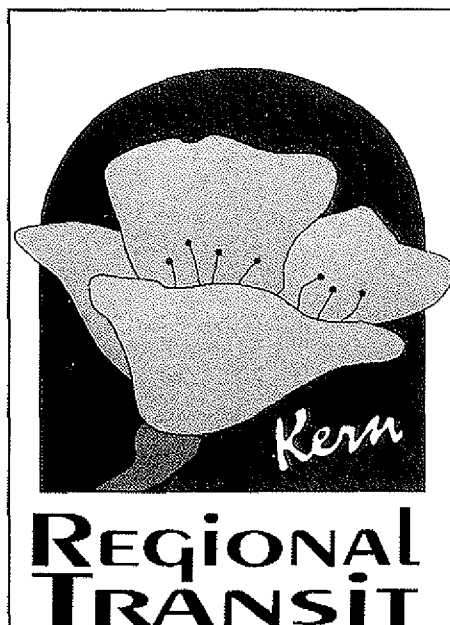


KERN REGIONAL TRANSIT

BAKERSFIELD-FRAZIER PARK CORRIDOR



TRANSIT DEVELOPMENT PLAN

June, 1995

NELSON\NYGAARD CONSULTING ASSOCIATES

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EXECUTIVE SUMMARY

The purpose of this study is to identify and evaluate existing transit service and needs for the Bakersfield-Frazier Park corridor, including service between Bakersfield and Frazier Park and Bakersfield and Lamont, and recommend a plan for managing and improving these transit services over the next five years. This plan focuses on short term transit needs and identifies opportunities for longer term transit improvements. The study began with a comprehensive transit needs assessment, including on-board surveys, general public telephone surveys, and analysis of existing service performance data, and concludes in a five year Transit Development Plan for the Bakersfield-Frazier Park Corridor.

Report Summary

Transit Needs

The transit improvements are based on careful review of existing transit services (Chapter 2) including detailed information about existing ridership patterns, performance trends and on-board and telephone survey responses. The results of the County's unmet transit needs hearings were also considered. A summary of the identified transit needs are outlined in Chapter 3 of this report and are addressed in the Service Plan.

Goals and Objectives

Based on the service evaluation and review of the Kern Regional Transit Comprehensive Goals and Objectives for 1994/95 a specific set of Goals and Objectives for each of the services in this corridor were developed (Chapter 4). These corridor specific goals and objectives provide standards and measures for each of the fixed route services included in this TDP.

Service Improvement

Chapter 5 presents three service improvement proposals for this corridor: 1) Increased Service Frequency, 2) Santa Clarita Connection/AM and PM Service Expansion, and 3) Bakersfield via Lamont Route Alternative. Key features of these service plans include:

- Improving service frequency to Frazier Park to five or six round trips per day between Bakersfield - Frazier Park to address the needs of El Tejon Unified High School students attending school or extra-curricular activities in Bakersfield, and to allow for exploration of the work commute potential of this route.
- Extending service from Bakersfield, through Frazier Park, to Santa Clarita and expanding AM and PM service on the route. This alternative provides

connections to Santa Clarita, Santa Clarita Transit and Metrolink to Los Angeles.

- Rerouting the Bakersfield-Frazier Park-Santa Clarita service through Lamont to improve service frequency in Lamont and provide direct service to Santa Clarita and Metrolink to Lamont residents.

The recommended alternative is to extend service to Santa Clarita and reroute the service through Lamont. This alternative also addresses the needs of the El Tejon High School students.

The service plan alternatives analysis further discusses the Americans with Disabilities Act (ADA) requirements as they apply to these services. The Bakersfield-Frazier Park-Santa Clarita services would meet the definition of a commuter bus service and are therefore exempt from Complementary Paratransit requirements. All services will be required to have ADA accessible vehicles in service by January 1997.

Service Marketing

Chapter 6 suggests several marketing strategies such as improved schedule and route information, strong system recognition, signage, "try the ride" incentives, and "peer training" to people with disabilities. These tools should help residents become familiar with the services and comfortable in riding the system. The most critical marketing tool is a comprehensive Kern Regional Transit system brochure. This will allow residents through-out the County to understand the full range of their transit alternatives. The Financial Plans for these services include marketing budgets of 2 to 3% of service provision costs. These recommended levels of marketing funding are in alignment with industry norms.

Alternative Fuels

Kern Regional Transit has begun utilization of alternative fuel CNG vehicles in services around the County. These vehicles have been made available primarily through Air Quality improvement funds (CMAQ). The continued use of alternative fuel vehicles in combination with increased transit service options through the County will contribute to the continued improvement of air quality in the County and its two air quality basins. Chapter 7 discusses the current status of alternative fuels technology and encourages Kern Regional Transit to continue to pursue CNG and clean diesel vehicles, while monitoring changes in this rapidly progressing technology.

Capital Plan

The primary capital need for the Bakersfield-Frazier Park-Santa Clarita and Bakersfield-Lamont services will be replacement vehicles. The vehicle requirements are the same whether the services are combined or remain separate. One replacement 24 seat vehicle will be required in FY 1996/97 and one 24 seat vehicle and one 30 seat bus will be required in 1999/2000. The 1996/97 vehicle has been approved to be funded through a CMAQ grant. CMAQ, and Air Quality District funds should be pursued to fund the replacement vehicles in 1999/2000. The capital plans also include budget proposals for vehicle parts and other capital amenity needs that may arise. These amenities may include replacement radios, child seats, bike racks or computer equipment for service record keeping.

Financial Plan

The Financial Plan (Chapter 9) addresses the five year operating and capital budgets. A major objective of this analysis was to maximize funds for operations and to identify funding sources for capital expenditures.

The Financial Plan presents the operating subsidy requirements separately for each service and the combined total if the services are combined. The operating and capital costs for the recommended Bakersfield-Frazier Park-Santa Clarita via Lamont services totals \$306,000 in FY 1999/2000, the last year of the plan. This will only require an increase in LTF subsidy contribution to these services of .7% to a total of 7.3% of the LTF dedicated to transit in the County. Fare box return on these services is projected at 22% in the out years of the plan. Figures ES-2 and ES-3 outline the five year service operating costs and statistics and the five year financial plans respectively.

The capital requirements would be largely funded by programs including Federal CMAQ and State Remove funds. Matching funds would come from TDA and STAF funds.

Implementation Steps

Figure ES-4 outlines a five year implementation program for the TDP recommendations.

Figure ES-2
Operating Characteristics and Costs

Combined FP-BK-SC and Lamont	FY94/95 EST	FY 1995/96	FY 1996/97*	FY1997/98	FY 1998/99	FY 1999/00
EXPENSES						
Contractor Base Costs (1)	\$147,528	\$147,528	\$177,580	\$193,562	\$199,369	\$205,350
Vehicle/Equip. Maintenance (2)	\$10,500	\$11,025	\$11,356	\$11,696	\$12,047	\$12,409
Fuel(3)	\$10,800	\$11,000	\$12,000	\$12,600	\$13,230	\$13,892
Shelter Maintenance	\$500	\$1,000	\$1,030	\$1,061	\$1,093	\$1,126
Insurance (4)	\$6,102	\$6,102	\$7,345	\$7,565	\$7,792	\$8,026
Marketing	\$500	\$10,000	\$10,300	\$10,609	\$10,927	\$11,255
County Administration (5)	\$17,500	\$18,025	\$18,566	\$19,123	\$19,696	\$20,287
TOTAL COSTS	\$193,430	\$204,680	\$238,177	\$256,217	\$264,155	\$272,344
TOTAL FARES (6)	\$29,920	\$35,750	\$45,000	\$50,400	\$56,400	\$58,200
OPERATING STATISTICS						
Ridership	27,200	32,500	37,500	42,000	47,000	48,500
Vehicle Service Hours	5,400	5,400	6,500	6,500	6,500	6,500
Cost/Passenger (7)	\$6.89	\$6.11	\$6.16	\$5.92	\$5.45	\$5.45
Cost/Service Hour	\$34.69	\$36.77	\$35.51	\$38.25	\$39.44	\$40.66
Passenger/VRH	5.0	6.0	5.8	6.5	7.2	7.5
Farebox Recovery	16.0%	18.0%	19.5%	20.3%	22.0%	22.0%

*Institute Santa Clarita Service-connect through Lamont

(1) Contract through 1996/97 provides \$27.32 per vehicle revenue hour, inflated at 3% in new contract years.

(2) Estimate based on current operating costs excluding contractor, fuel costs and administrative overhead.

(3) Fuel costs based on 1994/95 cost of \$.60 gallon (diesel) x 17,500 gallons (based on 157,000 miles/9 miles per gallon), inflated at 5% annually.

(4) Insurance costs based on contract rate of \$1.13 per vehicle revenue hour, inflated at 3% in new contract years.

(5) County administration based on historic 10% of operating costs, inflated at 3%.

(6) Fare revenue calculated at an average fare collection of \$1.10 per passenger in 1995/96 and \$1.20 per passenger following implementation of the Santa Clarita Service in 1996/97.

(7) Cost/passenger, cost/service hour, & farebox ratio calculated exclusive of insurance.

