000 in population, funds flow directly to the designated recipient. For areas under 200,000, the funds are apportioned to the Governor of Arizona for distribution.

Several changes became effective to this program in fiscal year 1998 with the passage of TEA-21. One percent of appropriated Section 5307 funds is set-aside to be used for transit enhancement projects that physically or functionally enhance transit service or use. Preventive maintenance, defined as all maintenance costs, became eligible for FTA capital assistance at an 80 percent Federal share. FY 2001 operating assistance is available only to urbanized areas with populations under 200,000 with some exceptions. Up to 10% of an area's apportionment may be used for complementary ADA paratransit service cost.

Yuma has received LTAFII funds to provide the required local match to the federal funds. However, due to the revenue shortfall at the State level, the distribution of LTAF



II funds has been curtailed. However, this report assumes that these funds will be become available at previous levels within the next two years. Additional funding from the county and cities may be required.



INTRODUCTION

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INTRODUCTION

The Yuma Metropolitan Planning Organization (YMPO) is responsible for coordinating and establishing a comprehensive transportation planning process for Yuma County. Further, the YMPO provides a regional forum to assure transportation and air quality planning issues, and the implementation of resulting projects, are identified and coordinated by local, state, and federal agencies, as well as the general public. Since 1984, its directive has been *Local Governments and Citizens Working Together*.

YMPO is comprised of representatives from local government and transportation authorities including the cities of San Luis, Somerton, and Yuma; Town of Wellton, Cocopah Reservations, Yuma County, and Arizona Department of Transportation.

A primary goal of the YMPO is to—

Provide the continual development of a complete, dependable, efficient, safe, aesthetic, and economical transportation system, bearing in mind that our quality of life is paramount and that transportation needs must recognize the specific demands of government and businesses, including those of urban areas, rural and agricultural interests, and military operations.

Public transportation is a valuable community asset that can support and stimulate economic growth, provide essential mobility, and reduce traffic congestion. The objective of this document is to identify and develop the specifics relating to YMPO's Fixed-Route Transit Development Plan (TDP).

STUDY OBJECTIVES

The Yuma County Area Transit (YCAT) Transit Development Plan covers both a short term (Launch Plan) and long term (Expansion Plan). It is designed as a guide for transit management, operations, and investments during this timeframe. The YCAT Transit Development Plan provides specific objectives and action items required to develop fixed-route transit services throughout the region.

The study had the following three (3) objectives:

- 1. Address the public transportation needs of current and potential riders, particularly lower-income and disenfranchised groups, such as non-English speaking individuals;**
- 2. Reduce overall public transportation costs by moving general public demand-response riders (Dial-A-Ride) to more cost-effective fixed-route alternatives;**



3. Structure a technically sound route system, infrastructure, and operations plan.

The Plan was guided by the public input received from extensive survey methodology and interviews and included public meetings.

The original intent of the Transit Development Plan was to develop the components necessary to initiate full fixed-route and/or deviated fixed-route public transit operations sometime between Autumn 2003 and Spring 2004. Due to funding issues, the timeframe has been delayed indefinitely. The strategy was to develop a turnkey transit operations contract protocol.

During the course of the study, YMPO made the determination to initiate a city circulator within the city of Yuma during Autumn 2002 and to phase in additional routes over the following one to two years.

To accomplish this objective, the Operations Plan is divided into two phases:

Phase 1: Initial Transit Structure (Launch Plan),

Phase 2: Development of Route Structure (Expansion Plan).

Although the city circulator was initiated, YMPO voted to suspended operations in March 2003 due to funding limitations.

YMPO established the following primary goals for public transportation within its area:

- 1. Provide mobility to the community's elderly and disabled persons;**
- 2. Provide mobility to people who have no other travel options;**
- 3. Support the economic vitality of the community by enabling citizens to commute to their places of employment;**
- 4. Provide transportation options to citizens to reduce traffic congestion and improve air quality.**

To accomplish these objectives, the following strategies were crafted to use in developing the transit network. The strategies provide a framework for the development of the plan and expansion of the system:

- **Future new routes should be incrementally added as demand warrants.**
- **The system should transport people from *where they are* to *where they want to go* and serve key destinations. The need for transfers should be curtailed to the degree possible.**
- **Coverage should be maximized to provide availability to the greatest number of residents.**
- **Frequencies should be minimized. Headways, the time intervals between vehicles moving in the same direction on a particular route, should be two hours or less on intercity routes. On local intracity routes, the headway should not exceed one hour.**
- **Potential transit customers must be informed about the service, its cost, and how to use it.**

- To the extent possible, the transit system should encourage ambulatory riders to use the fixed-route system. The demand-response system should concentrate on providing seniors and persons with disability equal access to transportation as required by the American with Disabilities Act (ADA).

SERVICE AREA

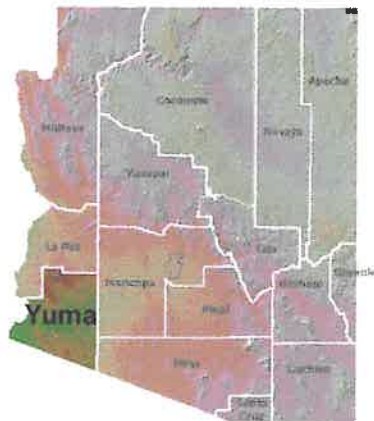
Accomplishing the plan's objectives begins with a thorough understanding of the community, specifically its geography, climate, heritage, demographics, and economics. A well-planned public transit system considers the geography of the service area in order to ensure a fit with the community in which it will operate. Climate must also be considered. Weather conditions affect vehicle selection, customer amenities (e.g., shelters), and operating headways. A community's heritage and demographics provide fundamental insight into the respective needs of its riders and stakeholders. Finally, the public transportation system is a vital component of a community's economic composition.

GEOGRAPHY

Located in the Yuma and Gila valleys of the southwestern corner of Arizona, Yuma is equidistant from Phoenix and San Diego. The Colorado River forms its western border with California and Mexico. Mexico abuts the county on the south, La Paz County on the north, and Maricopa and Pima counties to the east.

The county, in southwest Arizona, encompasses approximately 5,561 square miles of desert interspersed with rugged mountains. The topography is flat with few hills or mountains. Federal and State governments own 89% of the county's total land and 11% is privately owned.

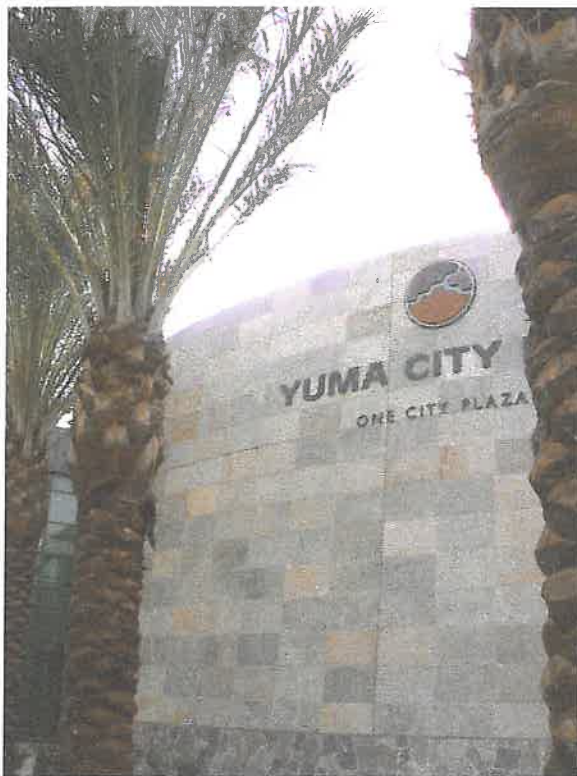
An abundance of arable land in valley regions, coupled with a warm, dry climate, results in a thriving agricultural business. There are 237,742 acres of farmland in Yuma County, with 195,416 cropped. The Colorado River is the source of irrigation water for the Yuma Mesa and surrounding valleys. The county agricultural water use totals 920,000 acre-feet per year. Crops grown east of the Wellton-Mohawk project and east of San Luis are irrigated from wells.



Interstate-8 travels along the north edge of the City of Yuma and cuts through the southern half of the county. The Foothills community and the City of Wellton lie along the I-8 east of Yuma. Highway US 95 transverses the western edge of the county in a north-south direction from the City of San Luis on the Mexican border, through the City of Somerton and Cocopah Indian Reservation, into the City of Yuma, east across I-8 before turning north again.



The county roads and city streets were constructed in a simple grid pattern. The East Main Canal divides the City of Yuma in a north-south direction. It joins the West Main Canal, which traverses the northern section of the city, near Avenue A and 1st Street. The canals are the only significant obstacle to traffic flow along the grid (not all streets cross the canal).



Downtown Yuma and City Hall are in the northern part of the City directly southwest of the Colorado River and south of Yuma Crossing State Park. The new City Hall was completed in June 2002 and is part of a redevelopment effort in the downtown area.

With accompanying population growth, traffic in the populated southwestern corner of the county has increased significantly. According to YMPO's 2001 Quarterly Traffic Count Program, traffic increased by 3.0 percent between 2000 and 2001 and 1.1 percent the previous year. The area encompassing the Foothills (East Yuma Mesa subarea) experienced the most dramatic increase (4.3 percent between 2000 and 2001), followed by the South Valley subarea (San Luis to Yuma), which grew at 4.0 percent. Major

construction along US 95 between San Luis and Gadsden may have dramatically affected traffic patterns in that area, which were down 4.0 percent between 1999 and 2000.

Analysis of traffic growth from 1993 to 2001 demonstrated that summer traffic grew by 16 percent while winter traffic grew by 11 percent. Historically, the peak month is

February. Traffic counts in winter are approximately 40 percent higher than in summer. Winter traffic counts range from 24 percent (West Urban subarea which includes the central part of the City of Yuma) to 110 percent (East Yuma Mesa subarea which encompasses the Foothills) greater than summer traffic.

Within the City of Yuma, the major north-south arterials are Avenue C, Avenue B (Highway US 95), Avenue A, 4th Avenue (Interstate 8 Business route), and Pacific Avenue. The major east-west arterials are 1st Street, 8th Street, 16th Street (Highway US 95), 24th Street, and 32nd Street. Most major retail centers and traffic generators are on one of these arterials.

CLIMATE

Yuma County is located in the heart of the Sonoran Desert with an average elevation of 140 feet. It has a classic low desert climate with extremely low relative humidity and very high summer temperatures. Yuma is Arizona's warmest winter city and the sunniest year round place in the US, with an annual average of 4,133 hours of sunshine. Stores, shops, restaurants, theaters and homes are air-conditioned year round.

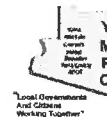


Average summer highs exceed 100 degrees F for four months; winter average maximum temperatures are in the sixties and seventies. The average annual high temperature is 87.7 degrees F and the average annual low temperature is 53.5 degrees F. Yuma County averages between 340 and 350 days over 32 degrees F. Some areas are almost frost-free. Sunshine averages 93% of possible time. Average yearly rainfall in Yuma County is 2.94 inches.

In 1990, the federal Clean Air Act (CAA) amendments called for any area not meeting the National Ambient Air Quality Standards (NAAQS) for one or more air pollutants to be designated as a NONATTAINMENT area for that pollutant(s). Given the Yuma area's NONATTAINMENT designation, it was required to prepare a Primary Measurable (PM-10) Plan that, when implemented, would bring Yuma into compliance by December 31, 1994.

The YMPO 2001 Air Quality Conformity Analyses approved by FHWA concluded that there were no measured violations of the PM-10 standard in the Yuma NONATTAINMENT area during the past seven years. Further, PM-10 emissions continue to be less than 1990 values, and less than the budget permitted by the 1994 Yuma PM-10 NONATTAINMENT Area State Implementation Plan (SIP) Revision.

The Arizona Department of Environmental Quality (ADEQ) is in the process of developing an air quality maintenance plan. Conformity Analyses demonstrate the



Yuma area is making significant progress toward maintaining the National Ambient Air Quality Standard for PM-10. The following substantiate this conclusion:

- The Reasonably Available Control Measures (RACMS) included in the Yuma PM-10 SIP continue to be implemented;
- The YMPO's adopted Transportation Plan and Program have demonstrated conformity with the SIP over the past six years (with 1999 representing the 8th year); and

There have been no PM-10 violations of the NAAQS since 1991.

However, dust storms arrive suddenly in the form of an advancing wall of dust and debris, which may be miles long and several thousand feet high. Blinding, choking dust quickly reduces visibility, causing accidents that may involve chain collisions.

EXHIBIT 2-1 YUMA AVERAGE TEMPERATURES & PRECIPITATION

MONTH	AVERAGE DAILY TEMP	AVERAGE DAILY MIN	PRECIPITATION INCHES
JANUARY	68.4	36.8	0.45
FEBRUARY	73.5	39.6	0.21
MARCH	78.0	44.1	0.20
APRIL	86.0	50.5	0.10
MAY	93.9	56.9	0.03
JUNE	100.8	63.1	0.00
JULY	106.8	73.6	0.37
AUGUST	105.4	74.6	0.31
SEPTEMBER	101.5	66.4	0.30
OCTOBER	91.4	54.4	0.30
NOVEMBER	78.2	44.4	0.28
DECEMBER	69.3	38.0	0.39
YEAR	87.7	53.5	2.94

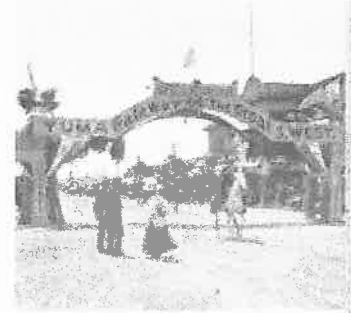
Note: U.S. Average = 100 4th Quarter 1999

SOURCE: American Chamber of Commerce Researchers Association

HERITAGE

While Yuma's earliest recorded history wasn't until the 16th century, the first inhabitants were members of Native American tribes that gathered along the banks of the Colorado River. These were the Quechans, the Cocopahs, and the Mohaves. Until the early 1950's the Quechans were known as Yumas, which in all probability led the Territorial Legislature to give Yuma its present name. These colorful and diverse tribes set the stage for a city rich in American culture and tradition.

Yuma's colorful recorded history first began in 1540 when the Spanish explorer, Hernando de Alacon became the first white man to visit the town's present site. From this time forward, until 1854, Yuma was under the flags of Spain and Mexico. In 1854, under the Gadsden Purchase, Yuma became a territorial possession of the United States. Because of its location where the Colorado and Gila Rivers converge, in the 1850's Yuma became a major river crossing for early California gold seekers, as well as commerce being shipped east and west.



With the founding of Fort Yuma in 1849, steamboats soon traveled up the Colorado River from the Gulf of California, carrying goods to support the fort, as well as other military posts in the state and with these goods came people from a variety of backgrounds and interests. Soon after, the railroad entered into the shipping of commerce and Yuma became a community rich in cultural diversity and prosperity.

During this time Yuma was known as Colorado City, then in 1862 the city was renamed Arizona City. In 1873, the Territorial Legislature renamed it Yuma.

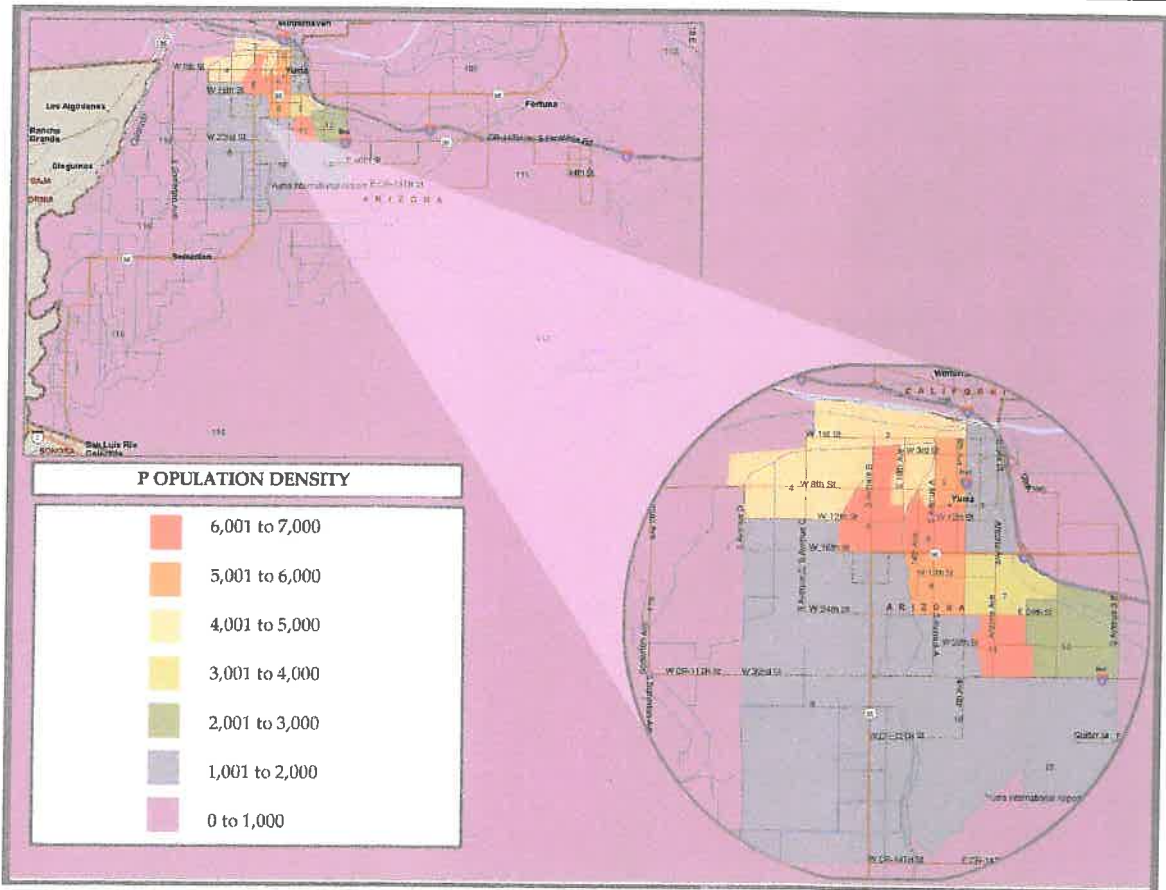
In 1876, the Arizona Territorial Prison was built, and until 1909, housed some of Arizona's most notorious and dangerous criminals. The prison became a symbol of frontier justice and still stands. The rich tradition of Yuma is once again coming alive in the boutiques and restaurants, shops, and businesses in the revitalized downtown area. Shelters, benches, and other amenities in the downtown area will be required to conform to the historic standards established by the City.

DEMOGRAPHICS

Throughout the 1990s, Yuma had a composite population growth rate of 49.7 percent, making it the third fastest growing community in the country, behind Las Vegas, Nevada and Naples, Florida. Today it is Arizona's third largest metropolitan area, surpassed only by Phoenix and Tucson. Within the county, highest growth occurred within the City of San Luis (264 percent) and the Fortuna foothills (165 percent).

The majority of land area in the county has low populations. However, portions of the City of Yuma have moderate urban densities suitable to support a public transportation system.

EXHIBIT 2-2 YUMA POPULATION DENSITY BY CENSUS TRACT



According to Census 2000, 16.5 percent of the county's population is classified as seniors, significantly above the national average of 12.4 percent (21.3 over the age of 60 compared to 16.2 percent nationwide). Further, during the winter months, the population of Yuma expands significantly due to the influx of *snowbirds*; out-of-area retirees who make their winter home in southwestern Arizona.

The median age in Yuma County is 34 years of age. A review of individual communities shows that the age distribution in the City of Yuma is similar to the county as a whole. However, in the unincorporated areas east of Yuma, the percentage of residents over 60 is much higher. In the Town of Wellton, the median age is 47 years. The median age in the Foothills-Fortuna area jumps to 63 years old with 56.3 percent of the residents over 60 years of age.

Nearly 2,000 retired Navy and Marine Corps personnel live within a 40-mile radius of Yuma. Seniors and retired persons are important market segments to transit providers due to decreased mobility and increased need for essential services such as healthcare.

The county's population is composed chiefly of persons of Hispanic heritage (50.5 percent) and Caucasians (44.3 percent). Two communities feature even greater Hispanic based population groups: San Luis (89 percent) and Somerton (95 percent). Traditionally, persons of Hispanic heritage have been strong supporters of public transit services due to economic, cultural, and socio-demographic factors.

ECONOMY

Yuma County's strategic location vis-à-vis California and Mexico combined with established transportation routes have fostered strong economic growth. Key economic elements include:

- **Agriculture**

More than 225,000 acres were actively harvested in Yuma County in 1997. Total crop and livestock gross returns totaled over \$1.6 billion. Of that total, field crops, fruits, and vegetables accounted for 87 percent, while livestock products accounted for 13 percent.

- **Tourism**

Tourism contributes more than \$600 million annually to Yuma County's economy. Winter season tourism, representing \$434.7 million, and international shoppers, representing \$96.8 million, add significantly to the local economy.

- **Military**

As key employers in Yuma County, the Marine Corps Air Station and Yuma Proving Ground impact nearly every economic segment.

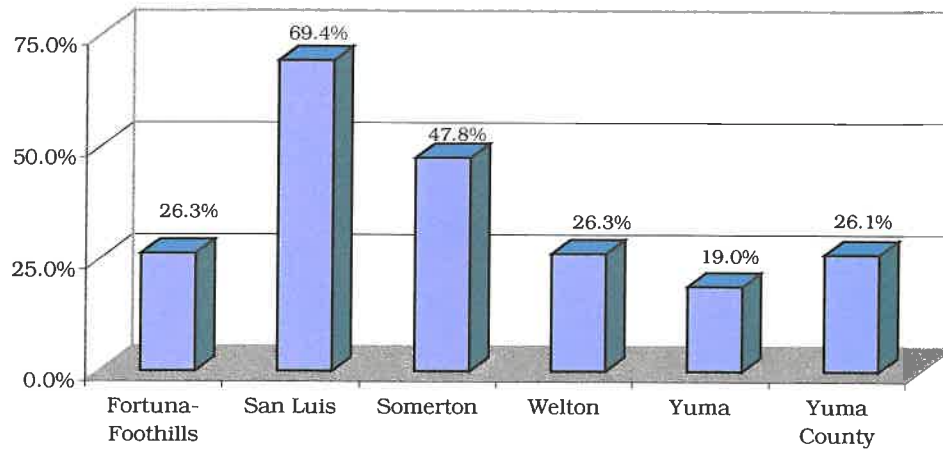


In addition, a growing number of American and Mexican corporations have discovered the financial advantages of cross-border manufacturing, evidenced by the growing number of twin plants and production-sharing facilities. Companies such as Bose Corporation (high quality stereo equipment), Spectra Star Kites (world's largest manufacturer of kites), Power-One (high-tech power units), and Olguita de Mexico (textile manufacturer) have located to the area.

Despite growing economic activity, the region continues to experience unfavorable annual unemployment rates. Averaging 26.2 percent countywide, smaller communities such as San Luis (69.4%) and Somerton (47.8%) have even higher rates.

A dependable, affordable, and accessible transportation network is a critical element of economic development

EXHIBIT 2-3 YUMA COUNTY UNEMPLOYMENT RATES



Source: Yuma Economic Development Council

PREVIOUS TRANSIT PLANNING EFFORTS

The first *Regional Transportation Plan* covering Yuma countywide area was adopted in 1984. Based on the *Plan*, a five-year *Transportation Improvement Program* was developed. In 1989, the YMPO adopted the first *Plan Update* titled the *1990-2010 Countywide Transportation Plan*. The *Plan* was again updated in 1991 and 1998. Another Update is now in progress.

The *Yuma Metropolitan Planning Organization's Short Range Transit Plan*, covering the period from 2001 through 2005 was developed as part of the YMPO's 25 year *Regional Transportation Plan*. The SRTP was designed for the development of transit services in Yuma County. The Short Range Transit Plan divided into two distinct phases: FY 2001-02 and FY 2003-05.

- **Phase 1: FY 2001-02** called for the creation of a transit service identity (i.e., service branding), continuation of the existing demand-response service with minor modifications, and implementation of two regional fixed-route demonstration projects.
- **Phase 2: FY 2003-05** called for the construction of transit passenger facilities (the Multi-modal Transportation Center, bus stops, shade structures, etc.) and the addition of new routes (Yuma City Circulators). The Dial-A-Ride system would concentrate on rural areas.

The *YCAT Transit Development Plan* concentrates on Phase 2.

Other transportation planning documents reviewed included the following:

- *YMPO Area Analysis of Transit Service Options (1991)*,
- *Transit Development Plan for the Yuma Regional Area (1993)*,
- *Identification and Analysis of Unmet Transportation Needs (1988)*,

- *Yuma Multi-Modal Transportation Center (2000),*
- *Dial-A-ride Transit for Yuma County (1994).*

DEMAND-RESPONSE EVALUATION

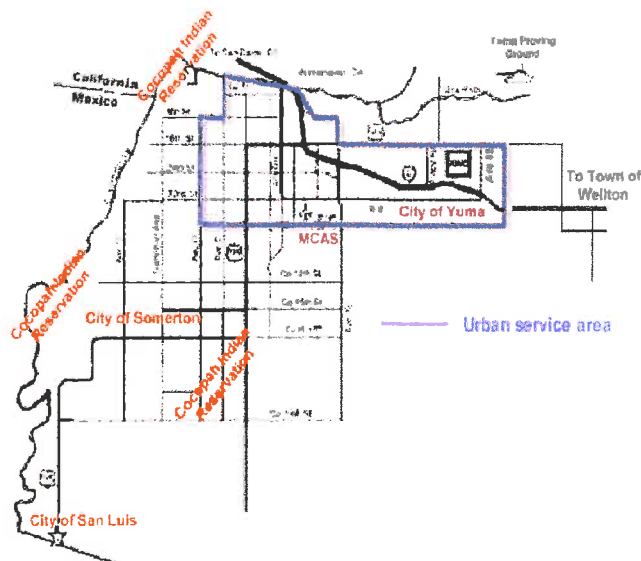
In 1999, the Yuma Metropolitan Planning Organization (YMPO) established a general public door-to-door Dial-A-Ride service that serves the areas of Yuma, San Luis, Somerton, and Wellton. Until that time, public transit in the YMPO region was limited. For-profit companies, including taxis and intercity buses, provided most services with some transportation offered by social service agencies.

In May 2000, the YMPO renewed its contract with the Saguaro Foundation for the operation of the Greater Yuma Dial-A-Ride (DAR) service. In addition to DAR, Saguaro provides demand-response transportation to a number of medical and non-profit groups under contract.