Figure ES-3
Five-Year Financial Plan

<i>Combined FP-BK-SC and Lamon</i>	FY1994/95	FY1995/96	FY1996/97	FY1997/98	FY1998/99	FY1999/00
EXPENSES						
Operating Cost	\$193,430	\$204,680	\$238,177	\$256,217	\$264,155	\$272,344
Route Analysis TDP	\$25,000	\$0	\$0	\$0	\$0	\$29,000
Vehicle Purchase	\$0	\$0	\$100,000	\$0	\$0	\$250,000
Parts Inventory	\$2,400	\$2,472	\$2,546	\$2,623	\$2,701	\$2,782
Capital Amenities	\$0	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
TOTAL SYSTEM COSTS	\$220,830	\$209,152	\$342,723	\$260,839	\$268,856	\$556,127
REVENUES						
Passenger Fares	\$29,920	\$35,750	\$45,000	\$50,400	\$56,400	\$58,200
FTA Section 26 Planning	\$25,000					\$29,000
LTF (TDA and STAF)	\$165,910	\$173,402	\$209,723	\$210,439	\$212,456	\$248,927
CMAQ Capital			\$88,000			\$220,000
TOTAL REVENUES	\$220,830	\$209,152	\$342,723	\$260,839	\$268,856	\$556,127
<i>% of LTF County Total</i>	6.6%	6.2%	7.4%	7.3%	7.3%	8.5%

Figure ES-4
Implementation Steps

	FISCAL YEAR			
	Year 1 1995/96	Year 2 1996/97	Year 3 1997/98	Years 4 & 5 1998/99, 1999/2000
Service	<ul style="list-style-type: none"> • Increase service frequency between Bakersfield and Frazier Park to meet the needs of the El Tejon High School students 	<ul style="list-style-type: none"> • Implement to service extension to Santa Clarita and reroute the services through Lamont 	<ul style="list-style-type: none"> • Operate the corridor fixed route service 	<ul style="list-style-type: none"> • Operate the corridor fixed route service
Administrative	<ul style="list-style-type: none"> • Fixed route planning <ul style="list-style-type: none"> -Develop final schedule and operating plan -Develop the new service brochures to market the service -Negotiate service contract expansion -Negotiate new stop locations and coordination with Santa Clarita Transit • Include Kern Regional Transit name and Logo on all vehicles and marketing materials 	<ul style="list-style-type: none"> • Monitor system performance, revise as needed • Develop System-wide marketing brochure • Include Logo on all bus stop and other service signage 	<ul style="list-style-type: none"> • Monitor system performance-consider service modification if performance standards not met • Rebid service contract or extend as appropriate 	<ul style="list-style-type: none"> • Monitor system performance • Consider elimination or reduction of service if performance standards continue to not be met

	FISCAL YEAR			
	Year 1 1995/96	Year 2 1996/97	Year 3 1997/98	Years 4 & 5 1998/99, 1999/2000
Capital/ Financial Planning	<ul style="list-style-type: none">• Monitor and complete funding application processes for future year Capital	<ul style="list-style-type: none">• Acquire one new vehicle• Monitor and complete funding application processes for future year Capital	<ul style="list-style-type: none">• Monitor and complete funding application processes for future year Capital	<ul style="list-style-type: none">• Acquire two new vehicles• Monitor and complete funding application processes for future year Capital• Acquire funding for new five year TDP

CHAPTER 1. COUNTY-WIDE SETTING

1.1 OVERVIEW

One of the largest counties in California, Kern County is a microcosm of the state. The county offers diverse geographical features, incorporated city populations ranging from over 200,000 in Bakersfield to about 1,000 in Maricopa, and settles its vast landscape into two different air basins, resulting in varied climates and levels of air quality. Intercity bus service within Kern County travels roads that pass through Kern's flat dry lands, mountain valleys, and woodlands, connecting the growing Bakersfield Metropolitan area with smaller cities in the east and west of the county.

This report includes an analysis of existing conditions for the Frazier Park corridor, including fixed route service between Bakersfield and Frazier Park and Bakersfield and Lamont. The report provides a summary of service throughout Kern County and then focuses on this study corridor.

History

Kern County began to experience a burgeoning of its population following a gold discovery in 1853. The founding of gold also necessitated the establishment of forts to control and facilitate mining activities.

Settlers from nearby counties and cities poured into the vicinity. In 1866, a bill was introduced in the California state legislature to establish Kern County, with the county seat located in Havilah. Havilah's decline, brought about by the demise of the mines and a growing agricultural base in the county, led to moving the county seat to Bakersfield in 1874. By then the city had grown beyond the four buildings that marked its center only five years earlier.

The railroad also arrived in Kern County and spurred the development of the eastern Kern County cities of Mojave and Tehachapi. At the end of the 19th century, the mining industry in eastern Kern County grew rapidly, leading to increased growth in Randsburg and the surrounding areas. In 1952, a dam was built at Kern Gorge to reduce flooding in the valley. The result was safer cultivatable and habitable land, as well as the creation of Lake Isabella.

Population

Kern County's population has been growing steadily as the state's population continues to increase. The 1990 US Census records the population of Kern County at 543, 477. For the year 2010, some population estimates for Kern County exceed one million, suggesting the county is perched to experience extraordinarily rapid growth over the next 15 years. Just over one-half of the county's residents live in 11 incorporated communities. The population living in the unincorporated areas of the county represents 48 percent of

the total, with almost 59 percent of this segment residing in metropolitan Bakersfield's suburban communities. Figure 1-1 lists 1994 estimated population figures for Kern County incorporated communities.

Figure 1-1
1994 Population for Kern County Incorporated Cities

Arvin	10,550
Bakersfield	201,800
California City	8,750
Delano	29,950
Maricopa	1,270
McFarland	7,625
Ridgecrest	29,900
Shafter	11,150
Taft	6,650
Tehachapi	6,775
Wasco	17,800

Source: US Census Bureau Projections

1.2 TRANSPORTATION

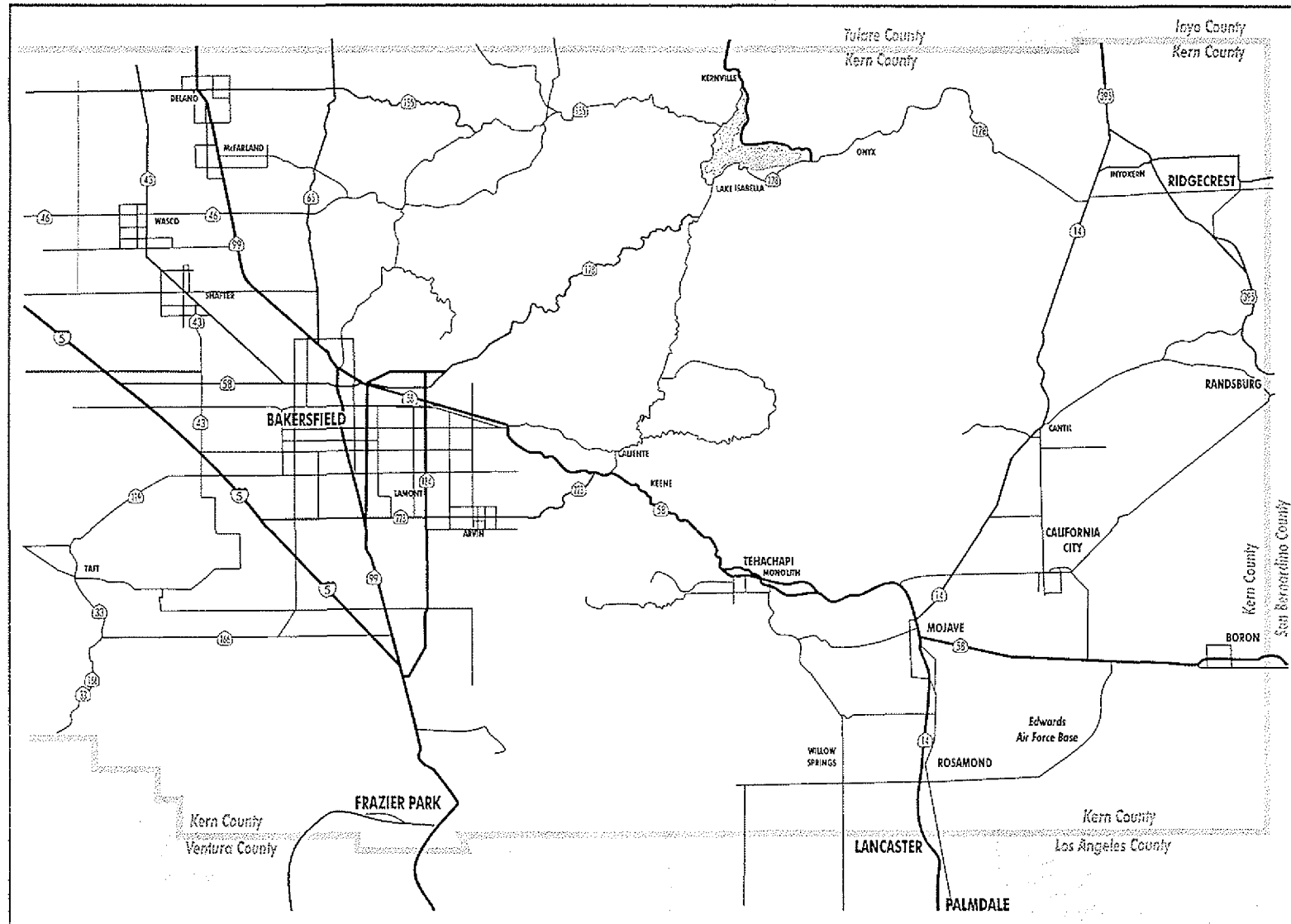
Transportation Network

Kern County's multimodal transportation network is centered at Bakersfield, the county seat. Highway 99 passes through the city, connecting Sacramento and Fresno with Interstate 5 and Los Angeles. Bakersfield is the terminal point of Amtrak rail service from the north and Amtrak bus service from the south and east, is served by Greyhound and Orange Belt bus lines, and is also served by freight rail lines. Meadows Field is a base for commercial and commuter airline flights.

A map of Kern County is presented in Figure 1-2.

Kern Regional Transit provides demand-responsive, fixed route and intercity bus service throughout Kern County, as well as to Northern Los Angeles County, and connects Bakersfield with smaller cities and communities. There are 12 city bus systems which operate Dial-a-Ride and fixed route services in Kern County. The largest of them, Golden Empire Transit (GET) provides local bus service throughout the Bakersfield area.

Figure 1-2
East Kern County



Air Quality

Concern about air quality represents a factor in planning for public transportation. Poor air quality reinforces the need for comprehensive transportation planning that provides for an alternative to automobile dependency.

Kern County rests in the Southeast Desert Air Basin (SEDAB) and the San Joaquin Valley Air Basin (SJVAB), representing two distinct air pollution control districts. The two pollutants of greatest concern to Kern County are carbon monoxide, produced primarily by automobiles and other vehicles, and ozone. Pollutants such as lead and nitrogen dioxide do not represent a major cause for concern in Kern County.

As a result of its topography, climate and proximity to the Los Angeles area, the SEDAB region of Kern County has the propensity for high concentrations of carbon monoxide and high ozone levels. Sandstorms on windy days also are a contributor to air pollution and reduce visibility. Low inversion layers and wind speeds, coupled with cool winter temperatures in the SJVAB portion of Kern County contribute to the region's high concentrations of carbon monoxide. Ozone levels in the SJVAB have also exceeded Federal standards numerous times.

Kern Regional Transit

Organization

Kern Regional Transit is a division of the Kern County Transportation Management Department and is managed by Kern County. It is the County's role to establish service levels and transit needs for the system. Policies are established by the Kern County Board of Supervisors.

The Kern Regional Transit services that are the subject of this planning process are operated by a contractor, Larson Transportation Services, Inc. The Department of Transportation Equipment Maintenance Facility in Bakersfield is used for maintenance activities on the vehicles and the vehicles are stored and dispatched from the Larson Operations facility. Additional road equipment yards in Mojave and Kernville also serve the transit system.

1.3 EXISTING SERVICES

Kern Regional Transit provides fixed route and demand-response service in Kern County, up to six days per week. Fixed routes run on different schedules and frequencies, from two days per week to several times over six days. The focus of this report is on existing and potential intercity bus service areas that are served by Kern Regional Transit from Bakersfield to the cities of Frazier Park and Lamont.

More complete summaries of the service provided by Kern Regional Transit in this corridor follows in the next chapters. Below is a description of all of the services provided by the system and the fare structure.

1.3.1 Fixed Routes Service

Bakersfield to Frazier Park

Bus service from Bakersfield to Frazier Park runs three round trips daily, six days a week, leaving Frazier Park for Bakersfield at 8:00 am and 10:35 am and 1:40 pm and returning from Bakersfield at 10:35 am, 1:40 pm and 5:05 pm. Bus stops in Bakersfield afford access to the major transit connection locations, including the Greyhound station, airport, and GET transfer center and all medical facilities on a request basis.

Bakersfield to Lamont

Service between Bakersfield and Lamont is provided six times in each direction Monday through Saturday, facilitating connections from Kern Regional Transit to operators making stops at the GET transfer center and the Greyhound Bus Station. Other stops are made at the Kern Medical Center, East Hills Mall, Niles Plaza, at Redbank and Weedpatch Highway, Lamont-County Fair Market, and Weedpatch Market.

Bakersfield and the Kern River Valley

Kern Regional Transit buses depart Lake Isabella for Bakersfield three times daily, and arrive three times, Monday through Saturday. The route provides for a timed transfer at Veterans Hall in Lake Isabella for routes serving the Kern River Valley.

Kern River Valley Routes

Fixed route service in the Kern River Valley is available Monday through Saturday, providing service throughout the Lake area to Lake Isabella, Bodfish, Mountain Mesa, Southlake, Weldon, Onyx, Wofford Heights and Kernville.

East Kern County: California City to Palmdale

Fixed route service is provided between California City and Palmdale, in Los Angeles County. Service includes stops in Mojave, Rosamond, and Lancaster. The service makes three scheduled round trips, beginning at 7:00 am in California City and completing the final run at 6:00 pm.

Tehachapi-Mojave

Fixed route service between Tehachapi and Mojave was begun in February 1995 with six round trips a day, five days a week. Service departs Tehachapi at 6:45 am, 8:20 am, 9:50 am, 1:30 pm, 3:05 pm and 4:35 pm, arriving in Mojave approximately 55 minutes

later. The service departs Mojave for Tehachapi at 7:20 am, 8:55 am, 10:25 am, 2:05 pm, 3:40 pm and 5:05 pm, arriving in Tehachapi approximately 55 minutes later.

Westside Express

Fixed route service between Taft and Bakersfield was begun in January, 1995. Five round trips per day, Monday through Friday, are provided. Service departs Bakersfield at 5:30 am, 6:15 am, 8:10 am, 2:35 pm and 3:35 pm and departures from Taft are scheduled at 7:00 am, 7:45 am, 9:25 am, 4:15 pm and 5:15 pm.

1.3.2 Fares

Different fares are assessed on the various fixed routes operated by Kern Regional Transit. The matrix presented in Figure 1-3 lists the fares for each of the routes.

1.4 DIAL-A-RIDE SERVICES

Frazier Park Dial-a-Ride

A curb-to-curb demand-responsive general public transportation service is available in the Frazier Park area. The service is provided six days a week, Monday through Saturday. The service area includes Lake of the Woods and Pinion Pines to the west and Lebec in the east.

Lamont Dial-a-Ride

General public demand-responsive service is available Monday through Saturday for individuals traveling within Lamont.

Rosamond Dial-a-Ride

A general public curb to curb Dial-a-Ride service is available Monday through Saturday in the Rosamond area. The service is designed to connect with Kern Regional Transit's East Kern County Route.

Mojave Dial-a-Ride

General public curb-to-curb Dial-a-Ride service is available Monday through Saturday in the Mojave area. This service connects with the East Kern fixed route service.

Kern River Dial-a-Ride

Dial-a-Ride service is provided in the local area around Lake Isabella including the corridors between Lake Isabella and Onyx, and Lake Isabella and Kernville Monday through Saturday. This service connects with the Kern River Valley Service to Bakersfield.

Figure 1-3
Fixed Route Fares

Route/Service	Fares			
	General	Seniors	Disabled	Youth
Bakersfield-Frazier Park	3.50	1.75	1.75	1.75
Bakersfield-Lake Isabella	2.75	1.75	1.75	1.75
Bakersfield-Lamont	1.25	.75	.75	.75
East Kern: California City-Mojave Mojave-Rosamond Rosamond-Lancaster	1.00	.50	.50	.50
Rosamond-Palmdale	1.50	.75	.75	.75
California City-Rosamond Mojave-Lancaster	2.00	1.00	1.00	1.00
Palmdale-Mojave	2.50	1.25	1.25	1.25
California City-Lancaster	3.00	1.50	1.50	1.50
California City-Palmdale	3.50	1.75	1.75	1.75
Tehachapi Mojave	1.50	.75	.75	.75
Kern River Valley: within one zone	.75	.50	.50	.50
between two zones	1.50	1.00	1.00	1.00
between three zones	2.25	1.50	1.50	1.50
Westside Express	2.00	2.00	2.00	2.00

1.4.1 Dial-a-Ride Reservations

Reservations are required at least one day in advance of the requested trip in order to guarantee service by the Dial-a-Ride. Individuals may call the day of the requested ride but cannot be assured the service will be available to them. A toll-free number is available for reservation requests.

1.4.2 Dial-a-Ride Fares

Fares for Dial-a-Ride services within individual communities and zones comprised of smaller communities are no more than \$0.75 in any of the areas in which Kern Regional Transit provides the service. Figure 1-4 presents Dial-a-Ride fares for Kern Regional Transit.

Figure 1-4
Dial-a-Ride Fares

Route/Service	Fares			
	General	Seniors	Disabled	Youth
Frazier Park Dial-a-Ride	.75	.50	.50	.50
Kern River Valley Dial-a-Ride				
within one zone	.75	.50	.50	.50
between two zones	1.50	1.00	1.00	1.00
between three zones	2.25	1.50	1.50	1.50
Lamont Dial-a-Ride	.75	.50	.50	.50
Mojave	.75	.50	.50	.50
Rosamond Dial-a-Ride	.75	.50	.50	.50

1.5 FLEET

The Kern Regional Transit fleet includes approximately 31 vehicles, including buses, vans and minibuses. Kern Regional Transit has buses that operate on gasoline, diesel fuel, and compressed natural gas. During FY 1994/1995, Kern Regional Transit is replacing its rental fleet with new buses owned by the system. Although much of the replacement has already occurred, the precise size of the fleet varies as new buses are arriving or are on order. The table in Figure 1-5 lists the vehicles that comprise the system's fleet. Only a portion of the vehicles in this fleet are used in the services to eastern and southern Kern County.