The existing Greater Yuma Dial-A-Ride (DAR) operates six days per week, from Monday through Saturday, 6:00 a.m. to 6:00 p.m. Trip reservations are made 24 hours in advance

by calling the Saguaro Foundation's customer service line. The YMPO has purchased five (5) vans, which it has titled to Saguaro for use in providing DAR service. In addition, Saguaro has a number of other vans, which it uses to administer a variety of social service transportation contracts, in addition to DAR.

EXHIBIT 2-4 DIAL-A-RIDE SERVICE AREA



SERVICE EVALUATION OVERVIEW

As a general public demand-response service, the program's customer base consists of the entire population within the service area. The challenge is how to meet the distinct and separate needs of the senior and disabled customers while providing full service demand-response service to the general public.

While all customer types share the desire for quality service at a reasonable price, each group has characteristics that are important to them. Typically, ambulatory customers are concerned with service hours and on-time performance while seniors and the



disabled are typically more concerned with cost and customer service. An analysis of DAR riders indicates that both riders who indicated that they had disabilities and those who indicated they did not rated the following attributes as extremely important:

1. On-time performance,
2. Time to complete trip,
3. Safety onboard bus.

In addition, those passengers who indicated a disability were most concerned with the reservation process and the cost of a bus ride. These attributes were relatively low on the scale for passengers without disabilities.

EXHIBIT 2-5 RANKING OF KEY ATTRIBUTES BY PERSONS WITH DISABILITIES

ATTRIBUTE	INDICATED DISABILITY	NO DISABILITY
ON-TIME PERFORMANCE	1	1
TIME TO COMPLETE TRIP	1	1
SAFETY ONBOARD BUS	1	1
RESERVATION PROCESS	1	3
COST OF BUS RIDE	1	6
CLEANLINESS OF BUS	2	5
TIME SERVICE ENDS IN EVENING	3	4
TIME SERVICE BEGINS IN MORNING	4	2

YMPO's contract with Saguardo Foundation dba Saguardo Transportation Services (STS) for Dial-A-Ride services for the greater Yuma area provides that STS furnish daily on-line management, dispatch and operation of curb-to-curb demand-response services (Dial-A-Ride), as well as, drivers, vehicles, maintenance and facilities for operating this service.

Under the current contract, the operator receives a flat fee of \$5.56 per passenger within the urban service area and a fee of \$4.76 per passenger outside the urban area. Approximately 86 percent of all trips made during FY 00-01 were within the urban service area. The advantage of this type of compensation schedule is that the YMPO only pays for trips provided. While this may have benefited the YMPO during the start-up period when ridership was light, it does not allow YMPO the efficiencies of growing ridership nor does the community benefit from improving the system's productivity.



Fares charged are set by the YMPO. The fares collected are retained by STS but are reported to the YMPO monthly. Seniors and persons with disabilities do not receive preferential service or discounted fares.

Fares are as follows:

- **Yuma/Urban area - one-way** \$2.00
- **Outlying areas - one-way** \$3.00

In addition to the per passenger fee and retained revenues, YMPO provides STS with five (5) vehicles. The organization also paid for 50 percent of STS's new computerized dispatching system.

DAR operates the five YMPO owned vehicles and provides DAR service Monday through Saturday from 5:00 a.m. until 7:00 p.m. The vehicles are also used for providing transportation services on other contracts maintained by STS. Similarly, STS vehicles are used for DAR service

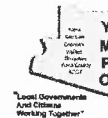
STATISTICAL ANALYSIS

PRODUCTIVITY

Productivity of a transit service is typically gauged by three measures: *service efficiency*, *cost effectiveness*, and *service effectiveness*.

Operating Cost per Vehicle Service Hour (VSH) and per Vehicle Service Mile (VSM) are the ratios generally used to determine service efficiency. Cost effectiveness is measured by Operating Cost per Passenger. Passengers per VSH and VSM determine a system's service effectiveness.

Discussions with the operations contractor revealed that Vehicle Service Hours and Vehicle Service Miles data are not collected on a routine basis. The current contract requires the contractor to report the following information: service mileage, trip origin



and destination, trip purpose, passenger status, passenger count by jurisdiction, trip requests denied, complaints logged, daily vehicle trips, number of passengers served, vehicle hours/miles, on-time performance, accidents, and service days per month. However, the information does not appear to be collected or reported on a regular basis. Data provided by the contractor does not appear to segregate DAR trips or customers.

The average Operating Cost per Passenger is \$7.66 per passenger plus administrative costs. This is considered low for demand-response, which is typically in the \$10.00 to \$15.00 range. However, the inability of the contractor to provide verifiable records renders any findings inconclusive.

In addition to DAR, the contractor provides transportation service under contract with approximately ten other medical and social service organizations. The current DAR contract allows the operator to *share* trips and commingle passengers. This arrangement provides efficiencies for the operator. However, the lack of segregated records creates a number of challenges for the operation and evaluation of YMPO's DAR program.

As a result of client commingling and the lack of performance data, it is not possible to measure the true productivity of the DAR program. The necessary data to calculate Passenger per Vehicle Service Hour and Passenger per Vehicle Service Mile is not available. Because of this lack of data, the analysis relied heavily on non-quantitative measures to evaluate the productivity and effectiveness of the service.

Recommendations relating to record keeping are outlined in the *Recommendations* of this section.

FAREBOX RECOVERY

Farebox recovery, expressed as a percentage, refers to that share of Operating Cost recovered through fares paid by riders. Farebox Recovery provides an indication of the level of public subsidy required for the operation of the service. Because of the fee structure in place with the operator, the farebox recovery rate has fluctuated very little since the inception of the service.

Because the operator is paid on a per passenger basis and the fares are predetermined, the cost to the YMPO for providing service within the urban area is \$7.56 per trip and the cost of providing service outside the urban area is \$7.76 per trip (fare plus STS charge). As a percentage of the total cost (e.g., farebox recovery rate), the fares charged within the Urban service area account for 27 percent of the total costs and 39 percent outside the Urban area. However, due to the lack of segregation of riders between DAR passengers and non-DAR passengers, the authenticity of the farebox recovery ratio is questionable.

RIDERSHIP

Since the inception of the Dial-A-Ride program in February 1999, the daily average has increased from 6.6 trips to 237.7 trips in February 2002.



In January 2002, the YMPO placed a limit of \$34,000 per month for the operation of the DAR service as a cost control measure. In essence, the limitation of operating costs has resulted in an average monthly ridership of 6,200 trips.

FUNCTIONAL ANALYSIS

DISPATCHING

Customers wishing to use the Greater Yuma DAR service are required to schedule their trip no later than 3:00 pm the day before they wish to travel. Same day trip requests are accommodated as space allows and are communicated to the driver via two-way radio.

Customers may also reserve a trip up to two weeks in advance. Passengers traveling to the same location on a regular basis are given the option of establishing a standing reservation. Passengers with standing reservations are only required to call if they need to change a pick-up/drop-off time or if they will not be requiring a scheduled trip. According to the operations contractor, approximately 60 percent of all scheduled trips are standing reservations.

Trip reservations are taken on a first-come first-served basis. While efforts are made to accommodate a requested pick-up time, the contractor encourages customers to schedule trips during off-peak hours (11:00 a.m. to 2:00 p.m.).

According to the operations contractor, formal tracking of trip denials (ADA-eligible or otherwise) is not presently performed. This has made it difficult to evaluate the DAR's compliance with ADA regulations. To complicate matters, the contractor has not developed and implemented an ADA certification process nor does it track customers with disabilities, so it is unclear how many of the current riders are disabled or wheelchair bound.

Currently, all trip requests are logged and scheduled manually by a team of dispatchers. In the spring of 2002 the operator purchased and implemented a computerized dispatching system. The advantages of having this type of system is that it will assist in collecting and analyzing performance data. Regular reporting and monitoring of performance measures will assist the YMPO in achieving a more efficient and effective operation.

Any change to an assigned pick-up time or reservation cancellation is communicated to the vehicle driver by two-way radio. Because YMPO allows standing reservations, dispatchers are able to group trips with similar origin and destination pairs, improving productivity. The only things at this time that YMPO is not recording on the dispatch sheets are telephone numbers and whether the passenger is ADA certified.

ADA CERTIFICATION

The major intent of the Americans with Disabilities Act (ADA) is to ensure that all persons regardless of disability have equal access to public services and facilities. The



ADA, passed in 1991, assigned the responsibility of enforcing transportation-related ADA regulations to the Federal Department of Transportation (DOT). By regulation, public transit operators are required to design and implement an objective ADA certification process. The certification process ensures equal access to services for persons with disabilities without placing an undue burden on a community.

At the time of the evaluation, Greater Yuma DAR did not have an ADA certification process in place. Recommendations for such a policy are outlined later in this report.

DEMAND-RESPONSE RECOMMENDATIONS

AMERICANS WITH DISABILITIES ACT (ADA)

The Americans with Disabilities Act (ADA) was signed into law on July 26, 1990. This law is a civil rights act that is designed to ensure equal access to employment, public accommodations, telecommunications and transportation. With the advent of the ADA, persons with disabilities are to be provided equal access to public transportation services. This pertains to the accessibility and availability of transportation services.

The ADA recognizes that some users of public transit will be unable to use mainline services all the time even with full accessibility, due to the nature of their disability. To ensure equal access for these riders under these circumstances, a complementary paratransit service is required.

Paratransit services are designed to operate the same days and hours as the mainline service available in the area, which helps insure equal access. It is important to note that ADA paratransit services are required only to be complementary or comparable to mainline and only operate within three-quarters of a mile of mainline services.

The ADA defines disability in the following manner:

- With respect to an individual, a physical or mental impairment that substantially limits one or more of the major life activities of such individual; a record of such an impairment; or being regarded as having such impairment.
- The phrase *major life activities* means functions such as care for one's self, performing manual tasks, walking, seeing, hearing, speaking, breathing, learning, and working.

The ADA defines physical or mental impairment as—

1. *Any physiological disorder or condition, cosmetic disfigurement, or anatomical loss affecting one or more of the following body systems, neurological, musculo-skeletal, special sense organs, cardiovascular, reproductive, digestive, genourinary, hemic and lymphatic, skin, and endocrine;*



2. *Any mental or psychological disorder, such as mental retardation, organic brain syndrome, emotional or mental illness, and specific learning disabilities.*
3. *The term physical or mental impairment includes, but is not limited to, such contagious or non-contagious diseases and conditions as orthopedic, visual, speech, and hearing impairments; cerebral palsy, epilepsy, muscular dystrophy, multiple sclerosis, cancer, heart disease, diabetes, mental retardation, emotional illness, specific learning disabilities, HIV disease, tuberculosis, drug addiction and alcoholism;*

Under the ADA regulations, there are three categories of persons who are eligible for ADA paratransit service:

1. *Any individual with a disability who is unable, as the result of a physical or mental impairment (including a vision impairment), and without the assistance of another individual (except the operator of a wheelchair lift or other boarding assistance device) to board, ride, or disembark from any vehicle on the system which is readily accessible to and usable by individuals with disabilities.*
2. *Any individual with a disability who needs the assistance of a wheelchair lift or boarding assistance device is able, with such assistance, to board, ride, and disembark from any vehicle which is readily accessible to and usable by individuals with disabilities, if the individual wants to travel on a route on the system during the hours of operation of the system, at a time when such a vehicle is not being used, to provide designated public transportation on the route.*
3. *Any individual with a disability who has a specific impairment-related condition which prevents the individual from traveling to a boarding location or from a disembarking location on the regular system.*

Prior to developing the agency's certification procedures, the YMPO would need to establish eligibility guidelines for the service. While federal regulations provide the framework, they do provide some flexibility to the agency in order to meet the individual needs of their customers and the unique environment in which it operates. An eligibility determination process must be established even if the public entity operates a paratransit system with broader eligibility requirements than the ADA.

While ADA-eligible persons may be covered by the broader system, specific documentation certifying ADA eligibility must be provided to these individuals. ADA regulations require all public entities that operate complementary paratransit services to establish a process for certifying individuals both local residents and long-term visitors as ADA paratransit eligible. This certification may be used in other areas to access ADA services.

Based on the type of service provided by Greater Yuma Dial-A-Ride it is recommended that the YMPO adopt a certification process consisting of the following steps:

1. *Applicants request an application form for ADA paratransit services;*

2. *Applications are submitted to local transit operator or paratransit service provider (Receipt of application is acknowledged in writing by some operators.);*
3. *Applications are initially reviewed for completeness of information;*
4. *For incomplete applications, applicants are notified (by mail and/or phone) and additional information is requested;*
5. *Complete applications are further analyzed to determine ADA eligibility;*
6. *Professional verification is requested as needed;*
7. *Applicants are to be notified of eligibility determination within 21 days of receipt of a COMPLETE application;*
8. *Applicants denied ADA paratransit service receive a letter with information about the appeal process (A decision on the appeal must be completed within 30 days of the hearing or presumptive eligibility is granted.);*
9. *ADA eligible applicants are notified of category and conditions;*
10. *Applicants denied ADA paratransit service can make an appeal request within 60 days of date of denial;*
11. *Applicants are granted this presumptive eligibility when ADA determinations take over 21 days from receipt of completed application, which is valid until such time as an actual ADA eligibility determination is rendered by the transit agency.*

The ADA process contains five elements:

Application

The application should request the following pieces of information from the customer seeking certification:

- **Applicant's full name,**
- **Full home address and a mailing address if different from home address,**
- **Phone information (day, evening and/or TDD/TTY),**
- **Date of birth (including year),**
- **Gender,**
- **Primary language,**
- **Information regarding need for an accessible format (for the regional application and future information),**
- **Name, relationship, and phone number of person, if any, who assisted in completing an application,**
- **Emergency contact person, if any, including phone numbers and relationship to applicant,**



- **Type/nature of their disability.**
 - a. *Is the disability temporary?*
 - b. *Do they require the use of a mobility device (i.e., wheelchair, walker, cane, etc)?*
 - c. *Would they be traveling with an attendant or service animal?*
 - d. *Authorization to release medial information or the signature of the physician treating their disability attesting to their ability to use public transportation.*

The completed application should be returned by mail to the YMPO or its agent for review.

Application Review

Review of the submitted applications should be done by the YMPO staff or agent who is familiar with ADA regulations and has a working knowledge of disabilities and their impact on a person's ability to use public transportation. Using the information provided on the application and any follow-up inquires with medical professionals deemed necessary, the responsible party would make a determination on ADA eligibility.

Approval/Denial Process

Because of the size of the DAR service, it is recommended that two types of certifications be made, unconditional and in the case of temporary disabilities, unconditional for a specified period of time. In the later, the length of certification would be based on the type and anticipated length of the disability.

According to ADA regulations, the YMPO or its agent would have 21 days to make a determination. If notification is not given to the applicant with that 21-day period, the presumptive eligibility is granted.

By limiting the classifications to two, it would simplify the process for the applicant and reduce the administrative burden for YMPO staff or its agent.

Appeals Process

For applicants that are denied certification, an appeals process must be in place. According to ADA regulations, "the appeal process must be available not only to individuals who are determined ineligible in all situations, but to persons who are deemed conditionally eligible". Any appeal process established by the YMPO or its agent must comply with the following requirements:

- Individuals must be permitted to request an appeal within 60 days of the initial eligibility decision;

- Individuals must have an opportunity to be heard in person and to present additional information and arguments regarding their disability and ability to use the fixed route service;
- There must be a *separation of function* between those involved in the initial eligibility determination and those selected to hear appeals;
- Applicants must be notified of appeal decisions in writing, or in accessible format if requested, and the notification must state the reasons for the decision if eligibility is still denied;
- If a decision on the appeal is not made within 30 days of the completion of the process, individuals must be considered "*presumptively eligible*" and must be provided paratransit service until and unless a decision to deny the appeal is issued. Paratransit service does not have to be provided, however, during other phases of the appeal.

Recertification

Transit providers can require that individuals periodically reapply for ADA paratransit eligibility. While a person's disability may be permanent, other factors which go into the determination of eligibility may change. For example, barriers that previously limited a person's access to transit may have been corrected or procedures could be introduced that would allow greater use of the fixed-route service by individuals with disabilities.

While the ADA regulations do not specify the period for which individuals should be certified, it is our recommendation that recertification be required every three years. The advantages of requiring recertification are

1. Encourages a mode shift for the fixed-route service;
2. Allows the YMPO to update its records on a regular basis;
3. Initiates a review the certification process to determine if modifications are needed.

"NO SHOW" AND CANCELLATIONS POLICY

In conjunction with the formation of the ADA certification process, the YMPO should review its no show and cancellation policies. While not enforced, the current policies as outlined in the operations contract are excessive and do not comply with ADA regulations.

ADA regulations require that suspension of service be communicated in writing or other "*usable format*" such as audio or Braille. Regulations also require that the customer have an opportunity to appeal the suspension of service. The current policy does not include either of these elements.



RECORD KEEPING

The American with Disabilities Act (ADA) requires an agency to maintain "adequate" records for a period of three years.

According to ADA regulations, transit providers should maintain adequate records of certification requests, reviews completed, notification provided to customers/applicants and any records that show regulatory requirements were met. Decisions made throughout the review process (e.g., the completeness of the application, the need for more information, reasons for determinations, requests for appeals, etc.) should also be recorded.

Additionally, it is recommended that the operations contractor be required to collect and report to the YMPO the following operational data on a regular basis.

1. Ridership by service area,
2. Revenue by service area,
3. Vehicle Revenue Hours,
4. Vehicle Revenue Miles,
5. Trip denials,
6. Trip cancellations,
7. Response time,
8. Complaints received,
9. On-time performance,
10. Road Calls/Breakdowns,
11. Maintenance Reports,
12. Accident Reports,
13. Non-Dial-A-Ride ridership.

Given the fact that the demand response operations contractor recently purchased and implemented a new computerized dispatching system, this information should be readily available and easy to disseminate.

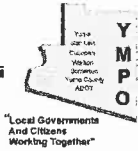
The requested data could be used to monitor efficiency, improve customer service, and increase the effectiveness of the service.

VEHICLE USAGE

Under the current service agreement, the contractor is permitted to combine passengers from its other programs to provide more efficient service. As a result of this current arrangement, the distinction between the various services is blurred both in the documentation maintained by the contractor and in the minds of the public using the service.

Commingling Dial-A-Ride trips with trips for the contractor's other clients presents a number of contract compliance concerns. The YMPO will need to ensure the contractor's other operations do not impact the normal and efficient operation of the Dial-A-Ride program.

In **NO** situation, should a DAR passenger be charged a fare that is higher than the published rate.



CONVERT TO SENIOR/DISABLED SERVICE

One of the major challenges faced by the YMPO is funding. In an effort to increase the total level of transit service provided, we recommend that use of DAR be restricted to seniors, persons with disabilities, and residents within the DAR coverage area who do not have ready access to the fixed-route service.

This modification would allow the YMPO to reallocate resources currently being used for the operation of the DAR service to the proposed circulator shuttle.

Because of the type of equipment used and the characteristics of a fixed-route service, a circulator shuttle could transport a greater number of customers at a lower cost to the YMPO.

Analysis of the DAR customer survey data and data provided by the operations contractor indicates that approximately 60 percent of all DAR customers do not consider themselves disabled and 64 percent of all customers are under the age of 55. This indicates that more than half of all DAR customers could make the transition to a fixed-route service if the fixed-route service traveled to where they needed to go.

Given the current ridership and customer demographics, it is estimated that by restricting coverage to seniors, persons with disabilities, and limited "life-line" service to non-served areas, 2.75 vehicles would be required weekdays and two vehicles on Saturdays.

DOOR-TO-DOOR VS. CURB-TO-CURB

Although YMPO's contract stipulates curb-to-curb service, STS operates Dial-A-Ride as a door-to-door service. As such, customers may request driver assistance to get from their front door to their seat on-board the vehicle. The advantage of this type of service is that it provides a high level of personalized service.

More common within the industry is a curb-to-curb demand-response program. With this type of service, the driver can assist a passenger aboard if they require the use of a lift or need to secure a mobility device such as a wheelchair or walker.

While not as personalized, this type of service does have the following advantages:

- **Improved efficiency (compared to door-to-door),**
- **Reduced liability,**
- **Lower per passenger costs (compared to door-to-door).**

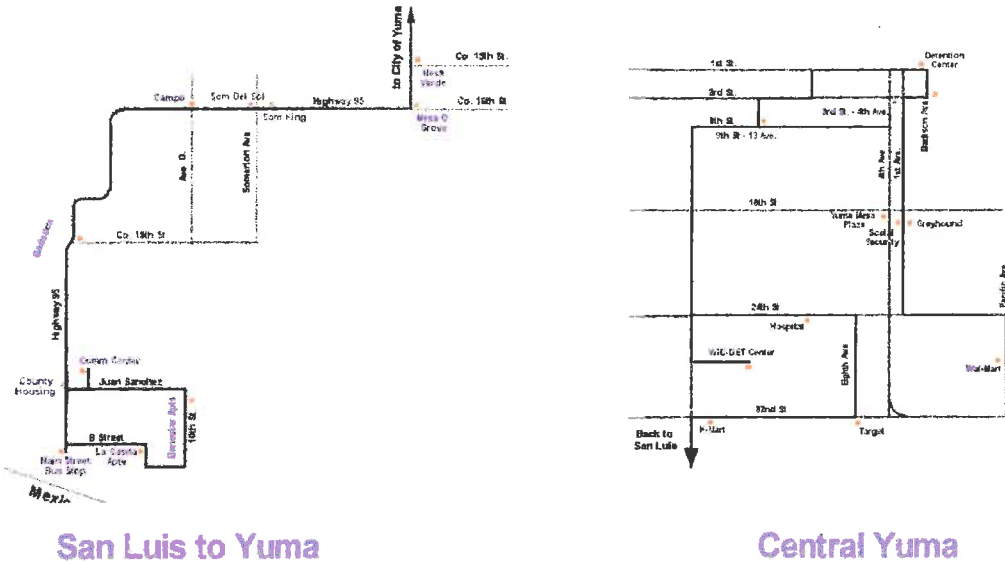
It is recommended that the YMPO consider restructuring the service to operate as a curb-to-curb program.

FIXED ROUTE

Based on demand-response customer survey data, origin and destination data, and public comment, the YMO Short Range Transit Plan, 2001-2005, recommended the launch of a Yuma-San Luis fixed-route to serve as the major transit connection between Yuma and the border community of San Luis. As a result, a fixed-route service linking San Luis and Yuma was established in September 2000 as a trial. The service is operated by a private contractor, San Luis-Yuma Transit Company, aka Valley Transit.

The operator provides all vehicles and personnel and performs all maintenance and operation functions, including marketing and customer service. At the time of the analysis, the operator was reimbursed at a rate of \$22.86 per one-way trip or 61 cents per Vehicle Service Mile (VSM) or \$13.06 per Vehicle Service Hour (VSH). In addition, the operator keeps all fare revenue.

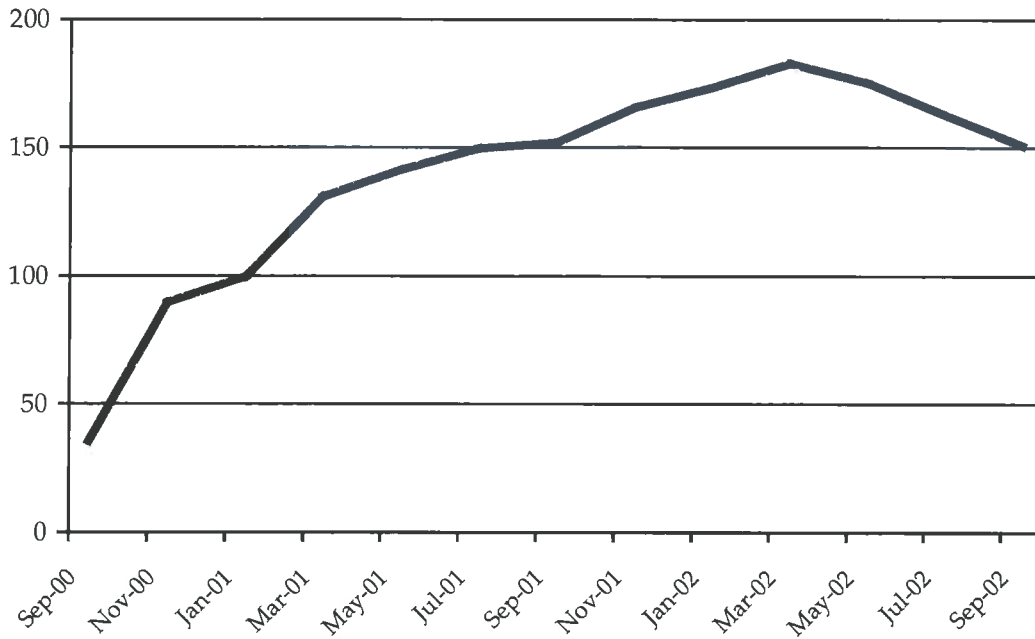
EXHIBIT 2-6 VALLEY TRANSIT SAN LUIS-YUMA ROUTE



The route is approximately 37 miles, one way and operated on a two-hour headway. The service operated from 7:00 a.m. to 7:00 p.m., six days a week and, at the operator's option, operates a limited schedule on Sundays. The route had 18-scheduled stops serving the communities of San Luis, Gadsden, East Cocopah Reservation, and Somerton. The route also traveled through the central Yuma city area west-east between Avenue B and Pacific Avenue and south-north between 32nd Street and 1st Street.

Ridership has increased steadily from 35 passengers per day in September 2000 to 152 in September 2001. Ridership peaked in February 2002 at 189 passengers per day. After rapid growth during the first 18 months of operation, ridership appears to have leveled. In September 2002, ridership was at 151.

EXHIBIT 2-7 VALLEY TRANSIT SAN LUIS-YUMA RIDERSHIP TREND



A second fixed-route alignment (central Yuma to the Foothills) began operation in October 2001. The Yuma-Foothills Route operated Monday through Saturday, 6:00 a.m. to 6:30 p.m. The fare is \$1.00 each way. In October 2001, ridership was 14 passengers per day. By September 2002, the passenger count was 37. Ridership appeared to be continuing growth.