Figure 1-5
Vehicle Fleet

Vehicle		Number in Fleet	Capacity	Type	Fuel
Year	Make				
95*	El Dorado	6	27	bus	compressed natural gas
95*	El Dorado	6	18	minibus	diesel
95*	Supreme Senator	1	27	bus	diesel
94	El Dorado	4	16	minibus	diesel
94	El Dorado	3	27	bus	compressed natural gas
94	Startrans	1	22	minibus	gasoline
93	Diamond	2	27	bus	diesel
93	Allen Ashley	2	11	van	gasoline
93	El Dorado	2	16	minibus	diesel
92	Diamond	1	27	bus	diesel
90*	National	3	18	minibus	gasoline
86 ^{††}	National	7	18	minibus	diesel

*New vehicle to replace outgoing vehicle.

^{††}Rental vehicles to be replaced by new vehicles as they arrive.

1.6 SYSTEM EXPANSION

Kern Regional Transit expanded certain services during FY 1993/1994 within the study area. The three areas of service that were expanded were:

- (1) Dial-a-Ride service in the Rosamond area, expanded to six days per week;
- (2) Dial-a-Ride service in the Lamont area; and
- (3) Fixed route service between Lamont and Bakersfield, with the addition of a second bus.

These expansions resulted in additional revenue vehicle hours and revenue vehicle miles for the system. These expansions also affect ridership statistics for comparisons based on previous years.

1.7 SYSTEM-WIDE PERFORMANCE

An increase in passengers and operating costs for FY 1993/1994 can be attributed, in part, to the expansion of some Dial-a-Ride services and fixed route services, and the resulting increase in revenue vehicle miles. Refer to Figures 1-6 and 1-7 for a summary table of system performance measures. Total system passengers rose almost 35 percent between FY 1992/1993 and FY 1993/1994. While operating costs also grew, the increase was lower than the passenger expansion, with almost an 11 percent increase. The result is that the cost to the system per passenger decreased from \$7.84 to \$7.31.

Revenue vehicle hours in FY 1993/1994 represented a 22.7 percent increase over the previous year. The major portion of this increase was in Dial-a-Ride services. Even more notable, the increase in revenue vehicle miles for the Dial-a-Ride service was 76 percent more than that of FY 1992/1993. This is linked to the rural nature of the services.

The average passenger fare remained at \$0.77 for both fiscal years. This includes the fare assessed in all fare categories for both fixed route and Dial-a-Ride services operated by Kern Regional Transit. Performance statistics for each of the routes in the study corridors are provided in the following chapters.

Figure 1-6
System-wide Operating Performance

	FY 92/93	FY 93/94	% Change
Passengers			
System-wide	160,454	216,164	+34.7%
Fixed Route	62,039	81,585	+31.5%
Dial-a-Ride	98,415	134,579	+36.7%
Total Operating Costs⁽¹⁾			
System-wide	\$1,257,721	\$1,579,982	+25.1%
Revenue Vehicle Hours			
System-wide	34,950	42,911	+22.7%
Fixed Route	17,026	19,754	+16.0%
Dial-a-Ride	17,280	23,157	+34.0%
Revenue Vehicle Miles			
System-wide	658,622	892,632	+35.5%
Fixed Route	469,824	560,229	+19.2%
Dial-a-Ride	188,798	332,403	+76.1%

⁽¹⁾ Fully loaded operating costs including all administration, direct operations, insurance and marketing

Figure 1-7
System Performance Measures FY 92/93 and 93/94

	FY92/93	FY93/94
Passengers/Revenue Vehicle Hour		
System-wide	4.6	5.0
Fixed Route	3.6	4.1
Dial-A-Ride	5.7	5.8
Passengers/Revenue Vehicle Mile		
System-wide	0.2	0.2
Fixed Route	0.1	0.1
Dial-A-Ride	0.5	0.4
Farebox Recovery Ratio		
System-wide	13.2	16.0
Passenger Average Fare		
System-wide	\$0.77	\$0.77
Cost/Passenger		
System-wide	\$7.84	\$7.31
Cost/Revenue Vehicle Hour		
System-wide	\$35.99	\$36.82

1.8 OTHER KERN COUNTY TRANSIT OPERATORS

Kern County has 12 other transit operators that receive TDA funds. Most are small and are managed by the cities whose populations they serve. All of them provide demand-responsive service. Some systems also provide intercity or fixed route services. Following are brief descriptions of each of these operators.

Arvin Transit

Arvin Transit is a general public transit service, providing twice daily weekday service within Arvin and service to Bakersfield. A two-hour Dial-a-Ride service affords passengers four scheduled trips per day between Arvin and Lamont. The County Fair Market stop in Lamont is served by both Arvin Transit and Kern Regional Transit, although the schedule does not accommodate timed transfers.

California City Transit

California City Transit provides a general public demand-responsive service in the California City area. The system also provides connections with Kern Regional Transit service for travel to Mojave, Rosamond, Lancaster, and Palmdale.

Consolidated Transportation Services Agency (CTSA)

Elderly and disabled persons have an alternative transportation system available for them, providing demand responsive service within Metropolitan Bakersfield. The fare is \$.25 for this service which operates weekdays.

Delano Transit

Delano Transit is scheduled to initiate fixed route service in March 1995. Presently, the system operates a general public demand-responsive service within the greater Delano area. The service is available seven days a week. Medical van service is also available daily between Delano and Bakersfield.

Golden Empire Transit (GET)

GET provides service Monday through Saturday on 14 routes in the Bakersfield Metropolitan Area. Get-A-Lift is provided by the system for individuals who are unable to be accommodated on the fixed routes due to a physical disability. The GET downtown transit center serves as a transfer location for individuals using both GET buses and some Kern Regional Transit routes.

Buttonwillow Transit

Buttonwillow provides service between Bakersfield and Buttonwillow, with two trips a day on Tuesdays and Thursdays.

McFarland Transit

McFarland Transit provides a general public Dial-a-Ride service Monday through Thursday. The transit system also provides Friday service which is limited to senior lunch program trips. The system is curb-to-curb within the City of McFarland.

Ridgecrest Transit

Dial-a-Ride service is provided Monday through Saturday in Ridgecrest by Ridgecrest Transit. The service is available for the general public. Intercity service to Randsburg and Inyokern is provided by request.

Shafter Transit

Shafter Transit provides a general public demand-responsive service operating weekdays within the City of Shafter and outlying areas.

Taft Area Transit

Taft Area Transit provides weekday demand responsive service in the greater Taft area with additional limited fixed route service Tuesday and Thursday to McKittrick, Fellows, and Derby Acres.

Tehachapi Transit

Tehachapi Transit provides a general public transit demand-responsive service for the general Tehachapi area. The service is available Monday through Friday.

Wasco Transit

Providing general Dial-a-Ride service for the general public within the City of Wasco. Wasco Transit also has scheduled service two days each week to Shafter and Bakersfield.

1.9 OTHER TRANSPORTATION SERVICES

Air

Meadows Field Airport

From Bakersfield's Meadows Field, passengers may travel via commercial airlines to several California cities and other nearby regional cities such as Las Vegas. The four airlines providing service in and out of Bakersfield are Delta, American, United and Air LA.

Public transportation service is provided by GET, with Route 3 running between the Airport and downtown. Several private limousine and taxicab companies also provide service to Meadows Field.

Bus

Airport Bus of Bakersfield

Airport Bus of Bakersfield operates private bus service from Bakersfield to Los Angeles International Airport (LAX). Seven round trips are made each day, with the first bus leaving Bakersfield at 4:00 am and the final bus departing LAX at 12:30 am. The service, available every day, is \$25 for a one-way ticket and \$40 round trip. Buses seat up to 47 passengers.

Antelope Valley Transit Authority (AVTA)

AVTA provides frequent bus service throughout the Palmdale and Lancaster areas. Individuals requiring public transportation connections to systems other than Metrolink and Santa Clarita Transit are best served locally by AVTA. Kern Regional Transit patrons can transfer easily between the two systems at the Antelope Valley Mall transfer site.

Greyhound

Greyhound provides fairly extensive service throughout California from Bakersfield. By transferring between buses, passengers can travel up and down the California coast and throughout the continental United States. Direct service, requiring no change of buses, is available to all major California cities, including San Francisco, Oakland, Sacramento, Fresno, and San Diego. Service between Bakersfield and Los Angeles is very frequent. On a typical weekday, thirteen buses depart Bakersfield for Los Angeles beginning at 1:15 am and continuing through 11:15 pm. The fare for this service is \$14.00 for a one-way trip and \$25.00 for a round trip.

The Greyhound Bus Station is served by GET buses as well as several Kern Regional Transit intercity routes.

Orange Belt Stages

Orange Belt Stages serves Bakersfield along two routes in Kern County. The first route heads directly north into Tulare County from Bakersfield to Porterville via Ducor and Terra Bella. From Porterville, the bus continues to Visalia. The second route connects Bakersfield with eastern Kern County, with stops in Tehachapi, California City, and Mojave. From Mojave, service is available on one route to Rosamond, Lancaster and Palmdale; on another route Orange Belt serves Boron before leaving Kern County for Barstow in San Bernadino County.

Rail

Amtrak

Amtrak's San Joaquin line provides direct service between Bakersfield and Oakland (Emeryville Station). Daily southbound trains arrive in Bakersfield at 1:20 pm, 4:55 pm, 7:25 pm, and 11:20 pm. Connecting Amtrak bus service is available from Bakersfield, arriving in Los Angeles two and one-half hours later. Dedicated Amtrak buses also provide service to Pasadena and Burbank, Los Angeles International Airport, San Bernardino/Palm Springs, and the east Kern County Destinations of Tehachapi, California City, Boron, Mojave, and Rosamond (with continuing service to Lancaster and Palmdale).

Amtrak's thruway service is available **only** for passengers arriving by train in Bakersfield who must make a connection to any of the destinations served by bus. Passengers boarding in Bakersfield are not permitted to board Amtrak buses for any of the carrier's destinations unless they are ticketed for continuing service by train. Amtrak contracts some of its bus service to other carriers, including Orange Belt Stages.

Metrolink Connection: Los Angeles and Lancaster/Palmdale

Metrolink trains leave Lancaster for Los Angeles on the Santa Clarita line beginning as early as 4:37 am weekdays, providing direct service several times each the day. At hours when Metrolink service is not provided to or from Lancaster (the terminus for some runs is at Santa Clarita), Santa Clarita Transit Route 795 provides bus service to both the Lancaster Park and Ride and the Lancaster Metrolink Station, as well as Antelope Valley Mall in Palmdale. The bus departs for Santa Clarita seven times daily.

Social Service Transportation Providers in Bakersfield

Some social service agencies provide their own transportation services for clients and other individuals served by their agencies. In Bakersfield, there are two major providers of transportation services. The services are generally limited to the Bakersfield area and serve populations residing in the Bakersfield area.

Bakersfield Senior Center

Bakersfield Senior Center sponsors many programs for the elderly in the metropolitan Bakersfield area. The center operates a transportation program Monday through Friday to provide pick-up service for its clients. The majority of the trips are to and from the Senior Center, although trips for personal errands and scheduled shopping trips are also available. The service is provided between 8:00 am and 4:30 pm. Clients are required to make a reservation one day prior to their trip. Additional services are provided by the transportation program for individuals in the Bakersfield area who are unable to use other transportation services due to a physical disability.

North Bakersfield Recreation and Park District

North Bakersfield Recreation and Park provides door-to-door transportation services for disabled and elderly clients throughout the Metropolitan Bakersfield area. Trips are primarily made for medical appointments, senior center and social service agency day programs, and other personal matters.

CHAPTER 2. BAKERSFIELD-FRAZIER PARK CORRIDOR

2.1 OVERVIEW

This study corridor focuses on providing transit services to the communities in central, southern Kern County. The cities and communities in this area include two existing transit corridors — between Bakersfield and Lamont including Weedpatch, and between Bakersfield and Frazier Park. The city of Arvin is also included in this study area. The small communities of Mettler Station, Wheeler Ridge, Grapevine, and Lebec, as well as southern Bakersfield suburbs, are also in this region. The map in Figure 2-1 illustrates the major communities in this area and the roads that connect them.

Bakersfield

Bakersfield, the largest city in Kern County, is located at the southern end of the San Joaquin Valley. Bakersfield boasts many residential communities, shopping areas, and is an employment center for farm products as well as the natural gas and oil industry.

Data for Kern County is presented by census tract and city. Bakersfield had a 1990 working age population of 125,206. Sixty-seven percent of this population was in the labor force. The primary employment industries for residents of Bakersfield in 1990 were in professional and related services and wholesale and retail trade (24 percent each).

Typically, some of the most transit dependent populations are those age five to 18-years old and individuals over 65. In Bakersfield, these populations represent 22 percent and nine percent, respectively. These proportions are similar to those of other communities in the corridor and are depicted in Figures 2-2 and 2-3.

An indication of transit dependency is income. The greatest variation among census tracts in this corridor is the range of household income and the percentage of the population living below the poverty level. The median household income of Bakersfield residents was \$32,154. Census tracts including and surrounding Lamont (62 and 64), as well as nearby Arvin (63) had populations with median household incomes in the low to middle \$20,000 range. This suggests a potential in the Lamont Area for a more transit-dependent population when other facts are considered. In tract 32.01, the large tract southwest of Bakersfield, the median household income is nearly \$45,000. Further to the south, west of Highway 99, the median household population is in the middle \$30,000 range.

Seventeen percent of Bakersfield's 1990 population lived below the poverty level. This appears low when compared to Lamont's 27 percent, but is high in comparison with communities in the tract that includes Frazier Park, where the poverty level was about seven percent.