EXHIBIT 2-8 VALLEY TRANSIT FOOTHILLS-YUMA ROUTE

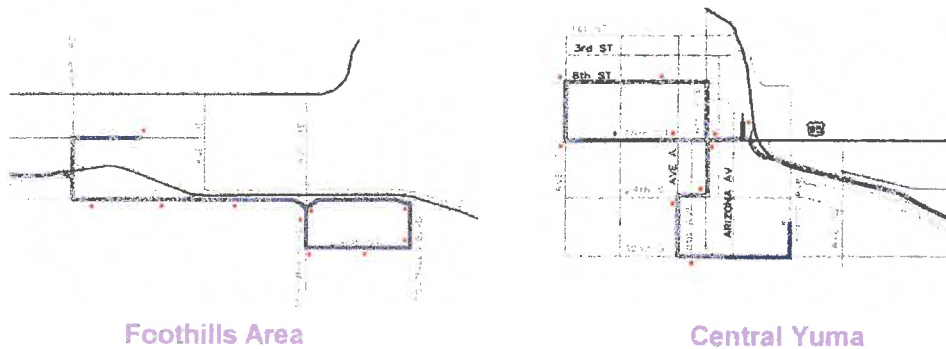
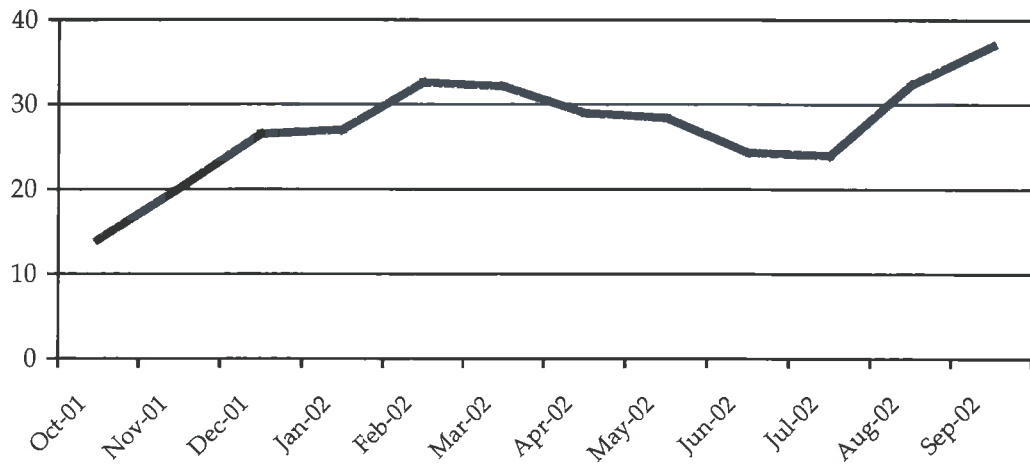
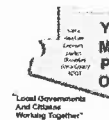




EXHIBIT 2-9 VALLEY TRANSIT FOOTHILLS-YUMA RIDERSHIP TREND





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PUBLIC INVOLVEMENT

The purpose of a public involvement plan was to ensure proactive public participation and consensus development in all phases of the process. The process requires developing complete information and providing opportunities for comment to promote early and continuing involvement.

The public involvement process focused on stakeholders most likely to be impacted by the implementation of a transit system, as well as those who could influence the implementation process. Data was collected from the following sources: on-board customer surveys, telephone surveys, intercept surveys, stakeholder interviews, and public meetings.

Surveys were conducted in both English and Spanish. All survey instruments were pre-tested. Data will be coded, validated, and analyzed using SPSS software.

- **On-board survey:** On-board surveys for both the fixed-route and demand-response services was conducted using stratified random sampling.
- **Community telephone survey:** A statistically valid, random sampling of households throughout Yuma County was conducted to obtain a thorough understanding of the travel patterns and transit needs of the various communities.
- **Intercept survey:** Intercept surveys were conducted at key traffic generators to determine geographic and chronographic travel patterns and perceptions of public transit.
- **Public Outreach Plan:** A public outreach plan was developed to provide the public with current information on the transit development process.
- **Stakeholder interviews:** Interviews with key stakeholders, as identified by YMPO's Project Manager and TAC, were conducted. Interviewees included local policy makers, business leaders, military representatives, employers, and representatives of community organizations and social service agencies. These interviews provided input about the current and potential role of transit in the community.
- **Community meetings:** Public comment was solicited from a public meeting.



GENERAL PUBLIC SURVEY ANALYSIS

A survey regarding transportation issues was conducted throughout Yuma County during March 2002. Survey methodology included both random-number telephone surveys and intercept surveys at key traffic generators in the Yuma area. Respondents from the Cities of San Luis, Somerton, and Yuma, non-incorporated areas of the County including the Foothills, and the Marine Corps Air Station were interviewed also. A total of 570 survey responses were tabulated.

Approximately one-third of the survey sample reside in Yuma for less than 12 months per year. The demographic profile of the respondents were representative of Yuma's population, with survey respondents more likely to be in the lower income quadrant and slightly more likely to be female. Since transit riders are more likely to be in the lower income quadrant and female, the data was not weighted.

The general public surveys of the Yuma area were conducted to achieve the following purposes:

1. Determine perceptions of public transit in the Yuma area.

Ninety-four percent indicated that it is important for local government to provide public transportation primarily to provide transportation for people who have do not drive or have access to an automobile.

Almost three-quarters of the respondents had ridden public transportation. While most had taken public transportation because they did not drive or did not have a car available, economy and convenience were also cited as reasons. In general, respondents had a positive impression of public transit service in most important categories, including safety, cleanliness and comfort, and stops located close to destination. On-time performance, trip duration, and stops close to home were the most negatively rated attributes.

2. Determine resident travel patterns.

The most frequently mentioned destinations were located along the 32nd Street corridor between Avenue B and Pacific. Home locations roughly mirror population density patterns. The 4th Avenue corridor and Avenue B corridor had the greatest frequency of north-south arterials. Frequency along the east-west corridors was relatively equal.

3. Determine information outlets.

Although radio was the most universal information medium, using radio to inform residents regarding transportation issues may be difficult because of the many outlets within the Yuma market. However, use of public service announcements on all radio stations would have the greatest reach into the lower income segments. Approximately half the respondents do have cable television. Just over a third of the respondents subscribe to the *Yuma Daily*

Sun. The percentage is much lower for Spanish-speaking and lower income persons. The Internet is used frequently by only a quarter of the respondents.

METHODOLOGY

To ensure a wide cross-section of the population was surveyed, our methodology employed a two-prong approach: random-number telephone surveys and intercept surveys at key destinations within the City of Yuma and outlying areas. The same basic survey instrument was used for both survey methods. The instruments were pre-tested in Yuma on March 6 and revised to ensure validity. Completed surveys totaled 570 (469 intercept surveys and 101 telephone surveys).

TELEPHONE SURVEY

A random sampling of residential telephone numbers within the City of Yuma were contacted between March 11 and March 17, 2002. Telephone numbers were generated by a random number protocol. Calls were made on all days of the week (including Saturday and Sunday), and during all day parts between 10:00 a.m. and 8:00 p.m. A total of 101 calls were completed.

INTERCEPT SURVEY

Key destinations in the Yuma area were selected based on the following criteria:

1. Traffic generating characteristics: reach and numbers;
2. Demographic diversity;
3. Geographic distribution;
4. Cooperation of the location's management.

Surveyors were stationed near the entry of the location and approached customers as they entered or left the location. A total of 469 surveys were collected through this methodology. The survey could be self-administered or the surveyor could interview the respondent. Most surveyors indicated the interview method was more effective. At the more active locations, two or more surveyors were stationed. Most locations were surveyed only once during the period; however, at several sites surveys were conducted a second day. Surveys were taken between 7:00 a.m. and 7:00 p.m. (times varied to coincide with peak activity periods at the various locations). Locations and times are listed in Exhibit 3-1.





EXHIBIT 3-1 INTERCEPT SURVEY LOCATIONS

LOCATION	ADDRESS	HOURS
Border Crossing	San Luis	7:00 a.m. to 3:00 p.m.
Catalina Square Apartments ⁽¹⁾	3000 S. Catalina Avenue	9:00 a.m. to 10:00 p.m.
Del Sol Market	415 S. Main, Somerton	8:00 a.m. to 7:00 p.m.
Del Sol Market	280 S. 4 th Avenue, Yuma	8:00 a.m. to 6:30 p.m.
Farmers' Market	Downtown Yuma	9:00 a.m. to 5:00 p.m.
Food City	16 th Street & B Avenue	8:00 a.m. to 11:30 p.m.
MCAS	Marine Corps Air Station	Noon to 2:30 p.m.
Southgate Shopping Center	3200 S. 4 th Avenue, Yuma	2:00 p.m. to 6:30 p.m.
Swap Meet	A Avenue and 40 th Street	8:00 a.m. to 3:00 p.m. (Sat. & Sun.)
Target	725 W. 32 nd Street, Yuma	10:00 a.m. to 1:30 p.m.
Walgreen	3121 S. 4 th Avenue, Yuma	10:00 a.m. to 6:00 p.m.
Walgreen	1150 W. 8 th Street, Yuma	10:00 a.m. to 6:30 p.m.
Wal-Mart	2900 S. Pacific, Yuma	8:00 a.m. to 6:30 p.m.

⁽¹⁾ Apartment management invited residents to a special meeting.

ANALYSIS

The demographics of the telephone survey respondents were considerably different from the demographics of the intercept survey respondents. Telephone respondents were more likely to be female, older, and have higher incomes. Exhibit 2 compares the demographics between the two surveys with general demographics for Yuma County (Census 2000) and with demographics from the onboard surveys of Dial-A-Ride and Valley Transit.

EXHIBIT 3-2 DEMOGRAPHIC COMPARISON

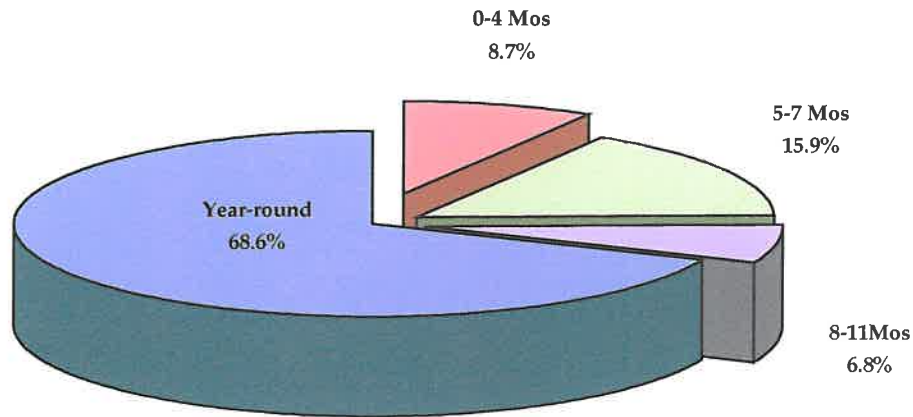
CHARACTERISTIC	YUMA COUNTY	INTERCEPT SURVEY	TELEPHONE SURVEY	TOTAL GENERAL PUBLIC SURVEYS	FIXED-ROUTE ONBOARD SURVEY	DEMAND-RESPONSE ONBOARD SURVEY
Gender (% Female)	49.5 %	54.0%	61.4%	54.8%	61.8%	72.4%
Age	33.9	43.2	52.9	44.9	42.1	44.7
Income Level	\$32,182	\$20,360	\$36,980	\$23,352	\$11,113	\$14,911
Hispanic ⁽²⁾	50.5%	53.9%	5.9%	45.3%	77.4%	3.4%
Average Household size	2.86	3.31	2.40	3.15	N/A	N/A
Residency (% year round)	N/A	74.8%	47.4%	68.6%	N/A	N/A

⁽²⁾ Ethnicity was not requested by surveys. Spanish language preference was used to determine this category. Census data was based on respondent's answer to a specific question requesting ethnic background.



The demographics achieved by combining the two surveys closely mirror the general population statistics. Survey respondents were slightly older and in lower income levels due to the greater probability of intercepting retired persons during daytime interview periods and the March timeframe, when a high percentage of retired, seasonal inhabitants reside in the area. Sixty-nine percent of the respondents (75 percent of intercept respondents and 47 percent of telephone respondents) indicated they were year-round residents. See Exhibit 3-3.

EXHIBIT 3-3 SEASONAL RESIDENTS



All telephone respondents and over 90 percent of the intercept respondents indicated they had access to one or more automobiles. Overall, 8.2 percent had neither an automobile nor a licensed driver in their household, and therefore may be classified as transit dependent (see Exhibit 3-4).

EXHIBIT 3-4 TRANSIT DEPENDENCY

NUMBER OF AUTOMOBILES IN HOUSEHOLD	NUMBER OF LICENSED DRIVERS			TOTAL
	0	1	2 OR MORE	
0	5.9%	1.3%	0.5%	7.7%
1	0.4%	32.4%	17.0%	49.7%
2 OR MORE	0.2%	7.0%	35.4%	42.6%
TOTAL	6.4%	40.6%	53.0%	

PERCEPTIONS OF PUBLIC TRANSPORTATION

Approximately 76 percent of the intercept survey respondents and 65 percent of the telephone survey respondents stated they were aware of Valley Transit and/or Dial-A-Ride. Seventy-two percent of the telephone respondents and 56 percent of the intercept

respondents have ridden public city buses in other cities. Exhibit 3-5 summarizes the most common (i.e., more than five percent).

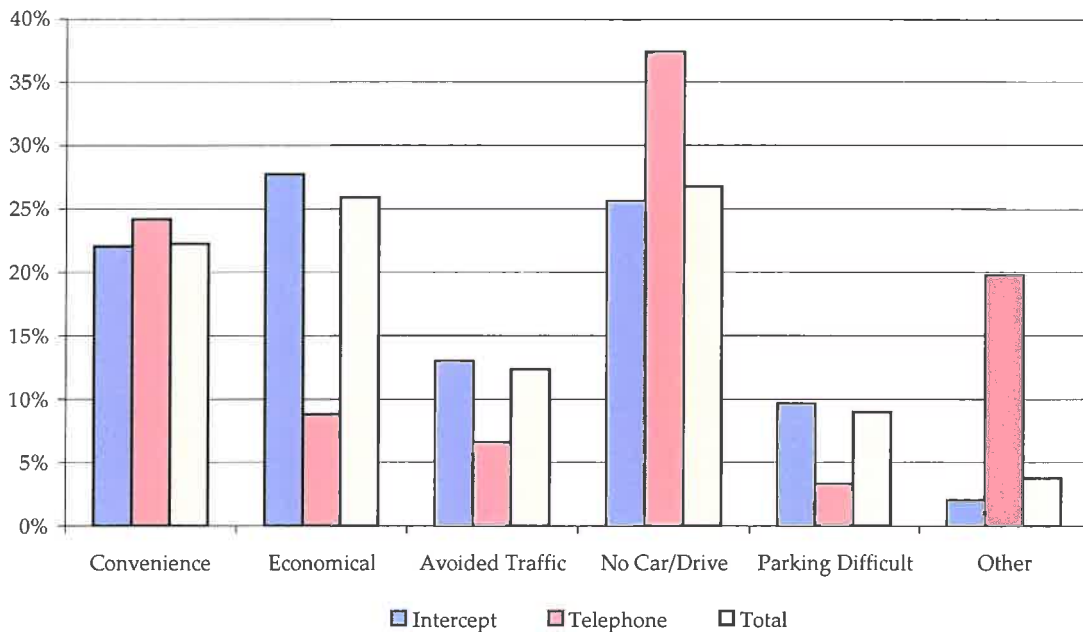
EXHIBIT 3-5 PUBLIC TRANSIT CITIES

	PERCENTAGE
Los Angeles	12.7%
Phoenix	12.3%
Salinas	5.3%
San Diego	5.3%
San Luis	5.3%
Tucson	5.0%

The three primary reasons cited for using public transportation, as noted in Exhibit 3-6, were—

- Respondent did not drive and/or have a car available;
- It was the most convenient way to get to where the respondent wanted to go;
- It was more economical for the respondent to ride public transit.

EXHIBIT 3-6 REASON FOR USING PUBLIC TRANSIT



Respondents rated their experience riding public transportation positively in nine key categories. The highest rated category was *provides frequent service*; the lowest rated category was *trip duration*. Exhibit 3-7 summarizes the rating scores with 4 being best and 1 being poorest.



EXHIBIT 3-7 PERCEPTIONS OF PUBLIC TRANSIT

RATING	TELEPHONE	INTERCEPT	AVERAGE
Provides frequent service	3.48	3.67	3.63
Is safe	3.49	3.65	3.62
Stops located close to final destination	3.48	3.65	3.61
Doesn't require multiple transfers	3.38	3.64	3.59
Clean & comfortable	3.37	3.64	3.58
Priced affordably	3.68	3.55	3.58
Stops located close to home	3.40	3.57	3.54
Operates on time	3.44	3.51	3.49
Trip duration	3.28	3.53	3.48

The most important characteristic for respondents was *safety*. The least important was *trip duration* (See Exhibit 3-8).

EXHIBIT 3-8 IMPORTANCE OF PUBLIC TRANSIT ATTRIBUTES

	TELEPHONE	INTERCEPT	AVERAGE
Is safe	3.80	3.76	3.76
Clean & comfortable	3.67	3.76	3.74
Stops located close to final destination	3.70	3.74	3.73
Operates on time	3.63	3.76	3.73
Priced affordably	3.58	3.74	3.71
Provides frequent service	3.68	3.71	3.71
Stops located close to home	3.65	3.70	3.69
Doesn't require multiple transfers	3.44	3.70	3.65
Trip duration	3.49	3.62	3.59

Incorporation of the top five attributes—**safety, cleanliness and comfort, stops close to the final destination, schedule adherence, and reasonable cost**—will be critical to the success of Yuma developing a transit system.

Plotting the *service rating* responses against the *importance* (Quadrant Analysis Exhibit 3-10) indicates the strengths that should be emphasized in Yuma's public transit system are (1) **safety**, (2) **frequent service**, and (3) **locating stops close to final destinations**. The major weaknesses, which a developing system will need to overcome: (1) **locating stops close to home** and (2) **on-time performance**. Although there was a low expectation regarding trip completion time, the attribute did not rate as highly in importance.

Ninety-four percent of all respondents who answered indicated that it is important for local government to provide public transportation. Providing transportation for people



who have no other transportation choices and for seniors and persons with disabilities were the primary reasons cited by the respondents.

EXHIBIT 3-9 WHY PROVIDE PUBLIC TRANSPORTATION

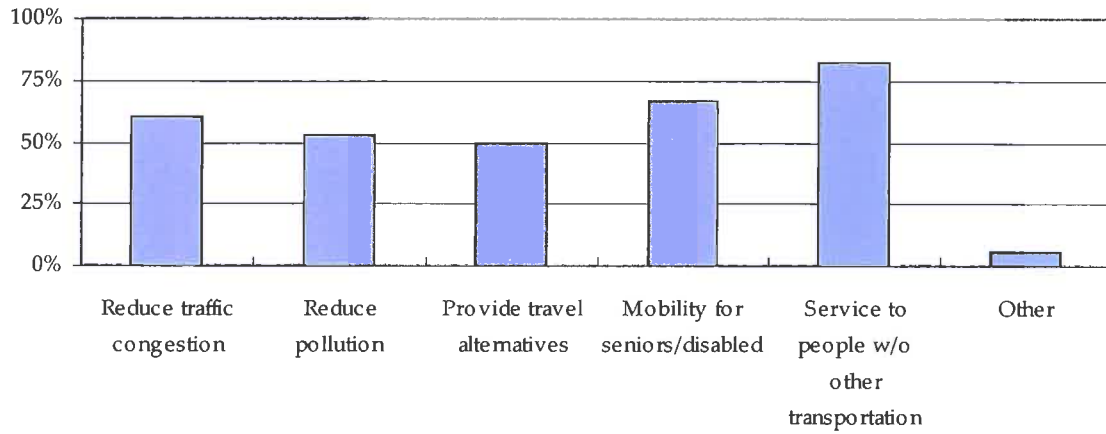
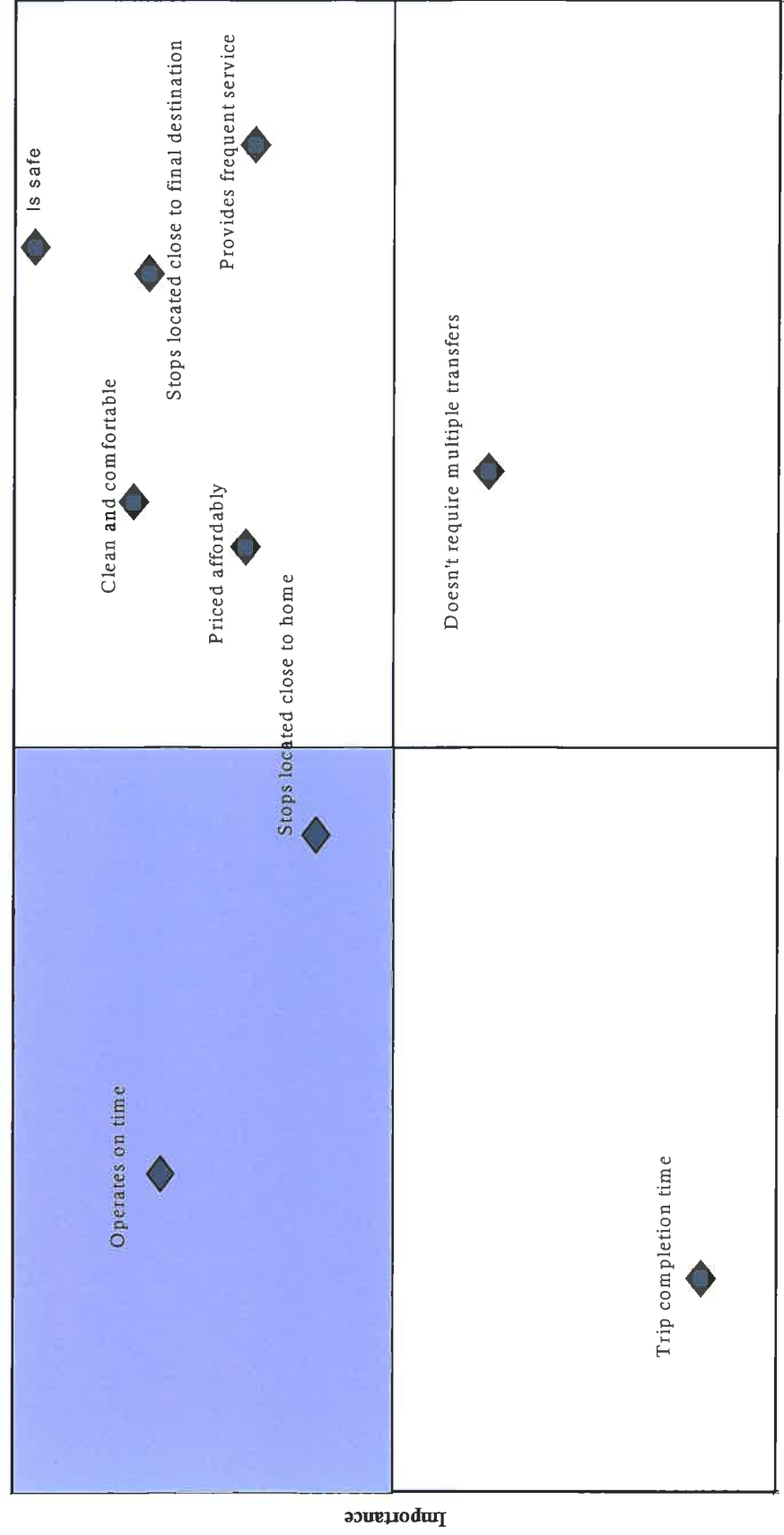




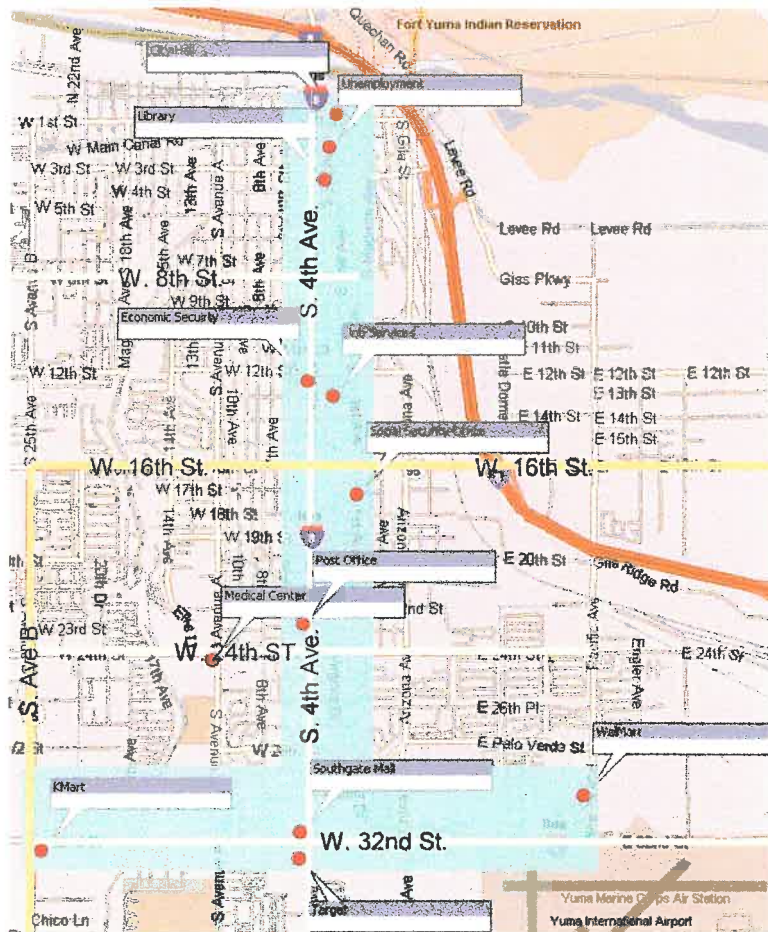
EXHIBIT 3-10 GENERAL PUBLIC ATTRIBUTE QUADRANT ANALYSIS



TRAVEL PATTERNS

Most popular destinations appear to be clustered in the southern part of Yuma, bordered by 32nd Street on the South, 24th Street on the north, Avenue B on the west, and Pacific Avenue on the east. The three most popular destinations were Wal-Mart, K-Mart, and Southgate Mall, which are clustered near 32nd Street from Pacific (Wal-Mart) to Avenue B (Kmart). Southgate Mall is midway between the two at 4th Avenue. Other major destination points are located along 4th Avenue.