Figure 2-1
Bakersfield to Frazier Park

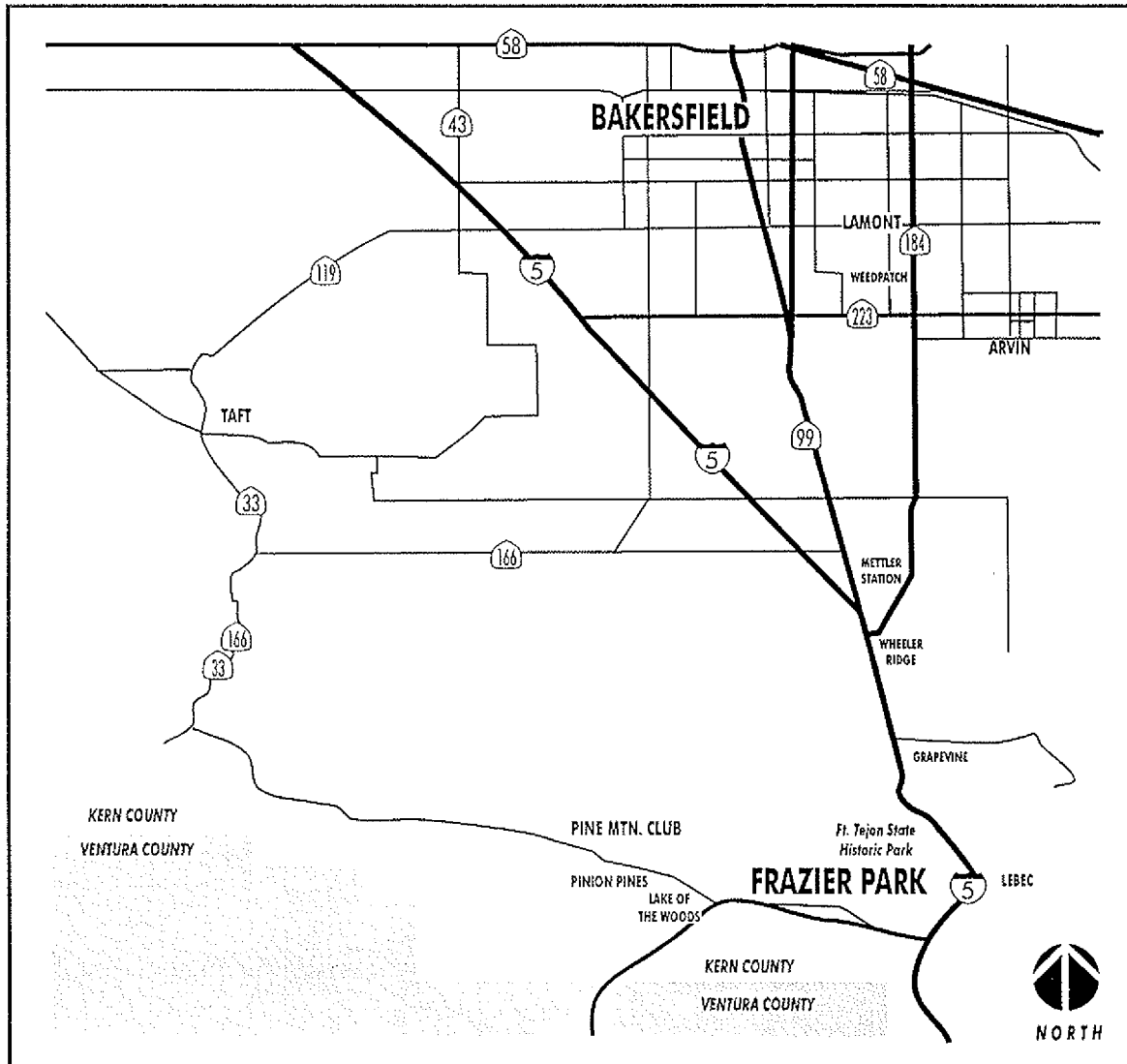


Figure 2-2
Residents 5 to 18

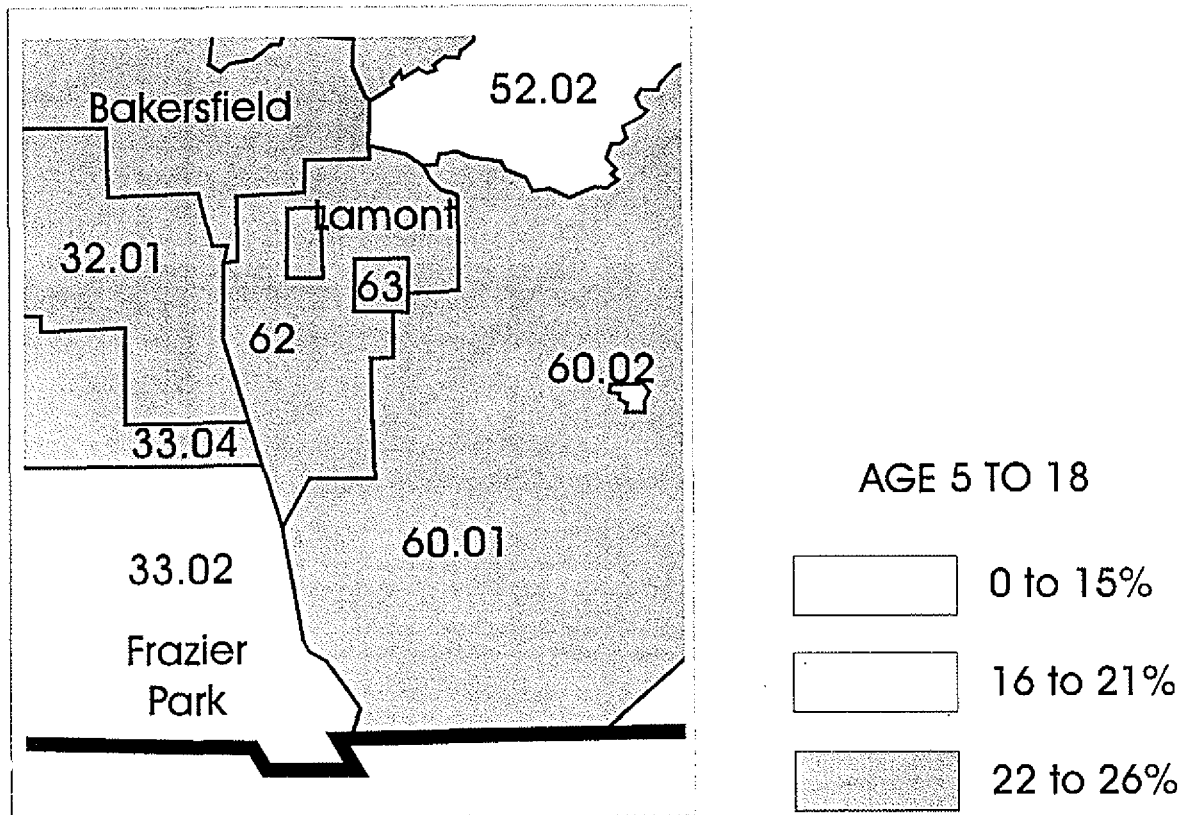


Figure 2-3
Residents Over 65

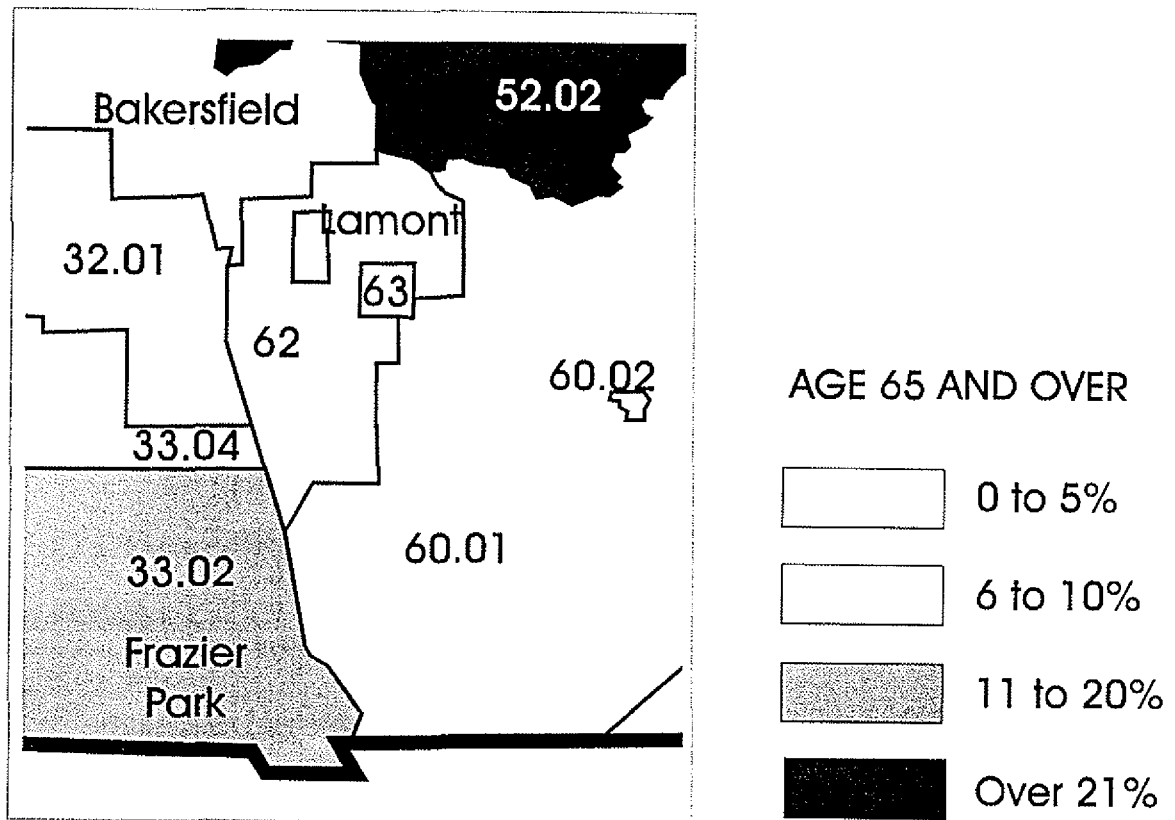


Figure 2-4 illustrates the 1990 variation in poverty status in the census tracts that include these and surrounding communities. Figure 2-5 presents information on the proportion of residents with mobility limitations — an indicator of potential users of a demand-responsive system and accessible fixed route systems.

2.2 EXISTING TRANSIT SERVICES

Two public transportation providers serve the communities in this corridor. Intercity service operated by Kern Regional Transit is available between Bakersfield and Frazier Park six days each week (prior to March 1 service to Frazier Park was only two days per week) and between Lamont and Bakersfield six days each week. Kern Regional Transit provides demand-responsive service six days per week in Frazier Park and six days in Lamont. Scheduled service between Arvin and Bakersfield and demand responsive intercity service between Lamont and Arvin is operated weekdays by Arvin Transit. Local Dial-a-Ride service is also provided within the city of Arvin on weekdays. This range of services affords passengers the opportunity to travel between cities in this part of Kern County using different routes on two transit systems. Following is a summary of public transportation services within the study corridor.

Kern Regional Transit

Bakersfield to Frazier Park

Monday through Saturday Service between Bakersfield and Frazier Park is available two times per day, on the following schedule:
8:00am, 10:45am and 1:40pm - Departs Frazier Park for Bakersfield
9:50am, 12:55pm and 4:20pm - Departs Bakersfield for Frazier Park

Bakersfield to Lamont

Monday through Saturday Six runs per day operate in each direction between Weedpatch Market and the Bakersfield Greyhound bus terminal. Stops include the Lamont-County Fair Market, Redbank and Weedpatch Hwy., Fairfax and Redbank, Niles Plaza, East Hills Mall, Kern Medical Center, and the GET downtown transit center. The first run departs Lamont at 6:30 am and the final run returns to Weedpatch Market at 6:00 pm.

Frazier Park Dial-a-Ride

Monday through Saturday The Dial-a-Ride service area includes Frazier Park and Lebec, as well as the communities of Lake of the Woods and Pinion Pines. The service is available 8:00 am to 5:00 pm.

Figure 2-4
Residents Below Poverty Level

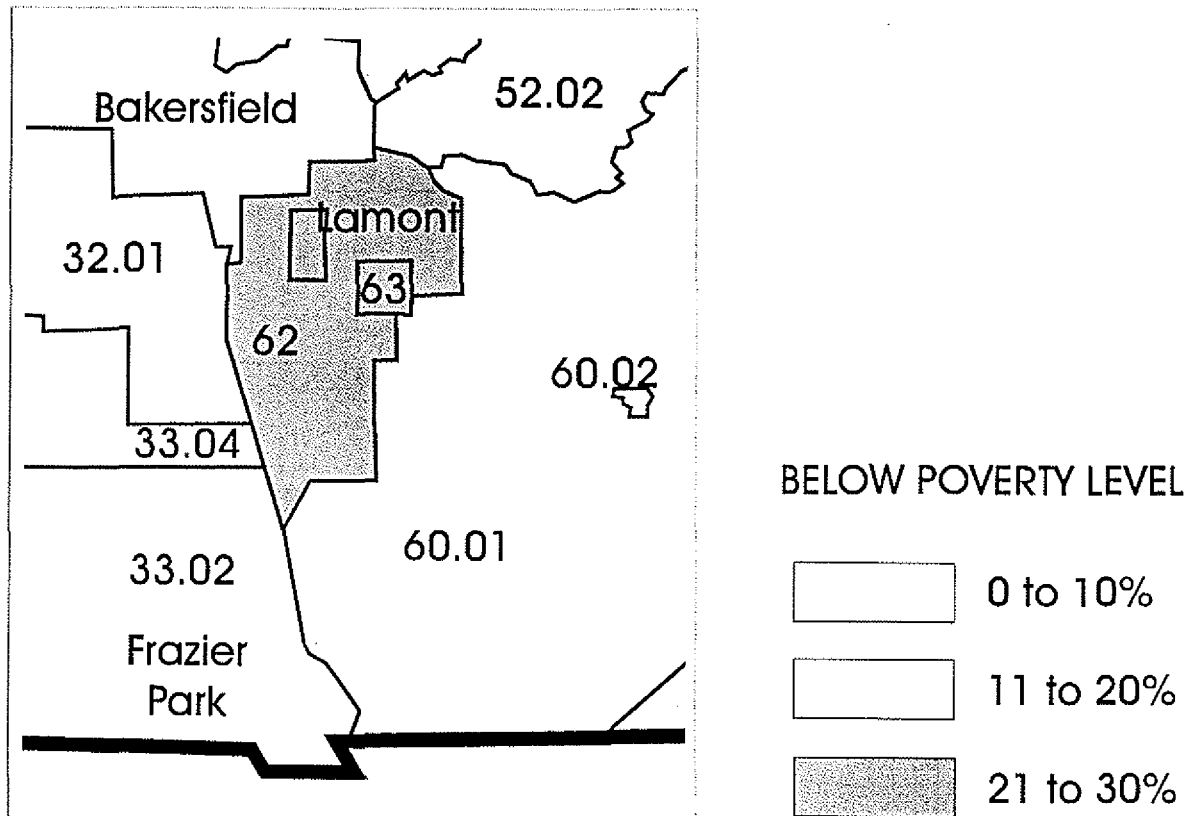
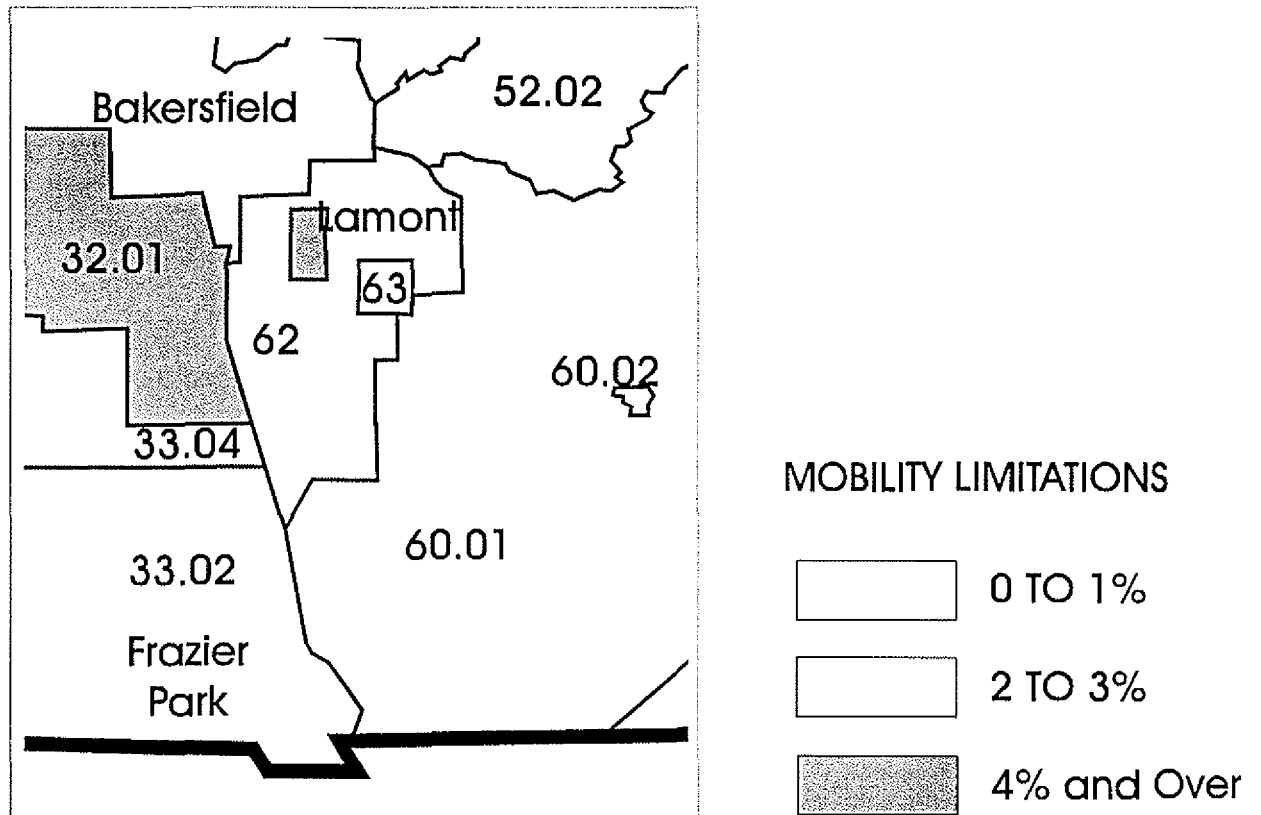


Figure 2-5
Residents With Mobility Limitations



Lamont Dial-a-Ride

Monday through Saturday The Dial-a-Ride serves the general Lamont community between 6:00 am and 6:30 pm. The service area is bounded by Mountain View to the north, Vineland to the east, Vista Boulevard to the south, and Fairfax Road to the West.

Arvin Transit

Arvin to Lamont

Monday through Friday Four trips are provided each day to Lamont making stops at bakeries, stores and markets, as well as Sierra Vista Clinic and the welfare office. Trips required Dial-a-Ride reservations. Departures from Arvin are scheduled for 8:00 am, 10:30 am, 1:00 pm, and 2:30 pm.

Arvin to Bakersfield

Monday through Friday Two buses depart for Bakersfield each day. The first departs Walnut and Durham at 7:10 am and then stops at East Hills Mall at 7:55 am. In the afternoon, a 1:50 pm stop at Walnut and Durham arrives in Bakersfield at the Greyhound bus terminal at 2:35 pm. Other scheduled stops are made within Arvin and Bakersfield.

Dial-a-Ride

Monday through Friday Demand responsive service is available between 7:30 am and 3:00 pm.

2.3 SYSTEM PERFORMANCE

Service to Frazier Park was initiated by Kern Regional Transit in March 1993. Since its introduction, monthly ridership on the Bakersfield-Frazier Park route increased from about 30 riders to a peak of almost 130 riders in June 1993. Ridership decreases were most apparent during the fall and spring months. Lamont-Bakersfield ridership, which has grown steadily since 1985, took a leap during FY 1993/1994 to 21,579 riders, almost a 70 percent increase over the previous year.

Figure 2-6 provides system performance statistics for FY 1993/1994 for the four services provided by Kern Regional Transit in this corridor. The two routes that serve Lamont boast reasonably low costs per passenger for the service. The Frazier Park routes have high per passenger costs, especially on the intercity route, where the cost averages to \$30.07. Productivity on the Lamont routes was almost nine passengers per revenue vehicle hour, while the fixed Bakersfield-Frazier Park route was just over one passenger.

Figure 2-6
Service Operating Statistics for 1993/94

	Bakersfield- Frazier Park	Bakersfield- Lamont	Frazier Park Dial-a-Ride	Lamont Dial-a-Ride
Annual Passengers	910	21,579	2,638	21,956
Annual Operating Costs¹	\$24,180.00	\$99,151.00	\$38,922.00	\$90,684.00
Annual Revenue Vehicle Hours	808	2,485	1,256	2,472
Annual Revenue Vehicle Miles	24,013	78,132	17,120	46,001
Passengers/Revenue Vehicle Hour	1.13	8.68	2.10	8.88
Passengers/Revenue Vehicle Mile	0.04	0.28	0.15	0.48
Farebox Recovery Ratio	7.43%	20.91%	2.78%	10.14%
Passenger Avg. Fare	\$1.97	\$0.96	\$0.41	\$0.42
Cost/Passenger	\$30.07	\$5.05	\$16.63	\$5.25
Cost/Revenue Vehicle Hours	\$33.87	\$43.84	\$34.93	\$46.63

¹Excludes vehicle depreciation, vehicle lease, vehicle liability and casualty, and all service extension costs.

The farebox recovery ratio for the Bakersfield-Lamont service was the strongest, at 21 percent. The lowest farebox recovery ratio among the four routes was for the Frazier Park Dial-a-Ride service (2.78 percent).

2.4 ON-BOARD SURVEY

A survey of riders allows for the assessment of rider opinions, as well as origin-destination information and an understanding of the value of the services provided by the transit system. An on-board survey of the two Kern Regional Transit fixed route intercity services in the corridor was conducted over a two-day period. Drivers distributed surveys as passengers boarded and collected completed forms before the passengers alighted. Passengers were instructed to complete only one survey form over the survey period. Distinct survey forms were developed for passengers on the Bakersfield-Lamont service and passengers on the Bakersfield-Frazier Park service. Survey forms were printed in English on one side and Spanish on the reverse to account for the primary languages spoken in the region. All passengers able to read and write were eligible to complete the survey. The survey forms are presented in Appendix A.

Following are summarized results of each of the two surveys that were distributed.

2.4.1 Bakersfield-Lamont

Eighty-two surveys were completed by riders. One-third of surveys were completed in Spanish, representing the highest proportion of completed surveys in Spanish of the Kern Regional Transit fixed routes surveyed.