EXHIBIT 3-11 CENTRAL YUMA DESTINATIONS



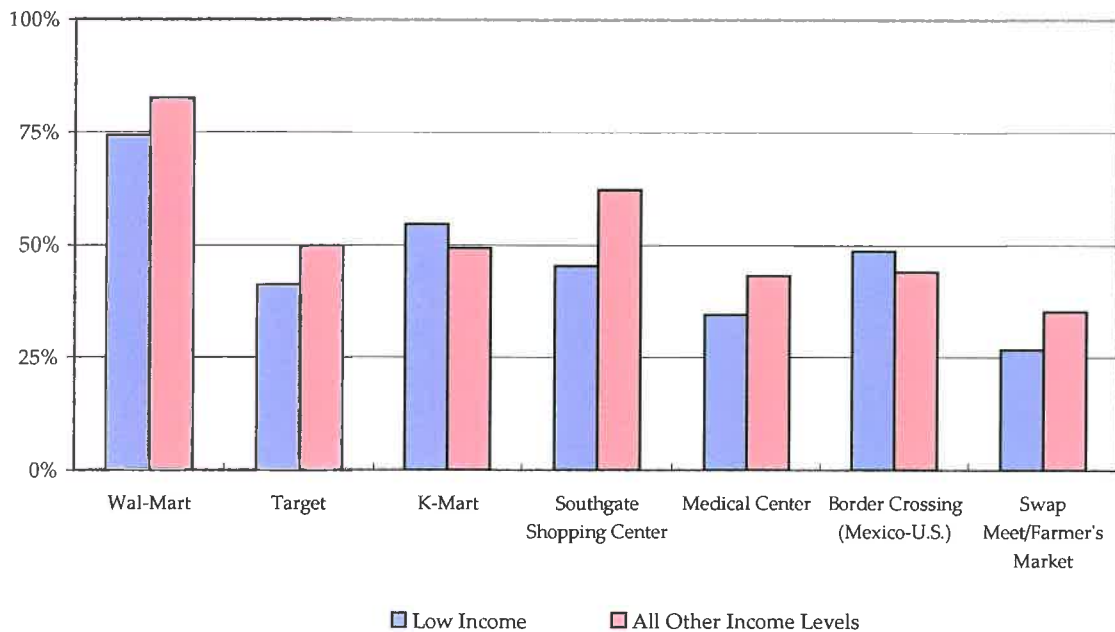
A review of frequently visited locations by income levels indicates that lower income persons (below \$20,000) are less likely to visit most locations than higher income levels. The two exceptions are K-Mart and the border crossing, as illustrated in Exhibit 3-12.



EXHIBIT 3-12 DESTINATIONS BY HOUSEHOLD INCOME

Includes both telephone and intercept survey results.

	< \$20K	\$20-40K	\$40-60K	> \$60K	TOTAL
WAL-MART	74.3%	80.2%	86.2%	93.8%	78.1%
TARGET	41.2%	49.7%	46.6%	62.5%	45.1%
K-MART	54.6%	46.7%	60.3%	37.5%	52.2%
SOUTHGATE SHOPPING CENTER	45.4%	62.3%	60.3%	68.8%	53.1%
MEDICAL CENTER	34.5%	46.1%	43.1%	12.5%	38.5%
BORDER CROSSING (MEXICO-U.S.)	48.6%	48.5%	41.4%	6.3%	46.5%
SWAP MEET/FARMER'S MARKET	26.8%	36.5%	34.5%	25.0%	30.7%



The higher percentage traveling through the Border Crossing may be related to the higher percentage of Hispanics in this income level. As Exhibit 3-13 illustrates, lower income respondents were almost twice as likely to be Spanish-speaking.

Youths (under 18 years of age) and seniors (over 60 years of age) have the greatest propensity to patronage public transit. Exhibit 3-14 analyzes frequent destinations based on age. The percentage of respondents in each age category is plotted for each frequently named destination. The Southgate Mall and Swap Meet are popular destinations for both seniors and youths. Both segments also have a slightly higher propensity to frequently visit the medical center.

EXHIBIT 3-13 LANGUAGE TO INCOME COMPARISON

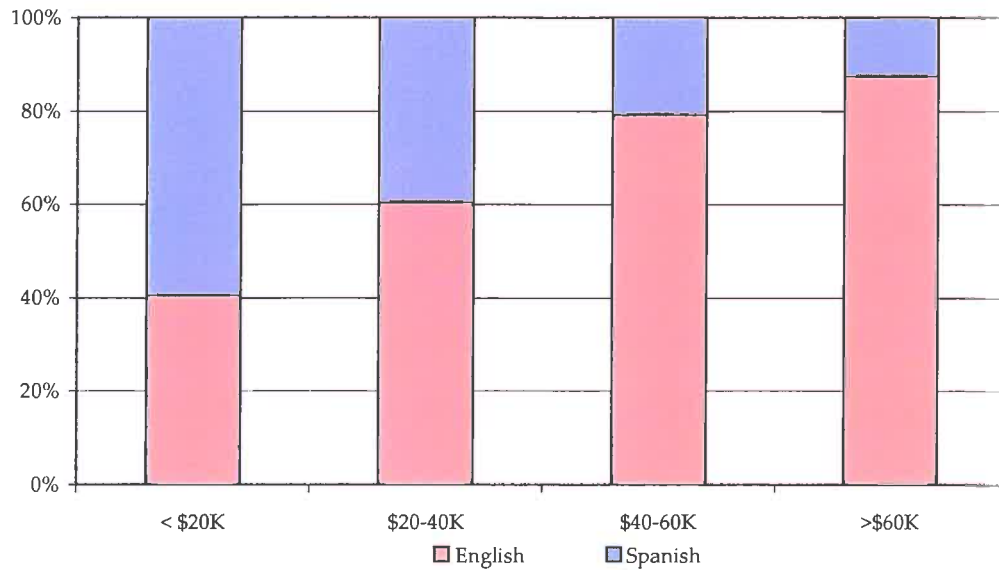
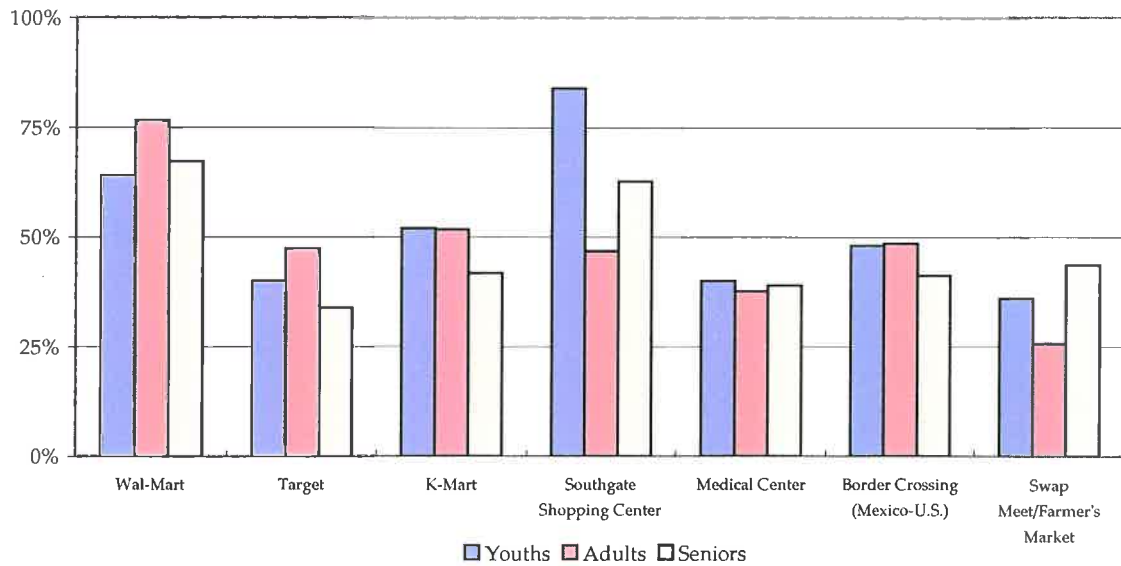
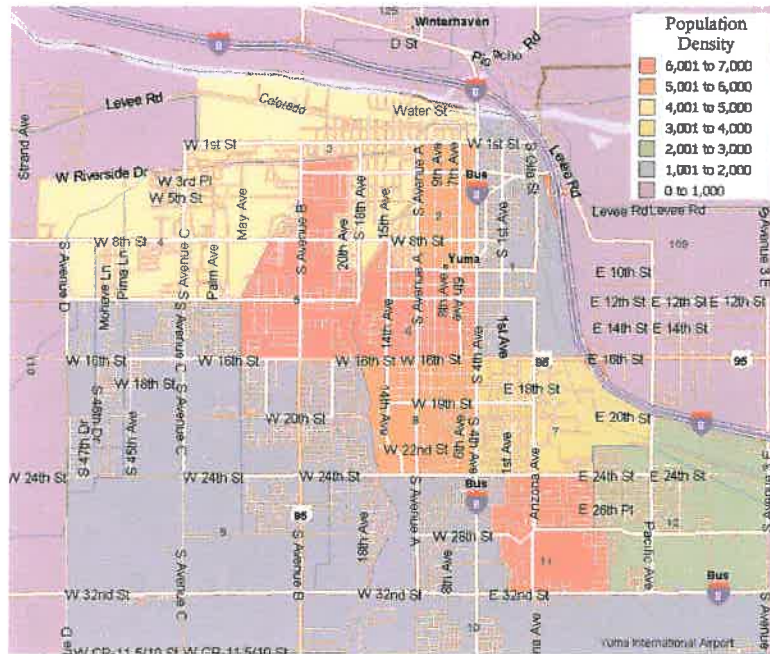


EXHIBIT 3-14 DESTINATION BY AGE GROUP



A review of the closest cross-streets to home shows the distribution closely mirrors the population density in the Yuma area (Exhibit 3-15).

EXHIBIT 3-15 CENTRAL YUMA POPULATION DENSITY



To determine the closest major cross streets to the respondent’s home addresses, seven north-south streets were selected (Avenue C, Avenue B, Avenue A, 8th Avenue, 4th Avenue, Arizona, and Pacific) and five east-west streets were selected (1st Street, 8th Street, 16th Street, 24th Street, and 32nd Street). Answers on the survey results were plotted using these intersections. Foothills, Somerton, and San Luis cross-streets were not included. Major cross-streets named, but not at one of the selected intersections, were plotted to the closest intersection. A total of 194 responses were plotted.

Exhibit 3-16 indicates the percentage at each major intersection for streets running north-south. Avenue C is on the far western edge and Avenue 3 E on the eastern edge. Moving west to east the larger percentage, approximately 60 percent) are at the northern cross streets (1st Street and 8th Street). At 8th Street, the percentage switches to the two southern cross-streets (32nd Street and 24 Street). The percentage boarding at 4th Avenue and 32nd Street may be skewed due to surveys being conducted at a residential retirement facility in the area.

Avenue B and 4th Street are the highest potential home boarding north-south arterials according to the survey data. The disparity between east-west running arterials is not as evident with 8th Street (western section) and 32nd Street (central area) being slightly more prevalent (see Exhibits 16 and 17).

EXHIBIT 3-16 WEST-EAST CROSS STREET ANALYSIS

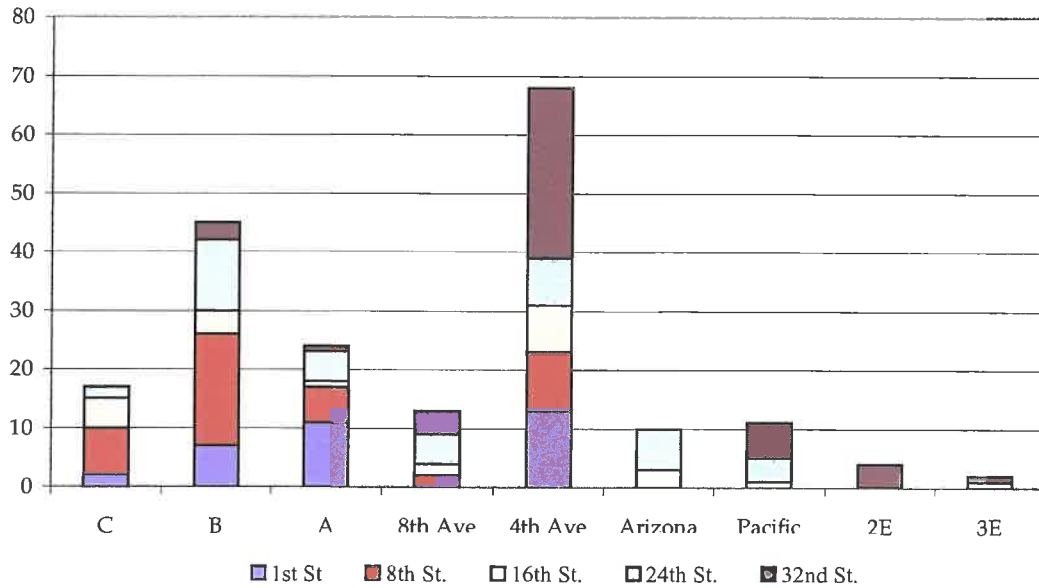
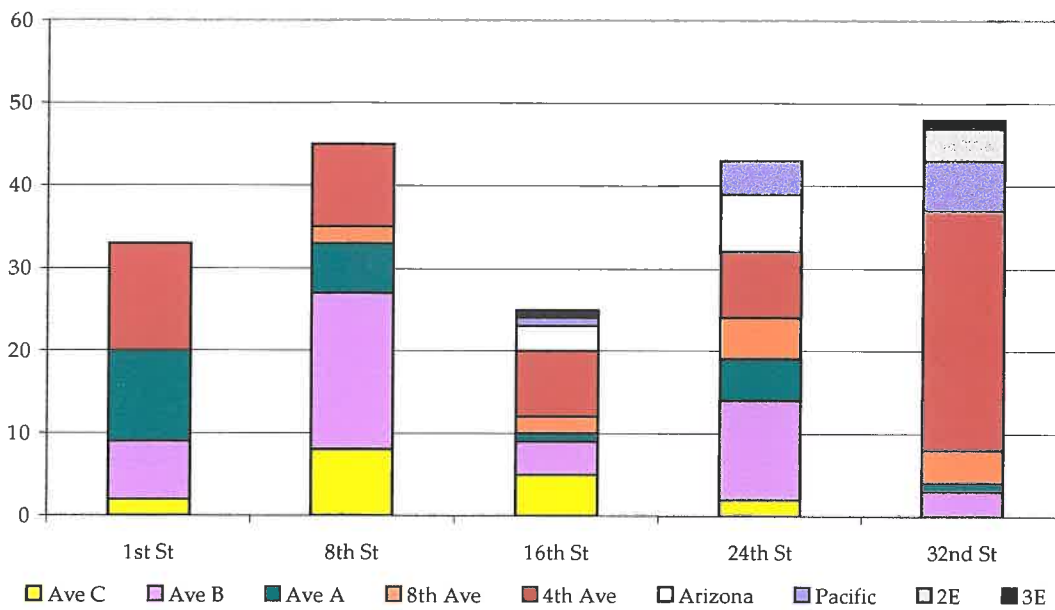


EXHIBIT 3-17 NORTH-SOUTH CROSS STREET ANALYSIS



INFORMATION CHANNELS

Overall, 34 percent of respondents indicated they subscribe to the *Yuma Daily Sun*. English-speaking respondents were more than twice as likely to read the daily paper than Spanish-speaking (47.1 percent to 19.1 percent). Respondents in the two high-income quadrants (over \$40,000 annual household income) were also more than twice as



likely to subscribe to the local newspaper (64.3 percent to 28.0 percent). The data infers that the newspaper reaches only a limited portion of the lower-income individuals and Hispanics.

Sixty-eight percent of all respondents listen to radio. No income level or language demonstrated a greater or lesser propensity to listen to radio. Among Spanish-speaking respondents, *La Campinsina* was the most frequently mentioned station. KTTI 95.1 FM, KLJZ 93.1 FM, and KBLU 560 AM were the three most frequently cited English-speaking stations.

Half the respondents indicated they never accessed the Internet. Another 25 percent indicated they only access the Internet occasionally. The low Internet usage may be related to the high percentage of respondents who are older and in a lower income level than the population as a whole.

Approximately half of the respondents indicated they had cable TV. Although the percentage of respondents in the lower-income quadrant (less than \$20,000) was slightly less likely to have cable TV, 43 percent of the respondents in this income quadrant did have cable. Cable TV should be considered as a viable information channel.



GENERAL PUBLIC SURVEY RESULTS

QUESTIONS REGARDING PERCEPTIONS OF PUBLIC TRANSPORTATION

1. Have you, or any member of your household, ever ridden Valley Transit or Dial-A-Ride in Yuma?

	TELEPHONE	INTERCEPT
Yes	7.0%	53.2%
No	93.0%	46.8%

(If no), are you aware of these services?

	TELEPHONE	INTERCEPT
Yes	66.7%	76.4%
No	33.3%	23.6%

2. Are you aware of these services?

	TELEPHONE	INTERCEPT
Yes	66.7%	75.8%
No	33.3%	24.2%

3. Have you ever ridden a public city bus in any other city?

	TELEPHONE	INTERCEPT
Yes	73.7%	55.9%
No	26.3%	44.1%



4. (If yes), in what cities have you ridden a public city bus (record no more than 3 responses)?

CITY (1)	TELEPHONE	INTERCEPT
Anaheim	1.0%	0.0%
Anchorage	1.0%	0.4%
Atlanta	0.0%	0.2%
Austin	2.0%	0.0%
Baltimore	0.0%	0.2%
Baton Rouge	1.0%	0.0%
Boise	4.0%	0.2%
Boston	1.0%	0.2%
Bullhead	0.0%	0.4%
Calexico	0.0%	0.2%
California	1.0%	1.1%
Canada	1.0%	0.2%
Carbonada	0.0%	0.2%
Chicago	3.0%	0.2%
Culican	0.0%	0.2%
D.C.	2.0%	0.0%
Dallas	0.0%	0.7%
Denver	5.0%	1.7%
Des Moines	1.0%	0.0%
Detroit	0.0%	4.0%
Edmonton	0.0%	0.2%
El Centro	0.0%	0.2%
El Paseo	0.0%	0.2%
Eugene	0.0%	0.2%
Honolulu	0.0%	0.2%
Houston	0.0%	1.3%
Kansas	1.0%	0.0%
Las Vegas	1.0%	0.0%
Long Beach	1.0%	0.0%
Los Angeles	5.0%	6.5%
Mesa	0.0%	0.2%
Mexicali	0.0%	0.7%
Mexico	2.0%	2.4%
Michigan	3.0%	0.0%
Milwaukee	1.0%	0.0%
Minneapolis	2.0%	0.4%
Missouri	0.0%	0.2%
Montana	1.0%	0.0%



CITY (I)	TELEPHONE	INTERCEPT
Montecito	1.0%	0.0%
Mt. Vernon	1.0%	0.0%
Nashville	0.0%	0.2%
Nevada	1.0%	0.2%
New Orleans	2.0%	0.0%
New York	1.0%	0.2%
New York City	0.0%	0.7%
Norwalk	1.0%	0.0%
Oakland	2.0%	0.0%
Ohio	1.0%	0.0%
Omaha	0.0%	0.2%
Pasadena	0.0%	0.2%
Phoenix	1.0%	8.0%
Portland	5.9%	0.2%
Redding	0.0%	0.2%
Richmond	0.0%	0.2%
Rock Island	1.0%	0.0%
Sakata	0.0%	0.2%
Salinas	0.0%	3.7%
San Antonio	0.0%	0.2%
San Diego	4.0%	2.6%
San Francisco	0.0%	7.0%
San Jose	0.0%	0.4%
San Luis	0.0%	3.5%
Santa Rosa	1.0%	0.0%
Santiago	0.0%	0.4%
Seattle	4.0%	0.7%
Sedric County	1.0%	0.0%
Somerton	0.0%	0.4%
Spokane	1.0%	0.2%
Springfield	1.0%	0.0%
St. Louis	0.0%	0.2%
St. Petersburg	0.0%	0.2%
Tacoma	0.0%	0.4%
Tucson	0.0%	3.0%
Utah	1.0%	0.2%
Vancouver	1.0%	0.4%
Victoria	0.0%	0.2%
Washington	2.0%	0.0%
Woodland	0.0%	0.2%
Yuma	0.0%	1.1%



(CITY 2)	TELEPHONE	INTERCEPT
Chicago	1.0%	0.0%
Denver	0.0%	0.2%
Hawaii	1.0%	0.0%
Indiana	1.0%	0.0%
Juneau	1.0%	0.0%
Las Vegas	0.0%	0.7%
Los Angeles	0.0%	0.7%
New York	3.0%	0.0%
Ontario	0.0%	0.2%
Oregon	1.0%	0.0%
Phoenix	2.0%	0.0%
Portland	1.0%	0.0%
Sacramento	1.0%	0.0%
San Diego	1.0%	0.0%
San Francisco	5.0%	0.0%
Seattle	1.0%	0.0%
Texas	1.0%	0.0%
Winache	1.0%	0.0%

CITY (3)	TELEPHONE	INTERCEPT
New York	2.0%	0.0%
Seattle	2.0%	0.0%
Tucson	1.0%	0.0%
Vancouver	1.0%	0.0%
Washington	1.0%	0.0%

5. (If yes), what was the primary reason you chose to ride a public bus (circle all that respondent lists)?

	TELEPHONE	INTERCEPT
It was the most convenient way to get to where I was going	25.9%	40.2%
It was more economical to ride public transit	9.4%	50.8%
Avoid traffic	7.1%	23.7%
Did not drive	11.8%	N/A
Did not have access to an automobile	28.2%	46.7%
Parking was difficult/expensive	3.5%	17.6%
Other	17.8%	(see below)



Other

	INTERCEPT
Air conditioned	0.2%
Convenience	0.2%
Didn't know the city	0.2%
Don't drive	0.2%
Don't have transportation	0.2%
Dropped off rental car and was flying out.	0.2%
Efficient	0.2%
Get to the airport	0.7%
Good sight seeing	0.2%
Handicapped	0.2%
Hate to drive	0.2%
More economical	0.2%
No car	0.2%
Preference	0.2%
Work, fun, adventure	0.2%

YCAT Transit Development Plan



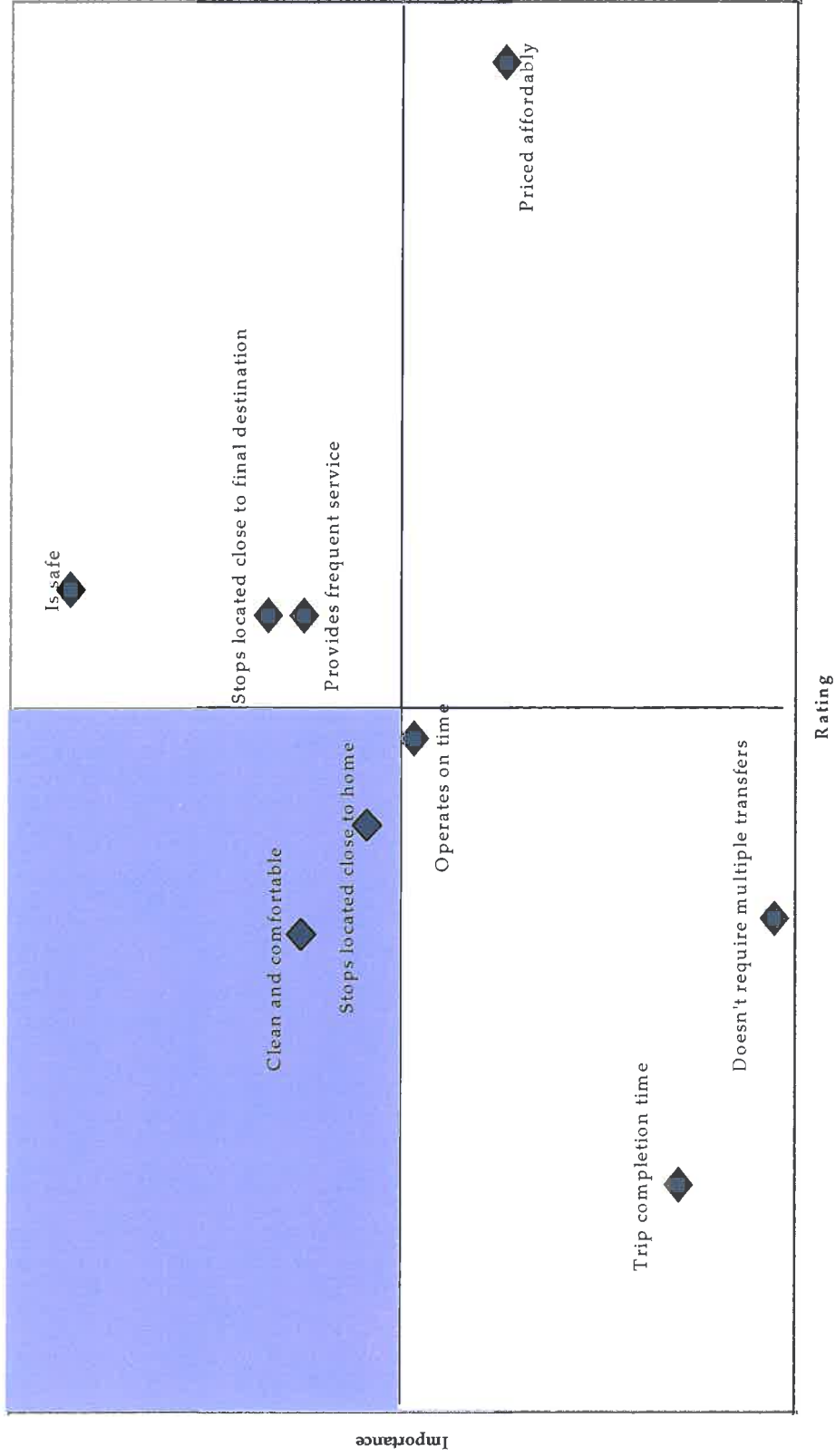
6. Below are several attributes of public transit. Please tell us how important each attribute would be to you if you were to use a public bus for transportation. Circle the appropriate number (1 = not at all important, 4=extremely important). Please rank each attribute according to your experiences with public transit (1=poor, 4=excellent).

TELEPHONE SURVEY	SERVICE RATING				IMPORTANCE OF ATTRIBUTE			
	POOR		EXCELLENT		UNIMPORTANT		IMPORTANT	
	1	2	3	4	1	2	3	4
a) Operates on time	3.4%	5.2%	34.5%	55.2%	6.3%	2.1%	14.6%	77.1%
b) Is priced affordably	0.0%	5.4%	21.4%	73.2%	4.2%	4.2%	21.1%	70.5%
c) Is clean and comfortable	1.8%	15.8%	26.3%	56.1%	2.1%	3.2%	20.0%	74.7%
d) Provides frequent service	0.0%	8.9%	33.9%	57.1%	2.1%	6.4%	12.8%	78.7%
e) Does not take an overly excessive amount of time to complete my trip	7.0%	8.8%	33.3%	50.9%	2.1%	8.5%	27.7%	61.7%
f) Is safe	1.8%	10.5%	24.6%	63.2%	2.1%	3.2%	7.4%	87.4%
g) Has stops located close to home	3.6%	16.4%	16.4%	63.6%	3.2%	5.4%	15.1%	76.3%
h) Has stops located close to final destinations	3.6%	8.9%	23.2%	64.3%	2.2%	2.2%	19.4%	76.3%
i) Does not require multiple transfers to complete trip	5.4%	12.5%	21.4%	60.7%	6.5%	5.4%	25.8%	62.4%

INTERCEPT SURVEY	SERVICE RATING				IMPORTANCE OF ATTRIBUTE			
	POOR		EXCELLENT		UNIMPORTANT		IMPORTANT	
	1	2	3	4	1	2	3	4
a) Operates on time	3.6%	5.9%	17.0%	53.4%	2.7%	3.4%	9.0%	84.8%
b) Is priced affordably	3.1%	6.0%	14.4%	56.2%	3.7%	2.7%	9.1%	84.5%
c) Is clean and comfortable	1.9%	3.2%	16.1%	56.6%	2.6%	3.0%	10.7%	83.7%
d) Provides frequent service	1.8%	3.2%	14.2%	59.7%	3.7%	2.8%	11.7%	81.7%
e) Does not take an overly excessive amount of time to complete my trip	2.4%	7.4%	15.8%	54.7%	5.6%	4.2%	13.2%	76.8%
f) Is safe	1.3%	4.7%	14.4%	58.9%	3.7%	2.3%	8.8%	85.2%
g) Has stops located close to home	2.4%	5.0%	16.8%	55.5%	4.8%	3.0%	9.2%	82.9%
h) Has stops located close to final destinations	1.3%	4.7%	14.8%	59.4%	3.5%	3.3%	8.5%	84.7%
i) Does not require multiple transfers to complete trip	2.4%	5.0%	11.8%	61.7%	5.2%	3.0%	8.4%	83.4%



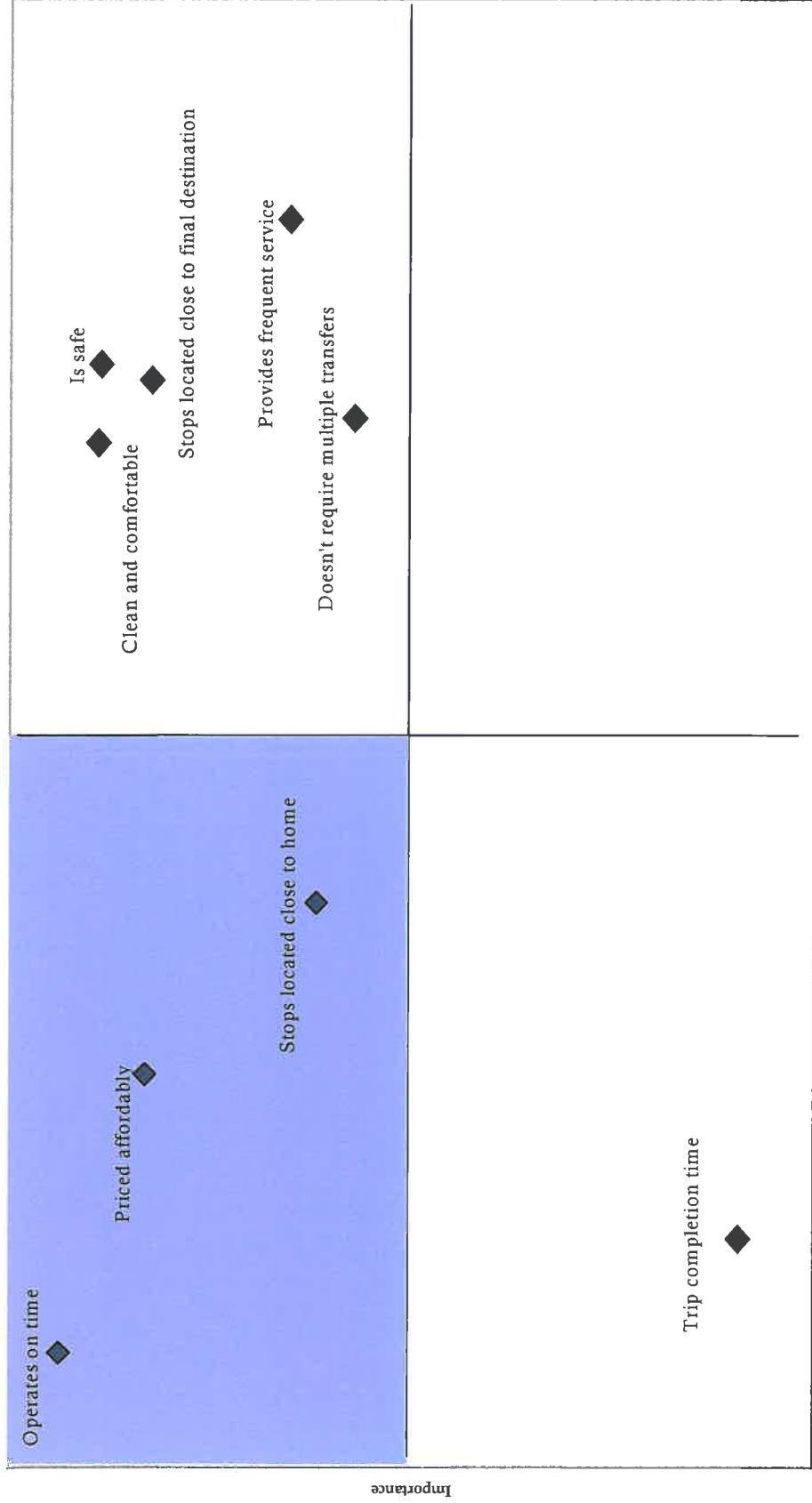
EXHIBIT 3-18 TELEPHONE SURVEY QUAD ANALYSIS



YCAT Transit Development Plan



EXHIBIT 3-19 INTERCEPT SURVEY QUAD ANALYSIS





7. Do you think it is important for local government to provide public transportation to the community?

	TELEPHONE	INTERCEPT
Yes	72.6%	98.9%
No	27.4%	1.1%

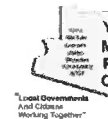
8. What do you believe to be the most important benefit(s) public transportation offers?

	TELEPHONE	INTERCEPT
Reduces traffic congestion	34.0%	52.8%
Reduces pollution	22.7%	48.5%
Provides travel alternatives	30.2%	43.5%
Provides mobility for seniors and disabled	48.5%	56.5%
Provides service to people who do not have transportation otherwise	67.0%	68.4%
Other	20.0%	1.5%

QUESTIONS REGARDING TRAVEL PATTERNS

9. Please tell me the locations you, or members of your family, travel to frequently (three or more times per month).

	TELEPHONE	INTERCEPT
Target	32.7%	45.0%
K-Mart	30.6%	54.7%
Wal-Mart	86.7%	75.7%
Shopping Center	76.5%	48.0%
Border Crossing (Mexico-U.S.)	31.6%	48.9%
Medical Center	36.7%	38.0%
Marine Corp Air Station	11.2%	N/A
Airport	12.2%	N/A
Swap Meet/Farmers Market	46.9%	28.3%
Grocery/Drug Store	77.2%	N/A
School	7.9%	96.3%
Work	4.0%	95.5%
Other	11.9%	N/A



Grocery/Drug Store (name)

	TELEPHONE
Albertson's	4.0%
Basha's	2.0%
Eckert	1.0%
Foothills	1.0%
Fry's	53.5%
Grocery Store	1.0%
IGA	2.0%
Kerr's	1.0%
Local Market	1.0%
Marine Base	1.0%
Olson's	1.0%
Rite Aid	1.0%
Sam's Club	1.0%
Wal-Mart	2.0%
Walgreens	5.0%

School (name)

	TELEPHONE	INTERCEPT
All High Schools	0.0%	0.2%
AWC	0.0%	0.2%
Castle Dome	2.0%	0.2%
Cibola	0.0%	0.2%
Event Star (Desert Sonora)	0.0%	0.2%
H.P.A.	0.0%	0.2%
Immaculate Conception	0.0%	0.2%
Kofa	0.0%	0.2%
Maria Atondo	3.0%	0.0%
Southern Western Christian	1.0%	0.0%
Pueblo	0.0%	0.4%
Sonoma Desert	0.0%	0.2%
Vista	0.0%	0.2%
Yuma Catholic High School	0.0%	0.2%
Yuma High School	2.0%	0.0%



Work (location)

	TELEPHONE	INTERCEPT
1 st Avenue	0.0%	0.2%
24 th Street	0.0%	0.4%
8 th & Calle	0.0%	0.2%
Avenue C & 8 th	0.0%	0.2%
AWC	1.0%	0.0%
Bank One	0.0%	0.2%
Dairy Queen	0.0%	0.2%
Dole	1.0%	0.0%
Downtown	0.0%	0.2%
Factor A	0.0%	0.2%
Hospital	1.0%	0.0%
MCAS Yuma	0.0%	0.4%
Somerton	0.0%	0.7%
South Gate	0.0%	0.2%
Yuma	1.0%	0.0%
Yuma Schools	0.0%	0.2%

Other (name)

	TELEPHONE	INTERCEPT
32 nd Street	0.0%	0.2%
Albertson's	0.0%	0.2%
All local	0.0%	0.2%
Cemetery	0.0%	0.2%
Church	1.0%	0.0%
Cocopah	0.0%	0.2%
Court House	0.0%	0.2%
Dentist	1.0%	0.0%
Different	0.0%	0.2%
Doctor	1.0%	0.4%
Eckert	1.0%	0.0%
Factory	0.0%	0.2%
Fry's	0.0%	0.2%
Golf Course	2.0%	0.0%
Hospital	1.0%	0.0%
Mall	1.0%	0.0%
Relative	0.0%	0.2%
Restaurant	1.0%	0.0%
Sam's Club	1.0%	0.0%
Sears	0.0%	0.2%



	TELEPHONE	INTERCEPT
Social Security	0.0%	0.4%
Tattoo Shop	0.0%	0.2%
Theatre	1.0%	0.0%
Valley H	0.0%	0.2%
Volunteer Work	1.0%	0.0%
Yuma	0.0%	0.2%

10. What is the closest major intersection to your home?

	TELEPHONE
14 E and 47 th	1.0%
24 th and Arabey	1.0%
36 th and Farwest	1.0%
40 th	2.0%
40 th and Foothill	5.9%
44 th	1.0%
44 th and Ironwood	1.0%
48 th and Foothill	1.0%
4 th Ave	1.0%
51 st and El Camino Blvd	1.0%
52 nd and Driftwood	1.0%
8 th and Ave A	1.0%
8 th and Foothill	1.0%
8 th and Frontage	1.0%
95 and I-8	1.0%
Amber	1.0%
Exit 12	1.0%
Exit and Foothill	1.0%
Foothill	5.9%
Foothill and 46 th	1.0%
Foothill and 32 nd	2.0%
Foothill and 38 th	1.0%
Foothill and 40 th	2.0%
Foothill and 44 th	2.0%
Foothill and 45 th	1.0%
Foothill and 46 th	2.0%
Foothill and 8 th	1.0%
Foothill and Fortuna	2.0%
Foothill and Frontage	4.0%
Foothill and I-8	18.8%
Fortuna	2.0%
Fortuna and 12 th	1.0%



	TELEPHONE
Fortuna and 32 nd	2.0%
Fortuna and 40 th	1.0%
Fortuna and 9E/95	1.0%
Fortuna and Frontage	3.0%
Fortuna and I-8	11.9%
Fortuna and Suzanne	1.0%
Frontage	1.0%
Frontage and I-8	1.0%
I-8	2.0%
I-8 and 95	1.0%
Petuna and Route 32	1.0%

	INTERCEPT
11 th and A St.	0.2%
12 th and A St.	0.4%
12 th and C St.	0.2%
13 th and 6 th St.	0.4%
16 th and 24 th St.	0.2%
16 th and 8 th St.	0.2%
16 th and A St.	1.1%
16 th and Arizona St.	0.2%
16 th and B St.	2.4%
16 th and I-95	0.2%
16 th and Pacific	0.2%
16 th and Valencia	0.2%
18 th and I-95	0.2%
1 st and 16 th	0.2%
1 st and 4 th	1.1%
1 st and A St.	0.2%
1 st and B St.	0.9%
1 st and C St.	0.2%
20 th & 13 th	0.2%
20 th & C St.	0.2%
21 st & C St.	0.2%
22 nd & B St.	0.2%
24 th St.	0.2%
24 th & 8 th	0.2%
24 th & A St.	0.7%
24 th & Arizona St.	0.2%



	INTERCEPT
24 th & B St.	0.2%
24 th & Pacific	0.7%
26 th & 44 th St.	0.2%
32 nd St.	0.2%
32 nd & 24 th St.	0.2%
32 nd & A St.	0.2%
32 nd & Arizona St.	0.7%
32 nd & B St.	1.7%
32 nd & Catalina Dr.	1.1%
32 nd & County Rd.	0.2%
32 nd & Fortuna	0.4%
32 nd & Pacific	0.2%
32 nd & Windsor	1.1%
35 th & A St.	0.2%
38 th & Foothill Blvd.	0.2%
38 th & Hunter	0.2%
3 rd & 19 th St.	0.4%
3 rd & 1 st St.	0.2%
3 rd & 4 th St.	0.9%
3 rd & A St.	0.2%
3 rd & C St.	0.2%
3 rd St. E & 32 nd St.	0.4%
43 rd & Foothill	0.2%
46 th & Ironwood	0.2%
4 th & 16 th St.	1.1%
4 th & 1 st St.	0.2%
4 th & 24 th St.	0.2%
4 th & 32 nd St.	2.2%
4 th & 3 rd St.	0.2%
4 th & 44 th St.	0.2%
4 th & 5 th St.	0.2%
4 th & 7 th St.	0.2%
4 th & 8 th St.	1.5%
4 th & A St.	0.2%
4 th & Catalina Dr.	2.2%
4 th & Main St.	0.2%
5 th & 32 nd St.	0.4%
5 th St. E & 32 nd St.	0.9%
6 th & 13 th St.	0.2%
6 th & 32 nd St.	0.2%
6 th & 8 th St.	0.4%



	INTERCEPT
6 th & Seccion	0.2%
74 th & Madison	0.2%
8 th St.	0.2%
8 th & 16 th	0.2%
8 th & 24 th	0.9%
8 th & 32 nd	0.4%
8 th & A St.	1.3%
8 th & Ash	0.2%
8 th & B St.	1.3%
8 th & C St.	1.1%
8 th & Catalina Dr.	0.4%
8 th St. & Fortuna	0.2%
98 th & Valencia	0.2%
A St	0.2%
A St. & 12 th	0.2%
A St. & 1 st St.	0.4%
A St. & 3 rd St.	0.9%
A St. & 8 th St.	1.1%
A St. & B St.	0.9%
A St. & Main St.	0.2%
A St. & Somerton	0.2%
Araby Rd.	0.7%
Araby Rd. & 24 th St.	0.2%
Araby Rd. & 35 th St.	0.2%
Arizona & 16 th St.	0.2%
Arizona & 24 th St.	0.2%
Arizona & 26 th	0.2%
Arizona & San Luis	0.4%
B St. & 16 th St.	0.2%
B St. & 3 rd St.	0.7%
B St. & 8 th St.	0.9%
B St. & Main St.	0.2%
Beintar Apartments	0.2%
Bluestar	0.2%
Border	0.2%
Border Crossing (Main Street)	0.2%
Broad & Germantown	0.2%
Broadway & 4 th St.	0.2%
C St. & 12 th St.	0.4%
C St. & 16 th St.	0.4%
C St. & 24 th St.	0.2%



	INTERCEPT
C St. & 8 th St.	0.4%
Cash As	0.2%
Casitas Apartments	0.2%
Catalina Dr.	0.4%
Circa Del Sol Market	0.4%
County 14	0.2%
County Rd. & Somerton	0.4%
D St. & San Luis	0.4%
Don't Know	0.6%
F St. & Main St.	2.4%
Fontera & San Luis	0.2%
Foothills & Fortuna	0.2%
Fortuna & I-8	0.4%
Front Gate	0.2%
Frontera (border)	1.1%
Frontera (border) & San Luis	0.2%
Fortuna	0.2%
Glou St. & Somerton St.	0.2%
H St.	0.7%
H St. & 42 nd	0.2%
I-60	0.2%
I-8	0.2%
I-95	0.7%
I-95 & Main St.	0.2%
I-95 & Somerton St.	0.4%
K-Mart	0.4%
King Market	0.2%
Las Casitas Apartment	0.2%
Linea	0.2%
Los Oros & Rawelu (unable to decipher)	0.2%
Los Portales	0.2%
Madison & 24 th St.	0.2%
Main St.	1.7%
Main St. & 4 th St.	0.2%
Main St. & B St.	0.2%
Main St. & F St.	0.2%
Main St. & Oak	0.2%
Main St. & Somerton	1.6%
Main St. & Union	0.4%
Maxis Store	0.2%
Mesa	0.4%



	INTERCEPT
Minguno	0.2%
Paloverde & Pacific	0.2%
San Luis	0.7%
San Luis & Somerton	0.2%
Somerton	0.2%
Somerton & Yuma	0.9%
Somerton & Morgan	0.2%
Winter Dr.	0.2%

11. How far is this intersection from your home?

	TELEPHONE	INTERCEPT
1-2 blocks	19.8%	37.8%
3-4 blocks	18.8%	32.4%
5-6 blocks	5.2%	10.8%
More than 6 blocks	16.7%	13.1%
Don't know	6.3%	5.2%
Other	33.3%	0.7%

Other

	TELEPHONE	INTERCEPT
Across the street	0.0%	0.2%
.33 miles	1.0%	0.0%
1 mile	8.9%	0.0%
1.5 miles	2.0%	0.0%
1/2 mile	3.0%	0.0%
1/4 mile	1.0%	0.0%
2 miles	6.9%	0.2%
2.5 miles	1.0%	0.0%
3 miles	3.0%	0.0%
4 miles	2.0%	0.0%
5 miles	1.0%	0.2%
Less than a mile	1.0%	0.0%
Over 10 miles	1.0%	0.0%

12. How many automobiles are in your household?

	TELEPHONE	INTERCEPT
1	49.0%	49.8%
2-3	46.9%	38.1%
4 or more	4.1%	2.6%

13. How many licensed drivers are in your household?

	TELEPHONE	INTERCEPT
1	27.6%	43.6%
2-3	68.4%	44.1%
4 or more	4.1%	4.2%

QUESTIONS REGARDING INFORMATION SOURCES

14. Does anyone in your household subscribe to a local newspaper? If yes, which one(s)?

	TELEPHONE	INTERCEPT
Yes, The Yuma Daily Sun	66.7%	28.0%
No	32.3%	68.7%
Yes (other)	1.0%	3.3%

Other

	TELEPHONE	INTERCEPT
Arizona Republic	2.0%	0.2%
Del Sol	0.0%	0.2%
N.Y. Times	0.0%	0.2%
Tacoma News Tribune	0.0%	0.2%
U.S.A. Today	0.0%	0.2%
Phoenix News	1.0%	0.0%

15. How often do you access the Internet?

	TELEPHONE	INTERCEPT
Often	43.3%	19.9%
Occasionally	12.4%	27.5%
Never	44.3%	52.4%



16. Which radio stations do you listen to (circle all that apply)?

	TELEPHONE	INTERCEPT
KCFY 88.1 FM	4.1%	5.4%
KAWC 88.9 FM	3.1%	6.2%
KAWZ 90.1 FM	0.0%	5.9%
KYRM 91.9 FM	1.0%	6.7%
KLJZ 93.1 FM	10.2%	22.0%
KTTI 95.1 FM	18.4%	14.8%
KYJT 100.9 FM	3.1%	6.9%
KJOK 1400 AM	5.1%	8.1%
KAWC 1320 AM	1.0%	4.2%
KBLU 560 AM	6.1%	10.9%
Other	21.8%	25.2%
Do not listen to radio	34.7%	31.8%

Other

	TELEPHONE	INTERCEPT
100.3	0.0%	0.2%
101.5	0.0%	0.2%
102.5	1.0%	0.4%
104.1	0.0%	0.4%
104.5	3.0%	1.7%
105	1.0%	0.0%
107.9	0.0%	0.2%
1120 AM	0.0%	0.2%
89.5	0.0%	0.4%
90.7	0.0%	0.4%
95.5	0.0%	0.2%
96.1	1.0%	0.7%
98.2	0.0%	0.2%
98.3	1.0%	0.4%
Christian	2.0%	0.4%
Estacoun	0.0%	0.7%
KNLB	0.0%	0.2%
KNAU	1.0%	0.0%
KRIF	0.0%	0.2%
KYMA	1.0%	0.0%
KVI Seattle	0.0%	0.2%
La Campesina	2.0%	14.8%
Mexicali	0.0%	0.9%
Moderna	0.0%	0.7%
Public	2.0%	0.2%



	TELEPHONE	INTERCEPT
Radio Gallo	0.0%	0.2%
Radio Manatial	0.0%	0.2%
Radio Ranchito	0.0%	0.4%
Prescott 19	1.0%	0.0%
Spanish	1.0%	0.4%
Talk Radio	1.0%	0.0%
Yuma	2.0%	0.4%

17. Do you have cable TV?

	TELEPHONE	INTERCEPT
Yes	51.0%	49.1%
No	26.0%	43.8%
Satellite	22.9%	7.1%

QUESTIONS REGARDING DEMOGRAPHIC INFORMATION

18. What is your gender?

	TELEPHONE	INTERCEPT
Male	35.1%	45.8%
Female	64.9%	53.7%

19. What is your annual household income?

	TELEPHONE	INTERCEPT
Less than \$20,000	21.7%	59.7%
\$21,000 - 39,999	37.7%	30.3%
\$40,000 - 59,999	27.5%	8.2%
Over \$60,000	13.0%	1.6%

20. What is your age?

	TELEPHONE	INTERCEPT
0-12 years	0.0%	0.9%
13-17 years	3.1%	4.2%
18-34 years	8.2%	33.3%
35-59 years	14.4%	38.2%
60-69 years	37.1%	12.8%
70 or older	37.1%	10.4%



21. The total number and age of those who reside in your household (including self):

TELEPHONE	0	1	2	3	4	5	6	7
0-12 years	80.2%	8.9%	4.0%	3.0%	0.0%	0.0%	0.0%	0.0%
13-17 years	85.1%	5.9%	3.0%	2.0%	0.0%	0.0%	0.0%	0.0%
18-34 years	84.2%	5.9%	5.0%	1.0%	0.0%	0.0%	0.0%	0.0%
35-59 years	71.3%	11.9%	11.9%	1.0%	0.0%	0.0%	0.0%	0.0%
60-69 years	55.4%	21.8%	18.8%	0.0%	0.0%	0.0%	0.0%	0.0%
70 or older	47.5%	24.8%	22.8%	0.0%	0.0%	0.0%	0.0%	0.0%

INTERCEPT	0	1	2	3	4	5	6	7
0-12 years	54.3%	19.1%	13.9%	7.4%	1.3%	0.2%	0.0%	0.0%
13-17 years	72.6%	14.3%	6.7%	2.2%	0.2%	0.0%	0.0%	0.0%
18-34 years	55.2%	21.7%	14.6%	3.0%	1.1%	0.0%	0.4%	0.2%
35-59 years	42.2%	23.5%	30.2%	0.2%	0.2%	0.0%	0.0%	0.0%
60-69 years	77.8%	8.5%	9.6%	0.2%	0.0%	0.0%	0.0%	0.0%
70 or older	85.0%	7.6%	4.8%	0.0%	0.0%	0.0%	0.2%	0.0%



22. How many months during the year do you reside in the Yuma area?

	INTERCEPT	TELEPHONE
0 months	4.0%	0.0%
1 month	1.1%	1.0%
2 months	2.5%	0.0%
3 months	2.0%	3.1%
4 months	2.8%	4.1%
5 months	3.4%	15.5%
6 months	5.1%	17.5%
7 months	0.0%	6.2%
8 months	1.1%	3.1%
9 months	0.0%	2.1%
10 months	5.4%	0.0%
11 months	0.3%	0.0%
12 months	72.2%	47.4%



FIXED-ROUTE ONBOARD SURVEY ANALYSIS

A customer survey was conducted onboard Valley Transit buses during March 2002. The self-administered surveys were designed to obtain information at the rider level. The survey was designed to achieve three objectives:

1. Develop a demographic profile of riders.

The average rider is female, 41 years old, with a household income of \$11,000. She is most likely to be a homemaker. Spanish is her preferred language. She may have a valid driver's license, but does not have a car available.

2. Understand rider travel patterns.

According to the survey responses, the primary purpose of the trip onboard Valley Bus was *personal business* (26.2%). *Work* (19.7%) and *shopping* (19.7%) were the next most frequently mentioned reasons. Favored destinations were along the 32nd Street corridor between Avenue B (K-Mart) and Pacific Avenue (Wal-Mart) and the Medical Center.

3. Determine key attributes of customer satisfaction.

Incorporation of the top five attributes—**safety, cleanliness, trip duration, cost, and stops close to key destinations**—will be critical to the success Yuma's developing transit system from the perspective of existing customers.

METHODOLOGY

The on-board passenger survey was conducted over three weekdays and one Saturday during the second week of March. Surveys were administered on both routes. On the San Luis-Yuma route, trained surveyors rode on the buses for eight-hour shifts each day from 7:00 a.m. to 6:00 p.m. Due to the low ridership on the Foothill-Yuma route, the drivers administered the surveys. Sixty-two valid surveys were collected.

Data was coded, cleaned, and analyzed using SPSS software. Survey data was used to draw both system-wide and route-specific conclusions.

ANALYSIS

RIDER PROFILE

The average rider is female (61 percent female, 39 percent male), 41 years old, with a household income of \$11,000. She is most likely to be a homemaker. Spanish is her preferred language. She may have a valid driver's license (50 percent of respondents indicated they had a valid license), but may not have ready access to an automobile.

Although the Foothill route accounted for approximately 17 percent of ridership during the survey period, only 11 percent of the valid surveys were from riders on the route. Due to the limited number of surveys on the Foothill route, a comparison of the rider profiles between it and the San Luis route is problematic. Based on the limited

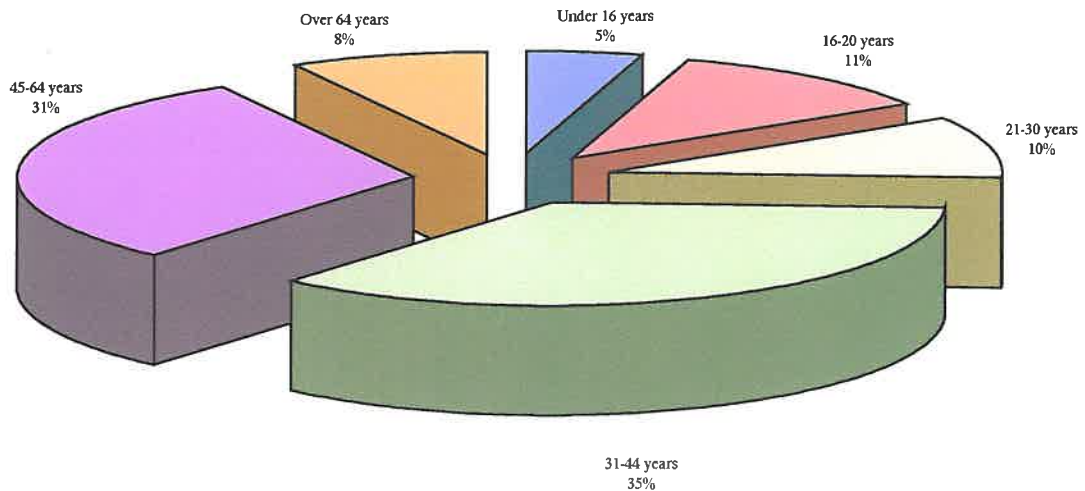
sampling, riders on the Foothill route are more likely to be male and earn higher incomes. English was the preferred language of 100 percent of the Foothill respondents. Although a higher 60 percent of Foothill respondents had a valid driver's license, 86 percent did not have access to an auto (compared to 68 percent of the San Luis respondents). Overall, 74.1 percent could be classified as *transit dependent* (did not have car and/or valid driver's license).

EXHIBIT 3-20 RIDER PROFILE BY ROUTE

	FOOTHILL-YUMA	SAN LUIS-YUMA	TOTAL SYSTEM
Gender	Male (57.1%)	Female (63.0%)	Female (60.7%)
Language Preference	English (100%)	Spanish (87.3%)	Spanish (77.4%)
Age	32 years	42 years	41 years
Household Income	\$15,000 per year	\$10,000 per year	\$11,000 per year
Occupation	Student (42.9%) Employed Full Time (28.6%)	Homemaker (36.5%) Employed Full Time (25.0%)	Homemaker (33.9%) Employed Full Time (25.4%)
Driver's License	60.0%	49.1%	50.0%
Access To Auto	14.3%	32.1%	30.0%

Seniors and youths tend to display a higher propensity to use public transit. However, only eight percent of respondents aboard Valley Transit were over 64 years of age. Five percent were under 16 and 16.2 percent were under 20.

EXHIBIT 3-21 AGE OF VALLEY TRANSIT RIDER





Sixty-four percent of the surveys were completed in Spanish. This language preference is higher than Yuma County's 50.5 percent Hispanic population. However, the population of the cities of Somerton and San Luis indicated over ninety percent Hispanic according to Census 2000, and many of Valley Transit riders are from these communities.

TRAVEL PATTERNS

Fifty-five percent of the respondents (50.9% San Luis and 85.7% Foothills) began their trip within one to two blocks of the bus stop. To get to the bus stop, 87 percent walked, while 8 percent were *dropped off*. Fifty-seven percent (52.7% San Luis and 85.7% Foothills) indicated their final bus stop was within one to two blocks of their final destination; 85 percent planned to walk to their destination from the bus stop.

Seventy-nine percent of the respondents were making a roundtrip on Valley Transit. Sixteen percent would be not be returning by bus, and five percent would be returning on another day.

On the San Luis route, sixty percent boarded the bus in San Luis. Of the respondents who specified their boarding stop in San Luis, 83 percent boarded at Maxi. The most frequently named boarding stops in Yuma were K-Mart, Wal-Mart, and the Yuma Medical Center.

EXHIBIT 3-22 MOST FREQUENT DESTINATIONS

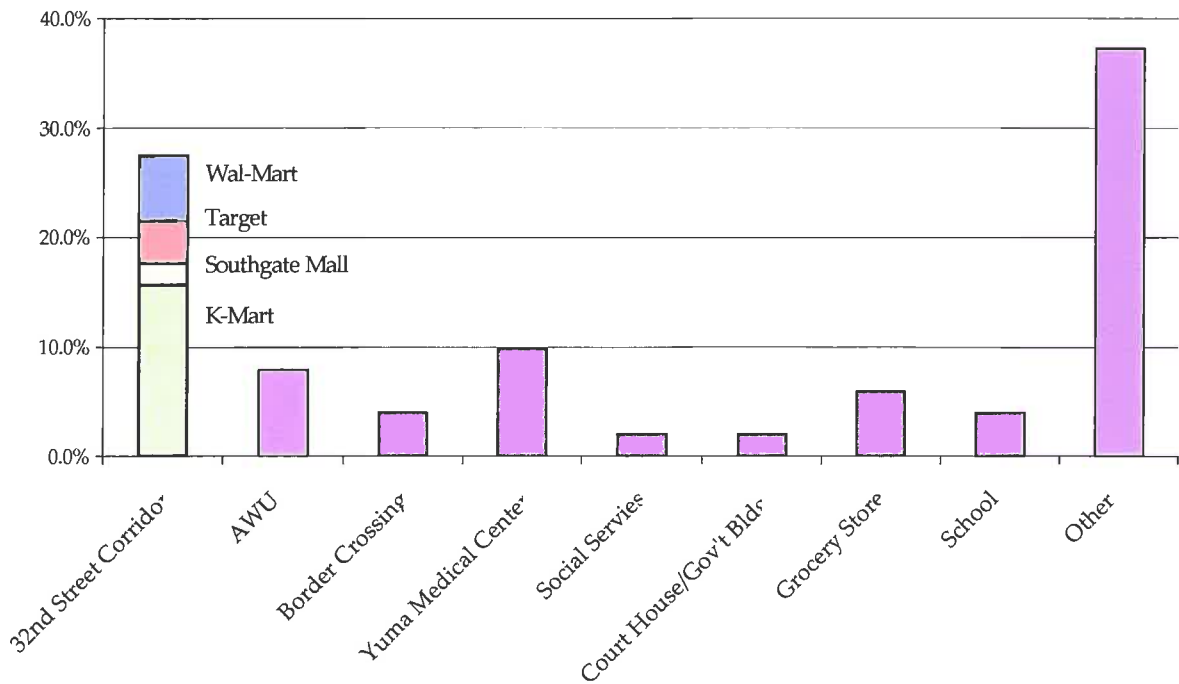
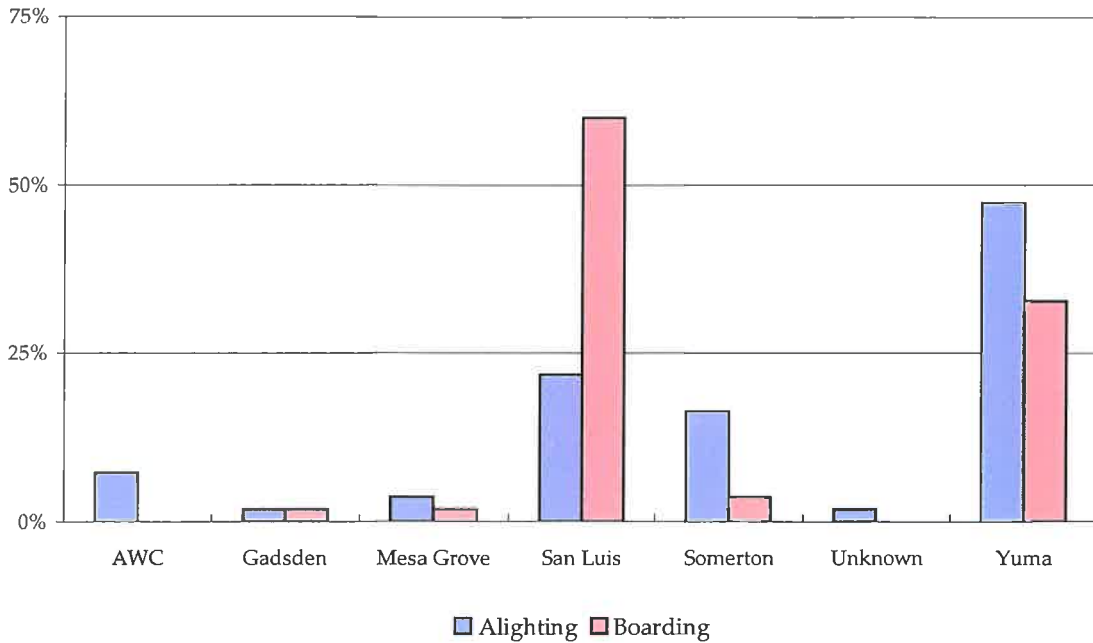




EXHIBIT 3-23 BOARDING AND ALIGHTING



On the Foothill route, 43 percent boarded in proximity to 8th Avenue and 32nd Street. The second most frequently cited boarding point was AWC (29 percent).

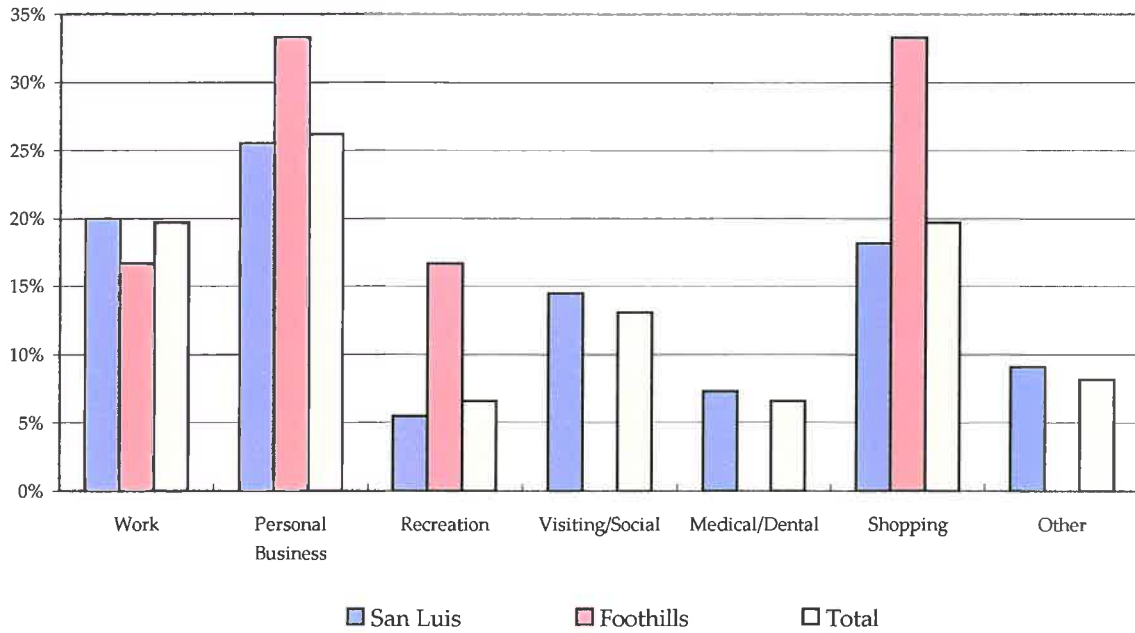
On the San Luis route, the most frequently cited destination was K-Mart (17.8% San Luis, 15.7% total). The next most popular destinations were the Yuma Medical Center (11.1% San Luis, 9.8% total) and Wal-Mart (7.4% San Luis, 6.5% total).

Arizona Western College (50.0% Foothills, 7.8% total) was cited most often on the Foothill surveys along with grocery store (50.0% Foothills, 5.9% total).

Sixty-six percent of the respondents would have made the trip by taxi if transit was not available; 12 percent would not have made the trip; and 12 percent would rely on a friend or family member. The reliance of the community on taxis is much higher than generally observed in other communities. Due to the relatively high cost, taxis are generally not a favored mode of transportation for lower-income persons.

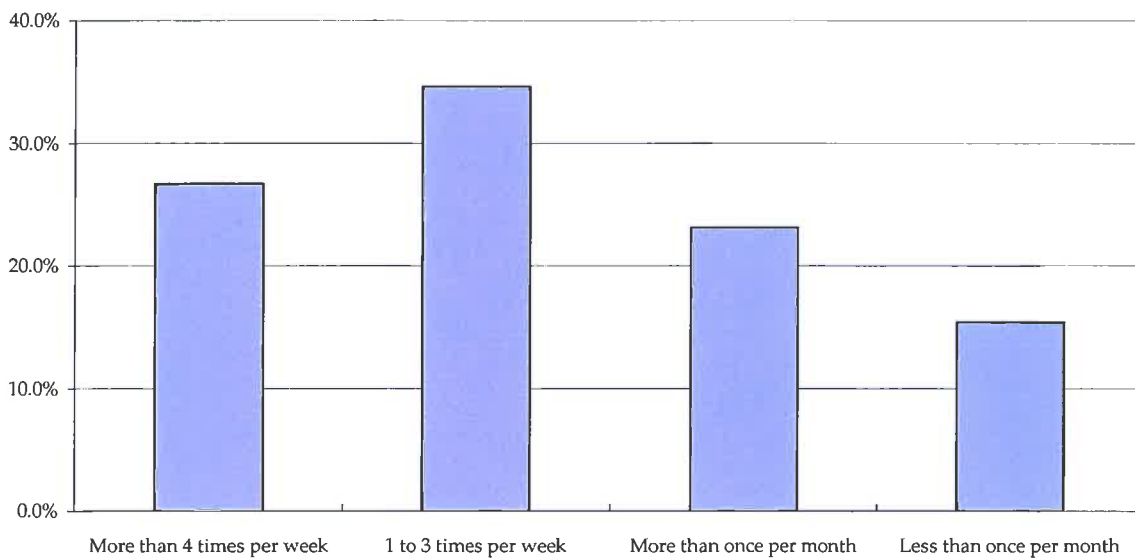
According to the survey data, the primary purpose of the trip aboard Valley Bus was *personal business* (26.2%). *Work* (19.7%) and *shopping* (19.7%) were the next most frequently cited purposes.

EXHIBIT 3-24 TRIP PURPOSE BY ROUTE



More than half the respondents ride Valley Transit at least once per week. Twenty-seven percent ride more than four times per week. The high number of repeat riders contributed to the low total number of valid surveys.

EXHIBIT 3-25 RIDER FREQUENCY





TRANSIT ATTRIBUTES

Sixty-five percent of the respondents from the onboard surveys indicated they access information about Valley Transit from *friends, family, or others*; 24 percent obtain information *aboard the bus*. Overall, 6.5 percent learned about Valley Transit from radio or television, primarily on the Foothill route. This higher percentage on the Foothill route can probably be attributed to the YMPO’s television campaign at the time of service initiation.

Respondents rated their experience riding Valley Transit positively in nine key categories. The highest rated category was *cost of bus ride*; the lowest rated category was *frequency of service*. The respondents to the onboard survey indicated *safety and cleanliness* were the most important attributes. *Frequency of service* and *time service begins in morning* was rated the least important attribute. Exhibit 3-7 ranks the various attributes.

EXHIBIT 3-26 RATING AND IMPORTANCE OF KEY TRANSIT ATTRIBUTES

ATTRIBUTE	RATING	IMPORTANCE
Cost of bus ride	1	2
Safety onboard bus	2	1
On-time performance	3	4
Cleanliness of bus	4	1
Time service begins in morning	5	6
Closeness of stops to destination	6	2
Closeness of stops to home	7	5
Time service ends in evening	8	3
Time to complete trip	9	2
Frequency of service	10	6

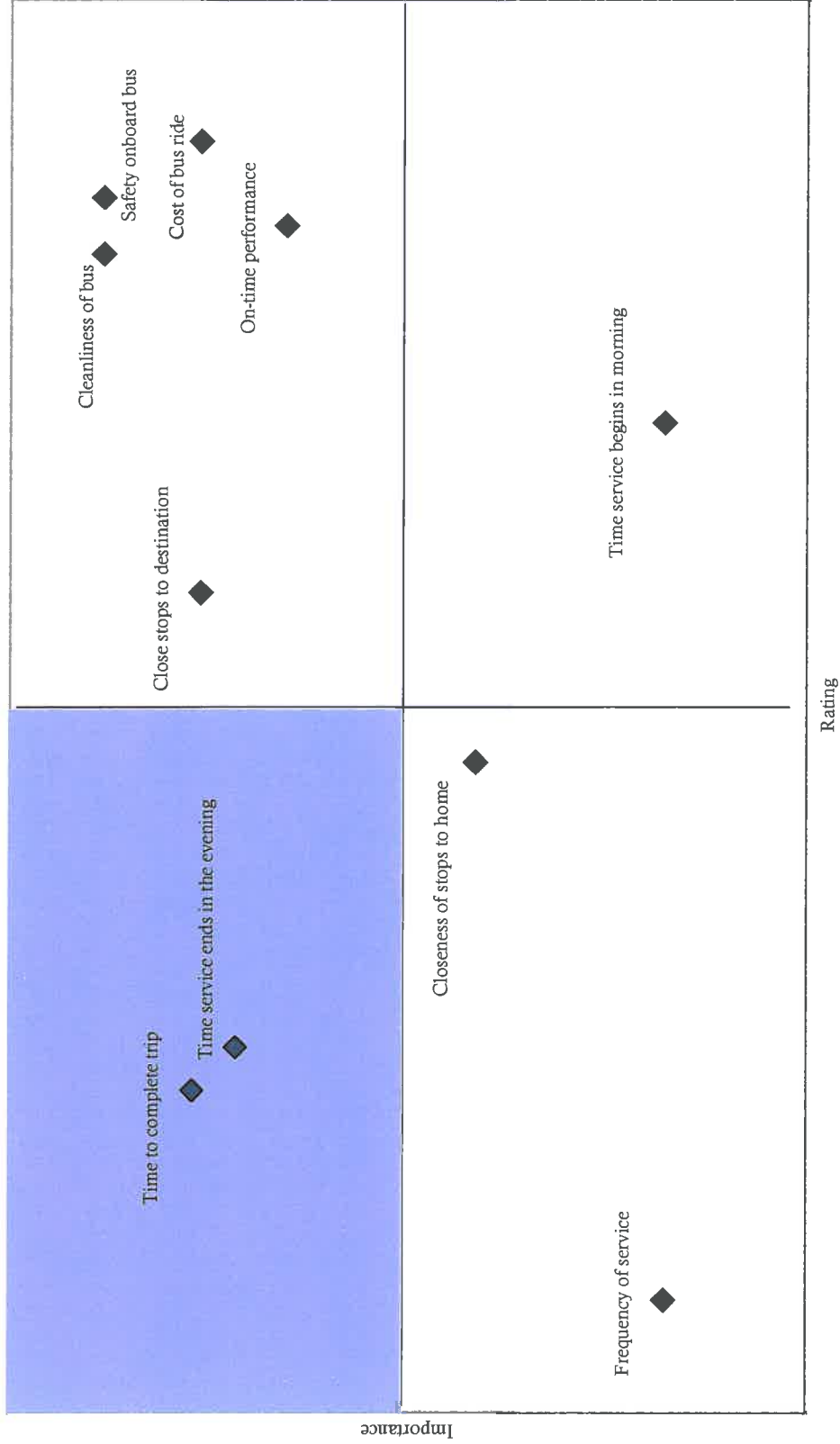
Incorporation of the top five attributes—**safety, cleanliness, trip duration, reasonable cost, and stops close to key destinations**—will be critical to the success of Yuma’s developing a transit system from the perspective of existing customers.

Plotting the *service rating* responses against relative *importance* (Exhibit 4 - Quadrant Analysis) illustrates the strengths the YMPO should emphasize through the service transition process: (1) **safety**, (2) **cleanliness**, (3) **on-time performance**, and (4) **reasonable cost**. The major weaknesses, which a developing system will need to overcome, include: (1) **trip duration** and (2) **time the service ends in the evening**. Although there was a low satisfaction regarding *frequency of service* and *closeness of stops to home*, these attributes did not rate as high in importance.

YCAT Transit Development Plan



EXHIBIT 3-27 QUADRANT ANALYSIS OF KEY ATTRIBUTE





ON-BOARD SURVEY RESULTS

QUESTIONS REGARDING TRAVEL PATTERNS

1. Where did you board this bus today?

SAN LUIS –YUMA ROUTE	VALID PERCENT
Gadsden	1.8%
Mesa	1.8%
Bienestar, San Luis	1.8%
Border Crossing, San Luis	1.8%
Casitas, San Luis	1.8%
Juan Sanchez/6 th Avenue, San Luis	1.8%
Maxi, San Luis	25.5%
San Luis	27.3%
Somerton	3.6%
12 Avenue, Yuma	1.8%
16 Street, Yuma	3.6%
1 st Avenue/5 th Street, Yuma	1.8%
Avenue A/5 th Street, Yuma	1.8%
Food City, Yuma	1.8%
Greyhound, Yuma	1.8%
Hospital, Yuma	5.4%
IGA, Yuma	1.8%
K-Mart, Yuma	3.6%
Mery, Yuma	1.8%
Post Office, Yuma	1.8%
Wal-Mart, Yuma	3.6%
Yuma	1.8%

FOOTHILLS -YUMA ROUTE	VALID PERCENT
8th and 32nd	28.6%
8th Street and C Avenue	14.3%
AWC	28.6%
Target	14.3%



2. How far from the bus stop above did you begin your trip?

	SAN LUIS	FOOTHILLS	TOTAL FIXED-ROUTE
1-2 blocks	50.9%	85.7%	55.0%
3-4 blocks	15.1%	14.3%	15.0%
5-6 blocks	3.8%	0.0%	3.3%
over 6 blocks	30.2%	0.0%	26.7%

3. How did you get to the bus stop where you boarded this bus today?

	SAN LUIS	FOOTHILLS	TOTAL FIXED-ROUTE
Walk	87.3%	85.7%	87.1%
Another bus	3.6%	0.0%	3.2%
Dropped off	9.1%	0.0%	8.1%
Taxi	0.0%	14.3%	1.6%

4. Is this part of a round trip by bus today?

	SAN LUIS	FOOTHILLS	TOTAL FIXED-ROUTE
Yes - returning by bus later today	69.1%	71.4%	69.4%
Yes, returning from earlier bus today	9.1%	14.3%	9.7%
No, not returning by bus	18.2%	0.0%	16.1%
No, will return by bus another day	3.6%	14.3%	4.8%

5. What is (was) the primary destination of your trip today?

	SAN LUIS	FOOTHILLS	TOTAL FIXED-ROUTE
K-Mart	17.8%	0.0%	15.7%
Southgate Mall	2.2%	0.0%	2.0%
Target	4.4%	0.0%	3.9%
Wal-Mart	6.7%	0.0%	5.9%
AWU	2.2%	50.0%	7.8%
Border Crossing	4.4%	0.0%	3.9%
Medical Center	11.1%	0.0%	9.8%
Social Services	2.2%	0.0%	2.0%
Courthouse/Govt. Bldg.	2.2%	0.0%	2.0%
Grocery Store	0.0%	50.0%	5.9%
School	4.4%	0.0%	3.9%
Other	42.2%	0.0%	37.3%



Other (specified)

	PERCENT OTHER	PERCENT TOTAL
Casino	17.6%	4.8%
Family/home/visiting	29.4%	8.1%
San Luis	5.9%	1.6%
Somerton	23.5%	6.5%
Southgate Mall	5.9%	1.6%
Vitan visitor	5.9%	1.6%
Wal-Mart	5.9%	1.6%
Work	5.9%	1.6%

Other category used in some duplicate answers

School (specified)

	PERCENT SCHOOL	PERCENT TOTAL
Gadsden	33.3%	1.8%
Som del Sol	33.3%	1.8%
Yuma Catholic High school	33.3%	1.8%

6. What is the purpose of your trip?

	SAN LUIS	FOOTHILLS	TOTAL FIXED-ROUTE
Work	20.0%	16.7%	19.7%
Personal Business	25.5%	33.3%	26.2%
Recreation	5.5%	16.7%	6.6%
Visiting/Social	14.5%	0.0%	13.1%
Medical/Dental	7.3%	0.0%	6.6%
Shopping	18.2%	33.3%	19.7%
Other	9.1%	0.0%	8.2%

Other (specified)

	PERCENT OTHER	PERCENT TOTAL
Academic	14.3%	1.6%
All of the above	14.3%	1.6%
Family	28.6%	3.2%
Gambling	14.3%	1.6%
Mail	14.3%	1.6%
School	14.3%	1.6%



7. Do you normally take the bus for this purpose?

	SAN LUIS	FOOTHILL	TOTAL FIXED-ROUTE
Yes	88.9%	85.7%	88.5%
No	11.1%	14.3%	11.5%

8. Where will you get off this bus?

	SAN LUIS	FOOTHILLS	TOTAL FIXED-ROUTE
15th AND 8th	0.0%	14.3%	1.6%
16th	1.8%	0.0%	1.6%
1st AND 10th	1.8%	0.0%	1.6%
32nd	1.8%	0.0%	1.6%
4th AND 24th	0.0%	14.3%	1.6%
8th	3.6%	0.0%	3.2%
8th AND 4th	0.0%	14.3%	1.6%
Alatiendo AND Del Sol	1.8%	0.0%	1.6%
Ave A AND 24th	1.8%	0.0%	1.6%
AWC	1.8%	42.9%	6.5%
Bank of America	1.8%	0.0%	1.6%
Cocopha	3.6%	0.0%	3.2%
Del Sol AND Somerton	1.8%	0.0%	1.6%
Escuela	1.8%	0.0%	1.6%
Gadsden	1.8%	0.0%	1.6%
Greyhound	1.8%	0.0%	1.6%
K-Mart	5.5%	0.0%	4.8%
Las Casitas	3.6%	0.0%	3.2%
Magnolia AND 3rd	1.8%	0.0%	1.6%
Medical Center	1.8%	0.0%	1.6%
S.L.A. Bus Stop	1.8%	0.0%	1.6%
San Luis	14.5%	0.0%	12.9%
Shopping Center	1.8%	0.0%	1.6%
Somerton and Del Sol	1.8%	0.0%	1.6%
Somerton	9.1%	0.0%	8.1%
Southgate Mall	1.8%	0.0%	1.6%
Target	1.8%	0.0%	1.6%
Hospital	3.6%	0.0%	3.2%
Tienda Del Sol	1.8%	0.0%	1.6%
Wal-Mart	5.5%	0.0%	4.8%
Yuma	5.5%	0.0%	4.8%



9. How far from your final bus stop is your ending destination?

	SAN LUIS	FOOTHILL	TOTAL FIXED-ROUTE
1-2 blocks	52.7%	85.7%	56.5%
3-4 blocks	20.0%	0.0%	17.7%
5-6 blocks	12.7%	0.0%	11.3%
Over 6 blocks	14.5%	14.3%	14.5%

10. How will you reach your final destination?

	SAN LUIS	FOOTHILL	TOTAL FIXED-ROUTE
Walk	83.3%	100%	85%
Drive self/parked	1.9%	0.0%	1.7%
Another bus	7.4%	0.0%	6.7%
Dropped off	3.7%	0.0%	3.3%
Bicycle	0.0%	0.0%	0.0%
Taxi	3.7%	0.0%	3.3%
Other	0.0%	0.0%	0.0%

11. How would you make this trip if this bus were not available?

	SAN LUIS	FOOTHILL	TOTAL FIXED-ROUTE
Drive self	1.9%	0.0%	1.7%
Friend/family member	13.0%	0.0%	11.9%
Taxi	68.5%	40.0%	66.1%
Would not make trip	13.0%	0.0%	11.9%
Don't know	3.7%	40.0%	6.8%
Other	0.0%	20.0%	1.7%

QUESTIONS REGARDING SERVICE ATTRIBUTE

12. How do you get information about Valley Transit service?

	SAN LUIS	FOOTHILL	TOTAL FIXED-ROUTE
On the bus	21.8%	42.9%	24.2%
Radio/TV	5.5%	14.3%	6.5%
Direct mail	3.6%	0.0%	3.2%
Web site	0.0%	0.0%	0.0%
Employer	1.8%	0.0%	1.6%
Friends/Family/Other	67.3%	42.9%	64.5%

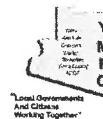
YCAT Transit Development Plan



Please tell us about our service.

Please rank the following aspects of Valley Transit Service by circling the number that best describes your experiences on the bus (1=worst, 4=best). And tell us how important that aspect is to you (1=not at all important, 4=extremely important).

	SERVICE RATING				IMPORTANCE OF ATTRIBUTE			
	POOR				UNIMPORTANT			
	1	2	3	4	1	2	3	4
a) Time bus service ends in the evening	5.3%	7.0%	17.5%	70.2%	0.0%	2.1%	6.4%	91.5%
b) Time bus service begins in the morning	1.9%	1.9%	15.4%	80.8%	2.4%	2.4%	9.5%	85.7%
c) Frequency of bus service	5.8%	7.7%	23.1%	63.5%	0.0%	2.4%	16.7%	81.0%
d) On-time performance	2.0%	0.0%	11.8%	86.3%	0.0%	0.0%	11.9%	88.1%
e) Time on bus to complete trip	5.9%	2.0%	27.5%	64.7%	0.0%	0.0%	9.5%	90.5%
f) Closeness of bus stops to home	3.9%	5.9%	13.7%	76.5%	0.0%	2.4%	11.9%	85.7%
g) Closeness of bus stops to destinations	3.8%	3.8%	11.5%	80.8%	0.0%	0.0%	9.8%	90.2%
h) Cost of bus ride	0.0%	1.9%	11.5%	86.5%	0.0%	0.0%	9.8%	90.2%
i) Cleanliness of bus	0.0%	1.9%	15.4%	82.7%	0.0%	0.0%	7.3%	92.7%
j) Safety onboard bus	0.0%	0.0%	17.3%	82.7%	0.0%	0.0%	7.3%	92.7%



QUESTIONS REGARDING DEMOGRAPHIC INFORMATION

13. Do you have a valid driver's license?

	SAN LUIS	FOOTHILL	TOTAL FIXED-ROUTE
Yes	49.1%	60.0%	50.0%
No	50.9%	40.0%	50.0%

14. Do you have a car available?

	SAN LUIS	FOOTHILL	TOTAL FIXED-ROUTE
Yes	32.1%	14.3%	30.0%
No	67.9%	85.7%	70.0%

15. What is your gender?

	SAN LUIS	FOOTHILL	TOTAL FIXED-ROUTE
Male	37.0%	57.1%	39.3%
Female	63.0%	42.9%	60.7%

16. What is your age?

	SAN LUIS	FOOTHILL	TOTAL FIXED-ROUTE
Under 16	5.5%	0.0%	4.8%
16-20 years	9.1%	28.6%	11.3%
21-30 years	9.1%	14.3%	9.7%
31-44 years	34.5%	42.9%	35.5%
45-64 years	32.7%	14.3%	30.6%
65 or older	9.1%	0.0%	8.1%

17. How often do you ride Valley Transit for any reason?

	SAN LUIS	FOOTHILL	TOTAL FIXED-ROUTE
More than 4 times a week	26.9%	57.1%	30.5%
1-3 times a week	34.6%	28.6%	33.9%
More than once a month	23.1%	14.3%	22.0%
Less than once a month	15.4%	0.0%	13.6%



18. What is your home zip code?

	SAN LUIS	FOOTHILL	TOTAL FIXED-ROUTE
85345	5.4%	0.0%	3.2%
85348	1.8%	0.0%	3.2%
85349	27.3%	0.0%	1.6%
85350	5.5%	0.0%	24.2%
85364	21.8%	0.0%	4.8%
85369	1.8%	71.4%	27.4%
85388	0.0%	0.0%	1.6%
85783	1.8%	14.3%	1.6%
85849	1.8%	0.0%	1.6%
Not Valid	6.2%	0.0%	5.3%

19. What is your annual household income?

	SAN LUIS	FOOTHILL	TOTAL FIXED-ROUTE
Less than \$10,000	59.2%	33.3%	56.4%
\$10,000-19,999	32.7%	50.0%	34.5%
\$20,000-29,999	6.1%	0.0%	5.5%
\$30,000-39,999	2.0%	16.7%	3.6%

20. Which of the following describes you best?

	SAN LUIS	FOOTHILL	TOTAL FIXED-ROUTE
Retired	9.6%	0.0%	8.5%
Employed part-time	17.3%	14.3%	16.9%
Employed full-time	25.0%	28.6%	25.4%
Student	11.5%	42.9%	15.3%
Homemaker	36.5%	14.3%	33.9%
Not currently employed	0.0%	0.0%	0.0%

21. Survey Language

	SAN LUIS	FOOTHILL	TOTAL FIXED-ROUTE	DIAL-A-RIDE	TOTAL ALL SERVICES
English	12.7%	100%	22.6%	96.6%	36.6%
Spanish	87.3%	0.0%	77.4%	3.4%	63.4%
Total	35.9%	4.6%	40.5%	19.0%	100.0%

DIAL-A-RIDE ONBOARD SURVEY ANALYSIS

A customer survey was conducted onboard Dial-A-Ride vehicles during March 2002. The self-administered surveys were designed to obtain information at the rider level. The survey was designed to achieve four objectives:

1. Develop a demographic profile of riders and trip purpose.

The average rider is female, 45 years old, with an average income of \$13,000. She lives in the City of Yuma and does not have a disability although she probably does not possess a valid driver's license. English is her preferred language.

2. Construct a trip profile for Dial-A-Ride Service.

Of those who participated in the survey, nearly 51.7 percent used DAR to travel to work or school. The second highest frequency for trip purpose was *medical* and *dental* appointments. Ninety-three percent were making a round trip via Dial-A-Ride. All of the seven percent who were taking Dial-A-Ride only one-way and were going to work or school indicated that they had another means of transportation for returning home.

3. Determine key attributes of customer satisfaction.

The Yuma Metropolitan Planning Organizations' (YMPO) demand-response service received generally high marks from those customers participating in a recent on-board survey. The three areas that respondents rated as most important (100 percent of respondents classified as *very important*) were safety on bus, time to complete the trip, and on-time performance. Respondents also rated these three service attributes highly for the current service. Much of the success of the DAR program can be attributed to the relationships between the drivers and their customers. The *hometown* attitude of the contractor has generated support for the program among the current customer base.

4. Ascertain feasibility for mode switch (demand-response to fixed route).

Given the fact that a large percentage of the survey respondents are not disabled, it is reasonable to assume that if fixed-route service were available to and from their destination, they would use it. Based on the survey results and experience with similar services in other communities, two major policy changes must be implemented in order to achieve this mode shift. First, use of the DAR service must be limited to seniors and disabled and second, the price differential between the two products must be such that there is a financial incentive to use the fixed-route service. This assumption is supported by the fact that 74% of the respondents said they would use a (new) fixed-route service if the DAR service could not accommodate their trip needs.



METHODOLOGY

The on-board passenger survey was conducted during the second week of March. Survey instruments were pre-tested the previous week. Due to the familiarity of the riders with their drivers, the drivers administered the surveys. The extremely low response rate indicates that perhaps the surveys were not administered uniformly. Therefore, some bias may exist in the responses.

Data was coded, cleaned, and analyzed using SPSS software. SPSS software is a comprehensive statistical software package used to explore, analyze and display survey data. The Survey data was used to draw both system-wide and route-specific conclusions.

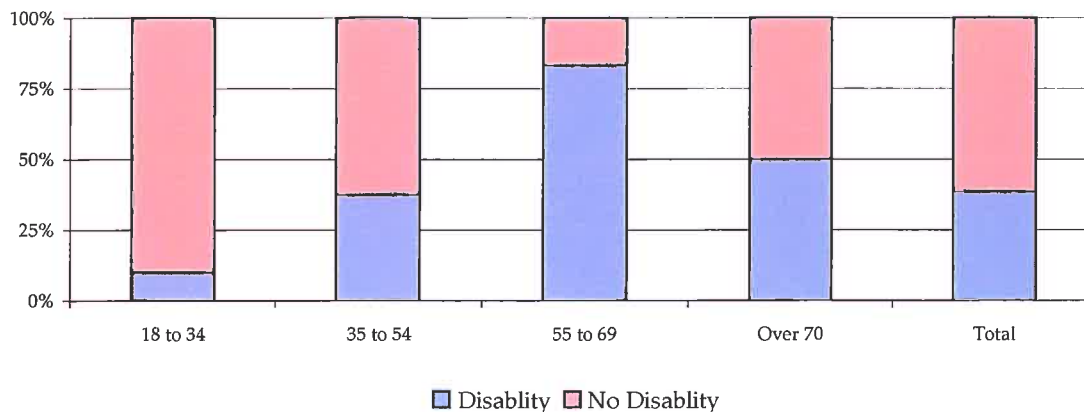
ANALYSIS

RIDER PROFILE

The customer demographics are similar to those of comparable demand-response services. The average rider is female (78 percent female, 22 percent male), 45 years old, with an average income of \$13,000. She lives in the City of Yuma (90 percent). English is her preferred language (97% of the surveys were completed in English). She does not have a disability (61 percent did not claim to have a disability). She is likely to be retired or employed full time. She may not have a valid driver's license (52 percent of the respondents indicated they did not have a valid license) or ready access to an automobile (75 percent of the respondents indicated they did not have a car available).

Thirty-six percent of the respondents indicated they were 55 years or older. While 78 percent of the respondents over the age of 55 also reported they had a disability, only 22 percent of the respondents under the age of 55 indicated a disability. Overall, 52 percent of the respondents are under the age of 55 and do not have a disability.

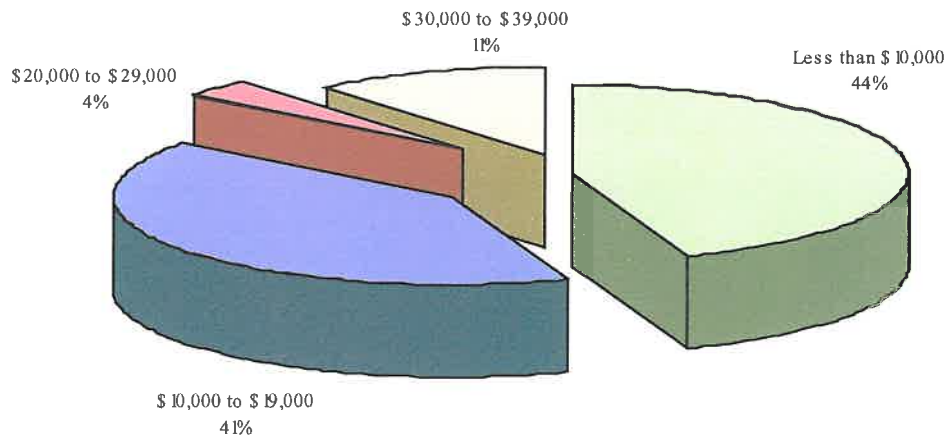
EXHIBIT 3-28 CLASSIFICATION OF DIAL-A-RIDE RIDER



Nearly 85 percent of the survey respondents reported having an annual income of less than \$20,000. While 41 percent of the respondents indicated that they are employed

either full or part-time, only ten percent of respondents over 55 stated they were employed (less than 4 percent of all respondents). Only nine percent of respondents indicated they had a disability and were employed.

EXHIBIT 3-29 HOUSEHOLD INCOME



TRIP PROFILE

Of those who participated in the survey, nearly 54% used DAR to travel to *work or school*. The second highest frequency for the trip purpose was *medical and dental appointments*.

Eighty-two percent of the most frequent riders (four or more times per week) were traveling to or from work (Exhibit 3-32). Generally,

respondents, who used Dial-A-Ride for transportation to *work*, only used Dial-A-Ride for that reason. Eighty-seven percent of the respondents who were going to *work or school* indicated they were under 55 years of age and did not consider themselves disabled (Exhibit 3-31).

EXHIBIT 3-30 TRIP PURPOSE

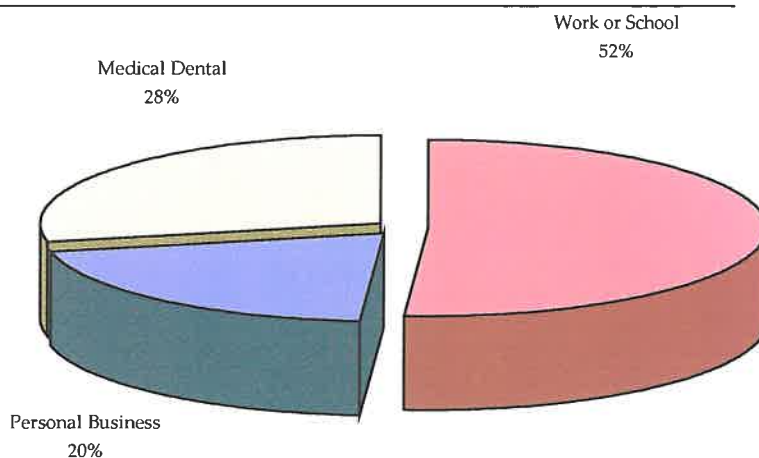


EXHIBIT 3-31 RIDER DEMOGRAPHICS FOR FREQUENCY OF USE

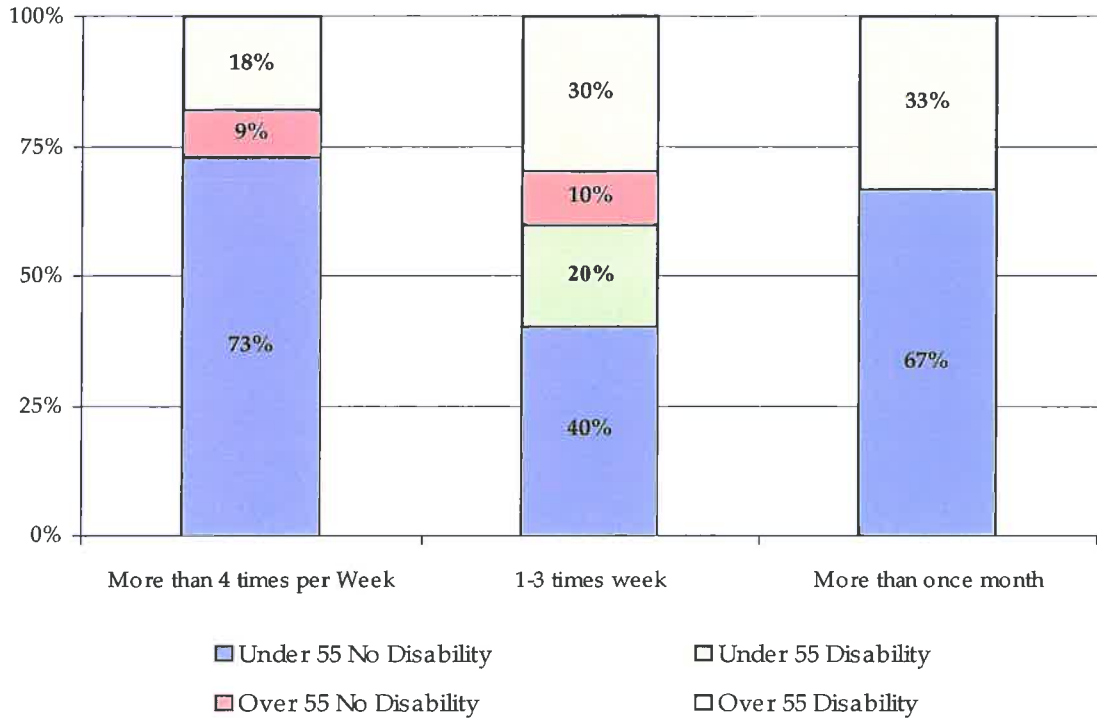
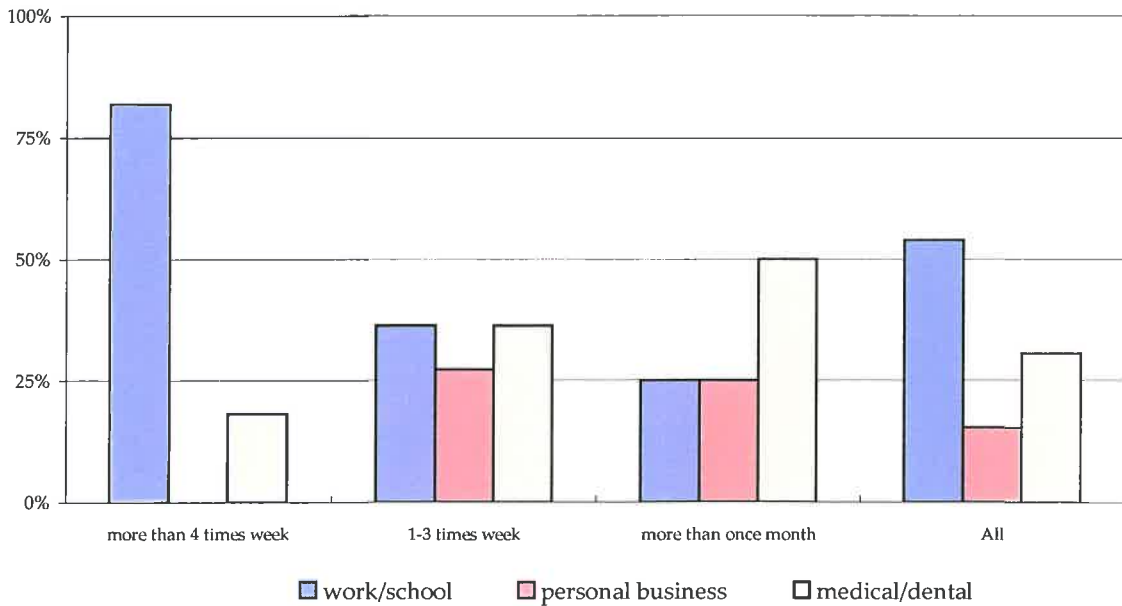
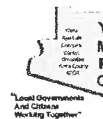


EXHIBIT 3-32 PURPOSE OF FREQUENT USERS



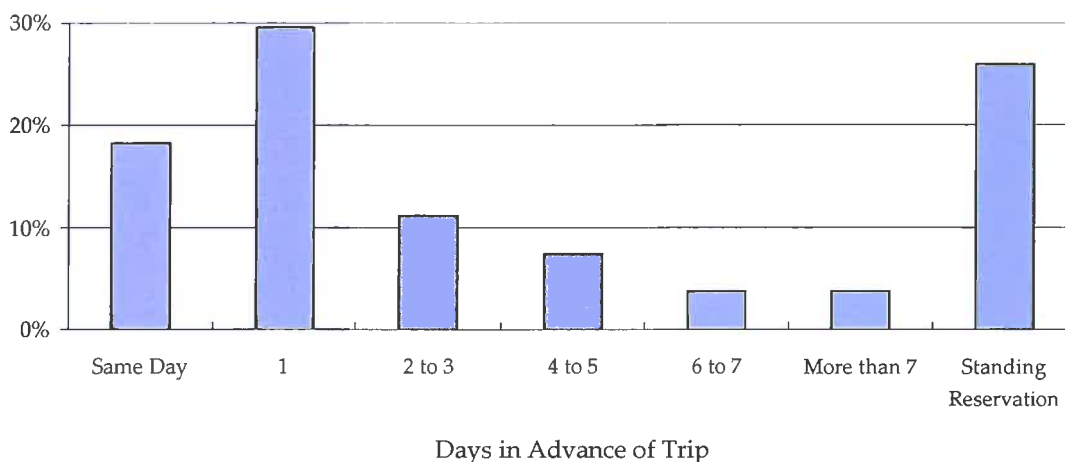


Ninety-three percent were making a round trip via Dial-A-Ride. All of the seven percent who were taking Dial-A-Ride only one-way and were going to *work* or *school* indicated that they had another means of transportation for returning home.

The highest number of respondents (30 percent) made their reservation *one day in advance* of their trip (Exhibit 34). Nineteen percent were able to call and book their ride on the *same day* at the trip. This is a relatively high percentage of same day reservations.

The survey indicated 26 percent *standing reservation* of which 57 percent were for *work* or *school*. The remaining 43 percent were for *medical and dental appointments*.

EXHIBIT 3-33 DIAL-A-RIDE ADVANCED RESERVATIONS



Only 4.3 percent of the respondents would not make the trip if Dial-A-Ride were not available, however, 21.7 percent *don't know* how they would make the trip if Dial-A-Ride were not an option. The highest percentage of respondents (35 percent) would rely on *family or friends* to take them if they were unable to use Dial-A-Ride.

An analysis of origin and destination from the surveys indicated 66 percent were traveling to or from the southwest quadrant of the city (bordered by avenue A on the East and 16th Street on the North). However, trip patterns from the survey were inconclusive and dispatch logs will be used for this analysis.

CUSTOMER SATISFACTION

The Yuma Metropolitan Planning Organizations' (YMPO) demand-response service received generally high marks from those customers participating in a recent on-board survey. The three areas that respondents rated as most important (100 percent of respondents classified as *very important*) were **safety on bus**, **time to complete the trip**, and on **time performance**. Respondents also rated these three service attributes highly for the current service (Exhibit 3-34).



Areas of the service that were rated poor or fair were **time service ends in the evening** (16.7 percent), **cost of the bus ride** (7.6 percent), **time service begins in the morning** (7.1 percent), and **reservation process** (3.6 percent).

EXHIBIT 3-34 RANKING OF SERVICE ATTRIBUTES

	SERVICE RANKING	IMPORTANCE RANKING
Safety onboard bus	1	1
Time to complete trip	2	1
On-time performance	4	1
Time service begins in morning	3	2
Reservation process	6	2
Cost of bus ride	5	3
Cleanliness of bus	4	4
Time service ends in evening	7	5

Highest Rank = 1, Lowest Rank = 7

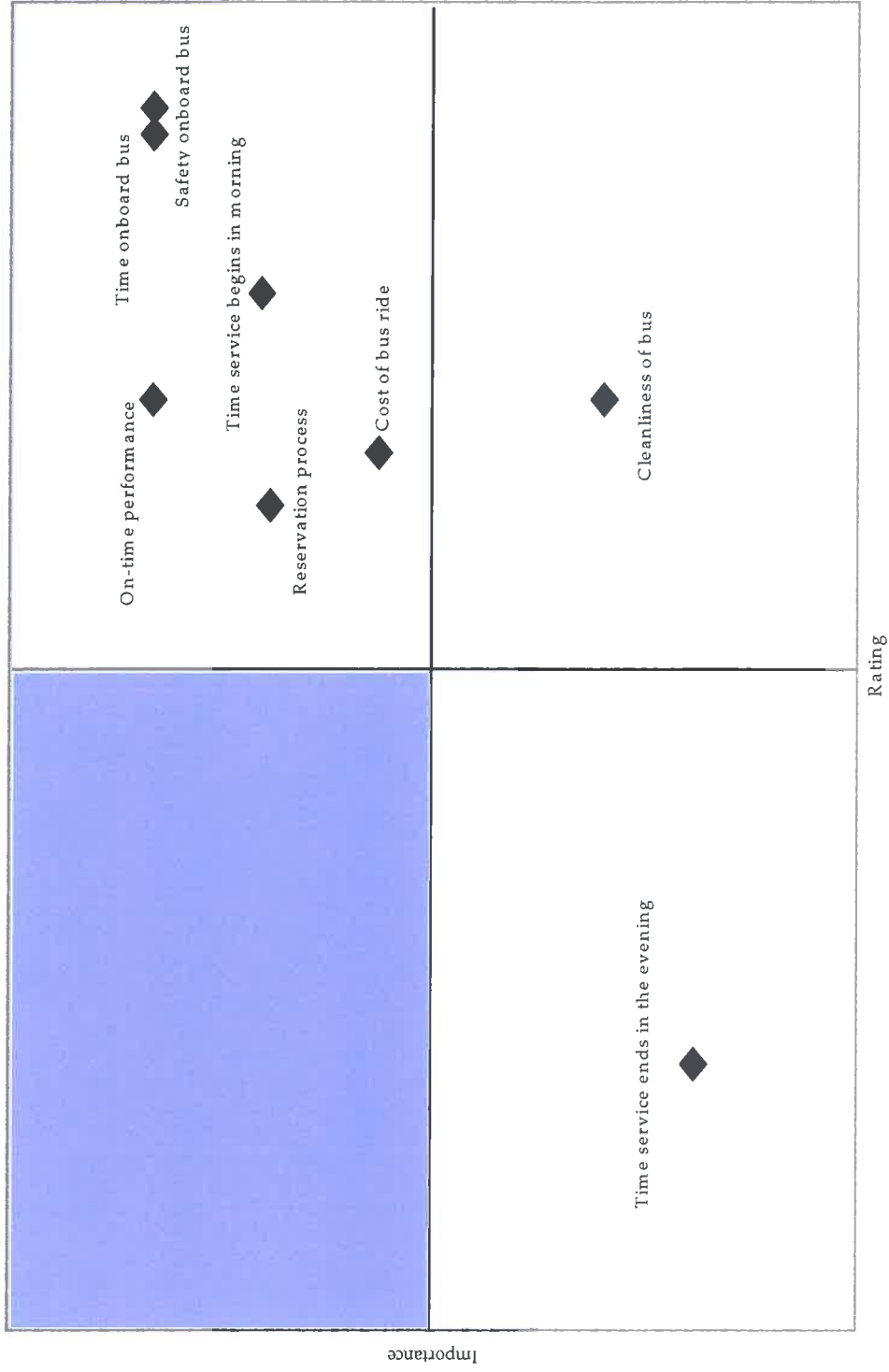
A comparison of the importance rating to the age of the respondent revealed that service hours (the time the service begins and ends) were most important among those under the age of 35. For those respondents 55 years and older, **reservation process** and **cost of service** received the highest importance rating.

Plotting the *service rating* responses against relative *importance* (Exhibit 3-35 - Quadrant Analysis) illustrates the strengths the Dial-A-Ride should emphasize through the service transition process: (1) **safety**, (2) **time aboard bus**, (3) **on-time performance** and, (4) **reasonable cost**. The major weaknesses, which a developing system will need to overcome, are **time the service ends in the evening**.

Much of the success of the DAR program can be attributed to the relationships between the drivers and their customers. The *hometown* attitude of the contractor has generated support for the program among the current customer base.



EXHIBIT 3-35 DIAL-A-RIDE ATTRIBUTE QUADRANT ANALYSIS

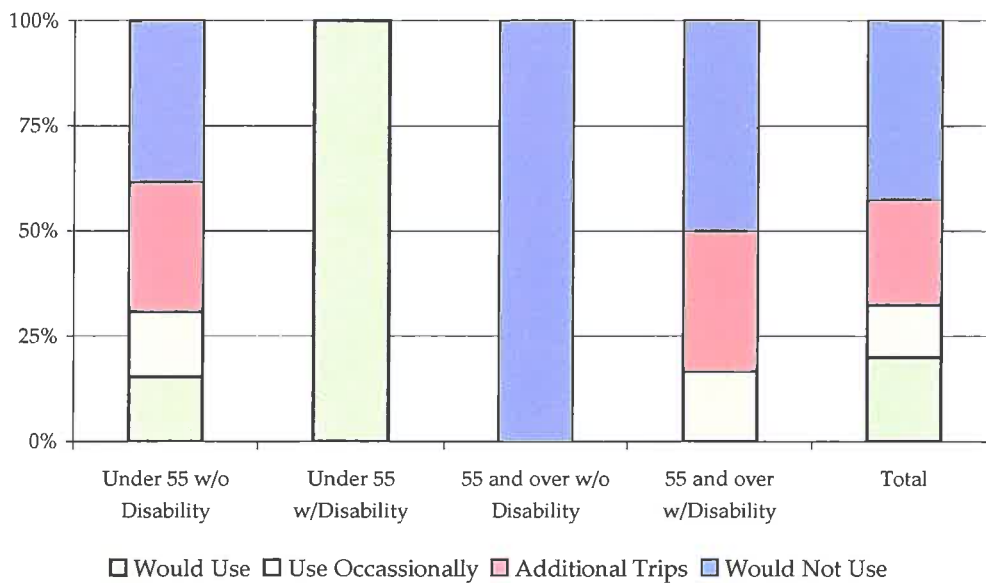




FEASIBILITY OF MODE SWITCH

The survey asked respondents how their travel would be affected by the availability of less-expensive, regular scheduled bus service. While 48 percent indicated they would not use a new fixed-route service, 52 percent indicated they would use the service for some or all of their trips. The target market for the fixed-route service, persons under 55 and who do not have a disability, indicated a higher propensity to switch to a fixed route; 62 percent indicated they would use the service for some or all of their trips. Age was less of a factor in making a switch than a disability (Exhibit 3-36).

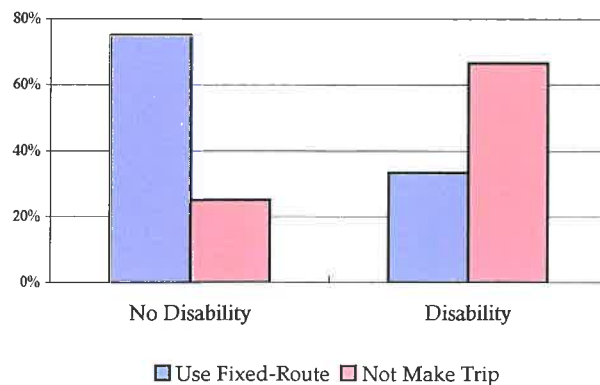
EXHIBIT 3-36 FIXED-ROUTE USE BY PASSENGER TYPE



When asked if they would use the new schedule service if Dial-A-Ride were not available, 60 percent indicated that they would, 40 percent indicated that they would not make the trip. An analysis by age and disability indicated that 75 percent of patrons who do not have a disability regardless of age would take the new service, however, only 33 percent who claimed a disability would use scheduled service, 67 percent would not make the trip. Age appeared to have no influence in the sample. Restricting Dial-A-Ride to seniors

EXHIBIT 3-37 MODE SWITCH *

* if Dial-A-Ride could not accommodate trip.



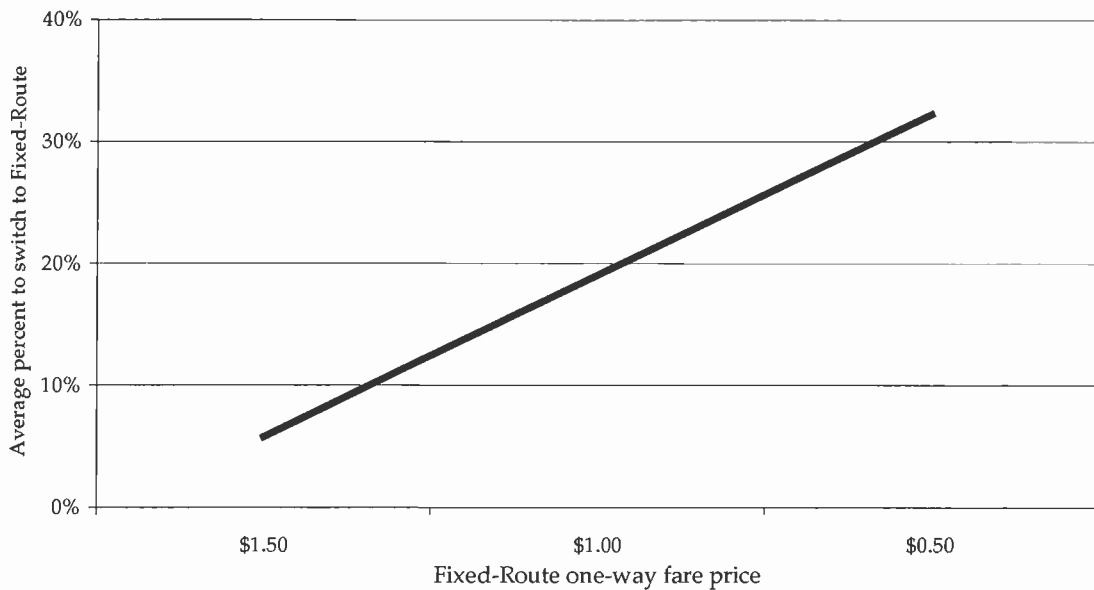


and persons with disabilities would increase the availability for persons who may have limitations on their travel options.

The Dial-A-Ride customer base is price sensitive. Riders are accustomed to the convenience of a curb-to-curb service, and are more resistant to change.

To ascertain the determining factors for patrons making a mode shift, respondents were asked questions to determine the relative effect price, frequency, and coverage would have on their propensity to use a scheduled service. Price was the determining factor. Averaging all scenarios, respondents had 5.5 times higher propensity to switch to a fixed-route mode with an average cost of 50 cents per ride compared to \$1.50 per ride (assuming Dial-A-Ride was priced at \$2.00 per ride).

EXHIBIT 3-38 EFFECT OF PRICE ON MODE SHIFT



The affect of coverage and frequency were less conclusive. While generally the propensity to move from the demand-responsive service to fixed-route service increased with increased coverage (as defined as *distance from destination*) and increased frequency (as defined as *wait time*), a statistically valid increase in propensity could not be determined.

To encourage mode shift of demand-responsive patrons, a new fixed-route service should have the following attributes in order:

- Priced at least \$1.00 less than the DAR service;
- Operate during the same hours as the DAR;
- Provide service within reasonable walking distance (2 blocks) of major traffic generators;
- Provide service (at a minimum) every 60 minutes.



EXHIBIT 3-39 EFFECT OF COVERAGE ON MODE SHIFT

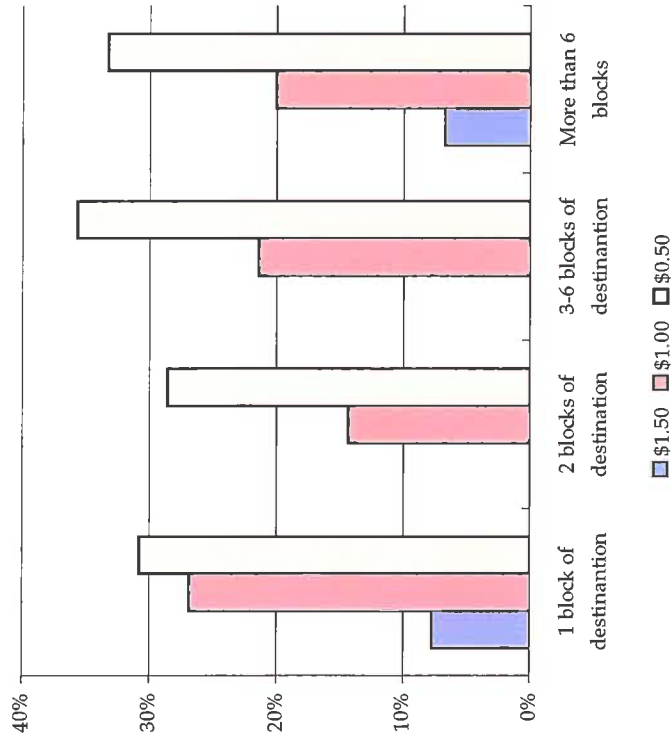
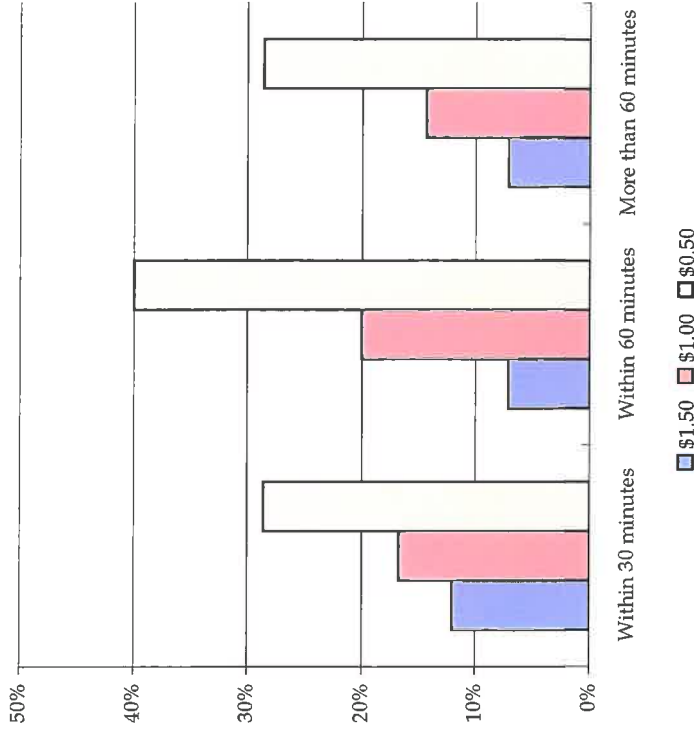


EXHIBIT 3-40 EFFECT OF FREQUENCY ON MODE SHIFT





DEMAND-RESPONSE SURVEY RESULTS

QUESTIONS REGARDING TRIP PROFILE

1. Where are you going?

	VALID PERCENT
1230 W 24 th Street	3.4%
1305 Main Street	3.4%
13650 N Frontage Road	3.4%
1550 14 Avenue	3.4%
2150 So Avenue A	3.4%
3826 W 16 th Street	3.4%
802 W 19 th Street	3.4%
C Rodeo	3.4%
Day Program	6.9%
Doctor Appointment	13.8%
Gambro	6.9%
Gila Vista Jr. High	3.4%
Happy Trails	3.4%
K-Mart	3.4%
Saguaro Office	10.3%
Southwest Eye Center	3.4%
Work	6.9%
YRMC	3.4%
Total	29.0%

2. Is this part of a round trip by bus today?

	TOTAL
Yes, I will be returning Dial-A-Ride later today.	79.3%
Yes, I am returning from an earlier bus trip today.	13.8 %
No, I will not be returning by Dial-A-Ride.	6.9 %

3. What is the purpose of your trip?

	TOTAL
Work/school	51.7%
Personal business	20.7%
Recreation	0.0%
Visiting/social	0.0%
Medical/dental	28.6%
Other (see below)	14.0%

Other (specify)

	TOTAL
Dialysis	6.9%
Groceries	3.4%



4. Do you normally take the Dial-A-Ride for this purpose?

	TOTAL
Yes	100%
No	0.0%

5. Where did Dial-A-Ride pick you up?

	VALID PERCENT
1230 W 24 th	3.4%
1334 S Avenue B #110	3.4%
13502 N Frontage Road	3.4%
2150 So Avenue A	3.4%
2200 Avenue B	3.4%
2651 W 3 rd Street	3.4%
3010 S 4 th Avenue Yuma	3.4%
3151 Fortuna	3.4%
3578 W 3 Place	3.4%
3826 W 16 Street	3.4%
412 May Avenue	3.4%
4 th Avenue	3.4%
576 Madison Avenue	3.4%
7201 E Hwy 80 #161	3.4%
C Rodeo	3.4%
Group Home	6.9%
Home	20.7%
K-Mart	3.4%
SW Eye Center	3.4%
Yuma Billing	3.4%

6. How far in advance did you schedule your trip?

	TOTAL
Same day	18.5%
1 day	29.6%
2-3 days	11.1%
4-5 days	7.4%
6-7 days	3.7%
More than 7 days	3.7%
Standing reservation	25.9%

7. How would you make this trip if this Dial-A-Ride were not available?

	TOTAL
Drive self	13.0%
Friend/family member	34.8%
Taxi	26.1%
Walk/bicycle	0.0%
Would not make trip	4.3%
Don't know	21.7%
Other	0.1%



8. How often do you ride Dial-A-Ride for any reason?

	TOTAL
More than 4 times a week	42.3%
1-3 times a week	42.3%
More than once a month	15.4%
Less than once a month	0.0%

YCAT Transit Development Plan



QUESTIONS REGARDING TRIP PROFILE

Please tell us about our service...

Please rank the following aspects of Dial-A-Ride Service by circling the number that best describes your experiences on the bus (1=worse, 4=best). And tell us how important that aspect is to you (1=not at all important, 4=extremely important).

	SERVICE RATING				IMPORTANCE OF ATTRIBUTE			
	POOR		EXCELLENT		UNIMPORTANT		IMPORTANT	
	1	2	3	4	1	2	3	4
a) Time service ends in the evening	4.2%	12.5%	12.5%	70.8%	3.8%	3.8%	0.0%	92.3%
b) Time bus service begins in the morning	0.0%	7.1%	7.1%	85.7%	0.0%	0.0%	3.8%	96.2%
c) On-time performance	0.0%	0.0%	25.0%	75.0%	0.0%	0.0%	0.0%	100%
d) Time on bus to complete trip	0.0%	0.0%	15.4%	84.6%	0.0%	0.0%	0.0%	100%
e) Cost of bus ride	3.8%	3.8%	7.7%	84.6%	0.0%	4.0%	0.0%	96.0%
f) Cleanliness of bus	0.0%	0.0%	25.0%	75.0%	0.0%	0.0%	16.0%	84.0%
g) Safety onboard bus	0.0%	0.0%	14.3%	85.7%	0.0%	0.0%	0.0%	100%
h) Reservation process	3.6%	0.0%	17.9%	78.6%	0.0%	0.0%	4.2%	95.8%



QUESTIONS REGARDING RIDER PROFILE

9. Do you have a valid driver's license?

	TOTAL
Yes	46.4%
No	53.6%

10. Do you have a car available?

	TOTAL
Yes	25.0%
No	75.0%

11. What is your gender?

	TOTAL
Male	22.2%
Female	77.8%

12. What is your age?

	TOTAL
Under 12	0.0%
12-17 years	0.0%
18-34 years	35.7%
35-54 years	28.6%
55-79 years	25.0%
70 or older	10.7%

13. Do you have a disability?

	TOTAL
No	60.7%
Yes, ADA certified	21.4%
Yes, disabled but not certified	17.9%

14. What is your home zip code?

	TOTAL
85356	3.4%
85364	69.0%
85365	13.8%
85367	6.9%
85369	3.4%



15. What is your annual household income?

	TOTAL
Less than \$10,000	44.4%
\$10,000-19,999	40.7%
\$20,000-29,999	3.7%
\$30,000-39,999	11.1%
\$40,000-49,000	0.0%
Greater than \$50,000	0.0%

16. Which of the following describes you best?

	TOTAL
Retired	37.9%
Employed part-time	10.3%
Employed full-time	31.0%
Student	3.4%
Homemaker	6.9%
Not currently employed	10.3%

QUESTIONS REGARDING MODE SHIFT

17. If Yuma offered less expensive, regular scheduled bus service, how would this affect your travel in and around Yuma?

	TOTAL
I would not use the new service	44.4%
I would use the new service instead of Dial-A-Ride	14.8 %
I would use the new service occasionally instead of Dial-A-Ride	11.1%
I may use the new service for additional trips	29.6 %



18. If Yuma provided less expensive, regular scheduled bus service, would you continue to use Dial-A-Ride...

a) If Dial-A-Ride cost \$2.00 and the new scheduled service cost \$1.50 and regular service stopped within:

	CONTINUE USING DAR	USE NEW SERVICE	DO NOT KNOW
1 block of destination	88.5%	7.7%	3.8%
2 blocks of destination	93.3%	0.0%	6.7%
3-6 blocks of destination	92.9%	0.0%	7.1%
More than 6 blocks of destination	86.6%	6.7%	6.7%

b) If Dial-A-Ride cost \$2.00 and the new scheduled service cost \$1.50 and regular service picked up within:

	CONTINUE USING DAR	USE NEW SERVICE	DO NOT KNOW
30 minutes of the time I want to leave	88.0%	12.0%	0.0%
60 minutes of the time I want to leave	78.6%	7.1%	14.3%
More than 60 minutes of the time I want to leave	76.9%	7.7%	15.4%

c) If Dial-A-Ride cost \$2.00 and the new scheduled service cost \$1.00 and regular service stopped within:

	CONTINUE USING DAR	USE NEW SERVICE	DO NOT KNOW
1 block of destination	69.3%	26.9%	3.8%
2 blocks of destination	71.4%	14.3%	14.3%
3-6 blocks of destination	71.5%	21.4%	7.1%
More than 6 blocks of destination	73.3%	20.0%	6.7%

d) If Dial-A-Ride cost \$2.00 and the new scheduled service cost \$1.00 and regular service picked up within:

	CONTINUE USING DAR	USE NEW SERVICE	DO NOT KNOW
30 minutes of the time I want to leave	79.1%	16.7%	4.2%
60 minutes of the time I want to leave	60.0%	20.0%	20.0%
More than 60 minutes of the time I want to leave	64.3%	14.3%	21.4%



e) If Dial-A-ride cost \$2.00 and the new scheduled service cost \$0.50 and regular service stopped within:

	CONTINUE USING DAR	USE NEW SERVICE	DO NOT KNOW
1 block of destination	61.5%	30.8%	7.7%
2 blocks of destination	57.1%	28.6%	14.3%
3-6 blocks of destination	57.2%	35.7%	7.1%
More than 6 blocks of destination	60.0%	33.3%	6.7%

f) If Dial-A-ride cost \$2.00 and the new scheduled service cost \$0.50 and regular service picked up within:

	CONTINUE USING DAR	USE NEW SERVICE	DO NOT KNOW
30 minutes of the time I want to leave	66.7%	28.6%	4.7%
60 minutes of the time I want to leave	46.7%	40.0%	13.3%
More than 60 minutes of the time I want to leave	50.0%	28.6%	21.4%

19. If Dial-a-Ride could not accommodate my trip, I would:

	TOTAL
Use the new service	59.3%
Not make trip	40.7%



PUBLIC INVOLVEMENT PLAN

Public outreach is an umbrella function, incorporating such activities as media releases, fact sheets, web sites, solicitation of public comment, and educating the public on key issues. The unifying element among these activities will be the development of positive inferences relative to public transit in Yuma.

Purpose: Ensure the public's proactive involvement and consensus concerning all phases of YMPO's transit plan development process.

Goals:

1. Inform the public about the transit plan development process.
2. Increase the public awareness and build support for public transit in the Yuma area.
3. Provide a mechanism for public comment.

Discussion: To promote early and continuing involvement with Yuma's transit plan development process, complete information must be developed and an opportunity for public comment provided.

Proactive public involvement accomplishes two missions. The first is to ensure the transit system is designed around the needs of residents and the local business community. The second is to provide each with a sense of ownership, which will develop when the public plays a key role in formulating and implementing the project and understand the benefits of their participation. Both missions work to ensure the public is committed for the long haul.

Experience in other communities reveals that support of public transportation is proportional to the public's knowledge about the service. Both ownership and involvement increases when public transit funding is threatened. When traditional funding becomes unavailable, creative funding alternatives must be explored. Access to *alternative* funding is often dependent on the degree of public support and ownership for the service. Public support can also assist in impeding current funding from being diverted to other programs.

While the YMPO must remain sensitive to legislative realities, a proactive public outreach campaign will assist in achieving a more suitable transit system for Yuma, along with creating a support base from which the system can more effectively operate.



STRATEGY 1: BUILD AWARENESS OF THE TRANSIT PLAN DEVELOPMENT PROCESS.

Tactics: A major aspect in generating awareness is to attract the attention and interest of journalists and news people so that the information is communicated to the public. The approach includes media releases, fact sheets, web presence, and active solicitation of public comment.

Activity: Regular distribution of public information pieces:

Immediate:

1. Overview of proposed system (vision) and key issues;
2. Proposed circulator route and other near term changes;
3. Opportunities of input to process;
4. Survey results.

Future:

5. Proposed longer term transit development;
6. Results of public participation.

Activity: Provide opportunities for public participation:

1. Web site/email;
2. Comment Cards;
3. Public Meeting.

STRATEGY 2: EDUCATE PUBLIC ON KEY ISSUES AFFECTING TRANSIT IN YUMA.

Tactics: Balanced presentation of key issues.

Activities: Ongoing

1. Identify presentation opportunities holding the greatest return on investment. Inclusion of cause/effect analysis.

Funding: Discussion of how transit is funded in AZ and other states. Delineation where funding comes from, percentage fare recovery. Where YMPO will get funding to implement a transit system.

Need: Survey results overwhelmingly indicate that the public believes local government should provide public transportation. The primary reason cited was to *provide transportation for those with no other alternatives.*



Feasibility: Build on success of current operations and proposed improvements to the current system. Discuss advantages an improved system will bring.

Outreach: Identify opportunities for public involvement.

2. Use speaking opportunities, media interviews, general interest brochure.



OPERATIONS PLAN

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OPERATIONS PLAN

The basis for any transit development plan is the formation of an effective and appropriate service strategy. The types of service provided, the schedules and routes of the services, and the quality of service effectively determines the success or failure of a transit operation. Based on the operations plan, capital requirements, and funding requirements, the appropriate institutional and management strategies can be determined. This chapter presents an overview of potential fixed-route service alternatives to meet the needs of Yuma Area residents.

The primary mission of the YMP O's transit program is to provide public transportation services throughout the populated areas of Yuma County, including the City of Yuma. The following alternatives were developed to improve both intracity and intercity transit services.

Service design is the most important initial factor in determining whether a person will use transit. If service is not designed to be reasonably frequent, convenient, and fast, people will not use transit regardless how well it is promoted or how clean and reliable the buses are. Research has shown that service design is more important than external factors in determining transit usage.

The following three elements had a major impact on the development of the Operation Plan and service design:

1. Characteristics of the service area (Geography, Climate, Heritage, Demographics, and Economy);
2. Trip Patterns of potential riders (Key destinations);
3. Effect on operational characteristics (Coverage, Frequency, and Schedule adherence);

The YCAT Transit Development Plan is divided into two periods: **Launch** and **Expansion**. The **Launch Plan** describes an immediate restructuring of the transit operation to provide better service to more people within existing resources. The **Expansion Plan** describes a scenario for developing the fixed-route service over the next three years.

LAUNCH PLAN

The immediate restructure of the fixed-route system, operated as Valley Transit, has three components:

1. **Intercity Express Route (San Luis-Yuma-AWC)** combines and streamlines the two intercity routes (Foothills-Yuma and San Luis-Yuma) into one route;



2. **Central City Circulator** creates a new bi-directional circulator within Yuma city limits.
3. **A new transfer point at Southgate Mall** connects the two routes.

INTERCITY EXPRESS ROUTE (SAN LUIS-YUMA-AWC)

The evaluation of the existing intercity routes indicated that the current route structure presented several barriers to transit ridership. The two existing routes operated on a two-hour headway and the serpentine route structure within the Yuma city limits, while serving most key destinations, increased trip time (time on the bus) to an unacceptable length for some passengers. The Foothills route was not able to build sufficient ridership to justify continuing service to the most distant stops. However, service to Arizona Western College (AWC) provided access to educational opportunities and was considered important to the community.

With the establishment of a Central City Circulator, which would provide transportation to key shopping, medical, and social service locations, the serpentine routing of the intercity buses could be eliminated. The result is a streamlined Intercity Express Route from San Luis and the border to AWC with stops in Gadsden, Somerton, and Yuma. The original proposal also eliminated the beginning loop in San Luis. However, the decision to maintain the San Luis loop was made to provide more convenient public transit access to San Luis residents within the route criteria and schedule guidelines.

By streamlining the two routes, a one-and-a-half-hour headway was achieved. The Intercity Express will connect with the Central City Circulator.

The new Intercity Express Route has four major advantages over the previous route structure:

1. Simplifies the route structure making it easier for passengers to understand;
2. Eliminates non-productive segments and improves service for more heavily patronized segments;
3. Provides more direct travel between San Luis and Yuma and AWC decreasing the travel time for most passengers;
4. Increases the frequency by 25 percent (every 1½ hours compared to every 2 hours).