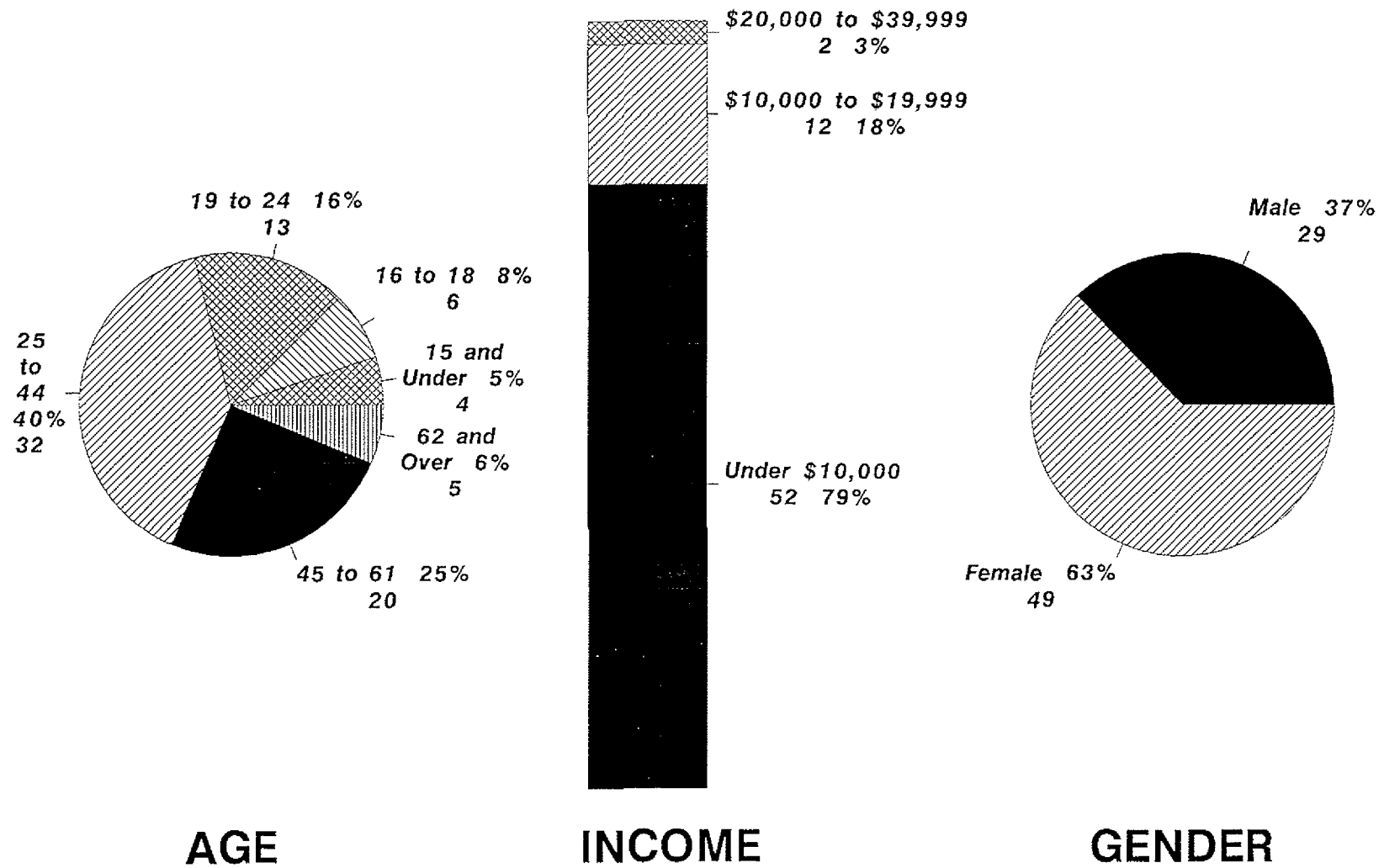
Rider Demographics

Forty percent of the riders were between the ages of 25 and 44, with this category representing the median rider age. Approximately another one-third of riders were older, but only six percent of the total ridership was over 62 years old. Likewise only five percent of the riders were 15 years old and under.

Income ranges are less varied. Fully 79 percent of riders indicated incomes under \$10,000. This is particularly low considering the high proportion of riders in the working-age population. Eighteen percent of riders noted incomes between \$10,000 and \$20,000.

Overall, riders were predominantly female (63 percent). Of the riders who completed the survey in Spanish — 26 total — the majority (14) were male. The graphs in Figure 2-7 illustrate the basic demographic survey results.

Figure 2-7
Bakersfield-Lamont On-Board Survey Rider Demographics



Trip Purpose

Riders were asked to mark the main purpose of their bus trip. They selected from five options printed on the survey form. Trips for medical or dental appointments represent the highest proportion of responses (31 percent). Following closely are personal and shopping trips (30 percent). Work trips represent only 14 percent of total trips. Of trips in the "other" category (12 percent), trips to the social security office account for 40 percent. Considering the distribution of the ages of the riders, it is reasonable that school trips account for only 14 percent of the total. Schools that were listed on the survey forms by respondents include the Bakersfield Adult School, Bakersfield College, Ramon Garza School and a beauty college.

Paired trip origins and destinations result in an origin-destination matrix with the highest concentration of trips made between Lamont and Bakersfield (Figure 2-8), 57 percent. The number of trips between Bakersfield and Weedpatch (between Bakersfield and Lamont) is also notable. The service was used for only two trips between Lamont and Weedpatch. A handful of trips were made using the service entirely within Bakersfield and within Lamont.

Transit Use

The route enjoys a loyal following of regular passengers. When asked how often they use the Bakersfield-Lamont intercity bus service, eighty percent of the respondents indicated they ride regularly — two or more days each week. The most frequent riders, those who use the service five or more days each week, represent 27 percent of the respondents. One-fifth of riders use the service fewer than four days each month. These responses are presented in Figure 2-9. It should be noted that one reason the route has such high levels of regular passengers is that many individuals have no other transportation options for their trip. Eighty-five percent of respondents indicated that there was not a car available to them for the particular trip they were taking. This may be among the strongest indicators of transit dependency for this particular route. Paired with healthy ridership levels, high passengers per vehicle revenue hour and strong farebox recovery, transit dependency points to the viability of the service.

A large majority of riders used the system for both directions of their trip. Ninety-two percent would return on the bus. A high percentage of riders (67 percent) indicated that they transfer to other bus systems in order to complete their trip. Respondents marked boxes on the survey form for the various systems to which they regularly make transfers. Figure 2-10 shows the number of respondents noting each of the systems to which they make a transfer. The GET system in Bakersfield was the most common response.

Figure 2-8
Paired Origins and Destinations

	Bakersfield	Weedpatch	Lamont	Arvin
Bakersfield	5	17	45	0
Weedpatch		0	2	0
Lamont			8	1
Arvin				0

Figure 2-9
Frequency of Transit Use

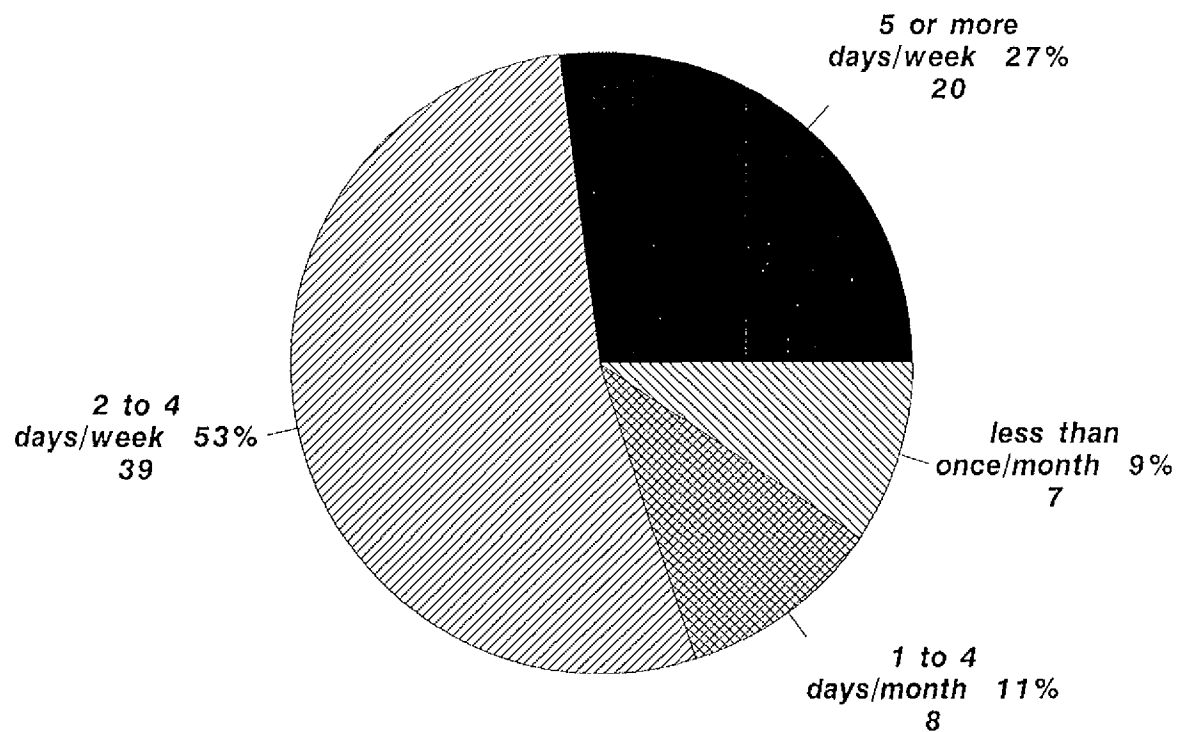
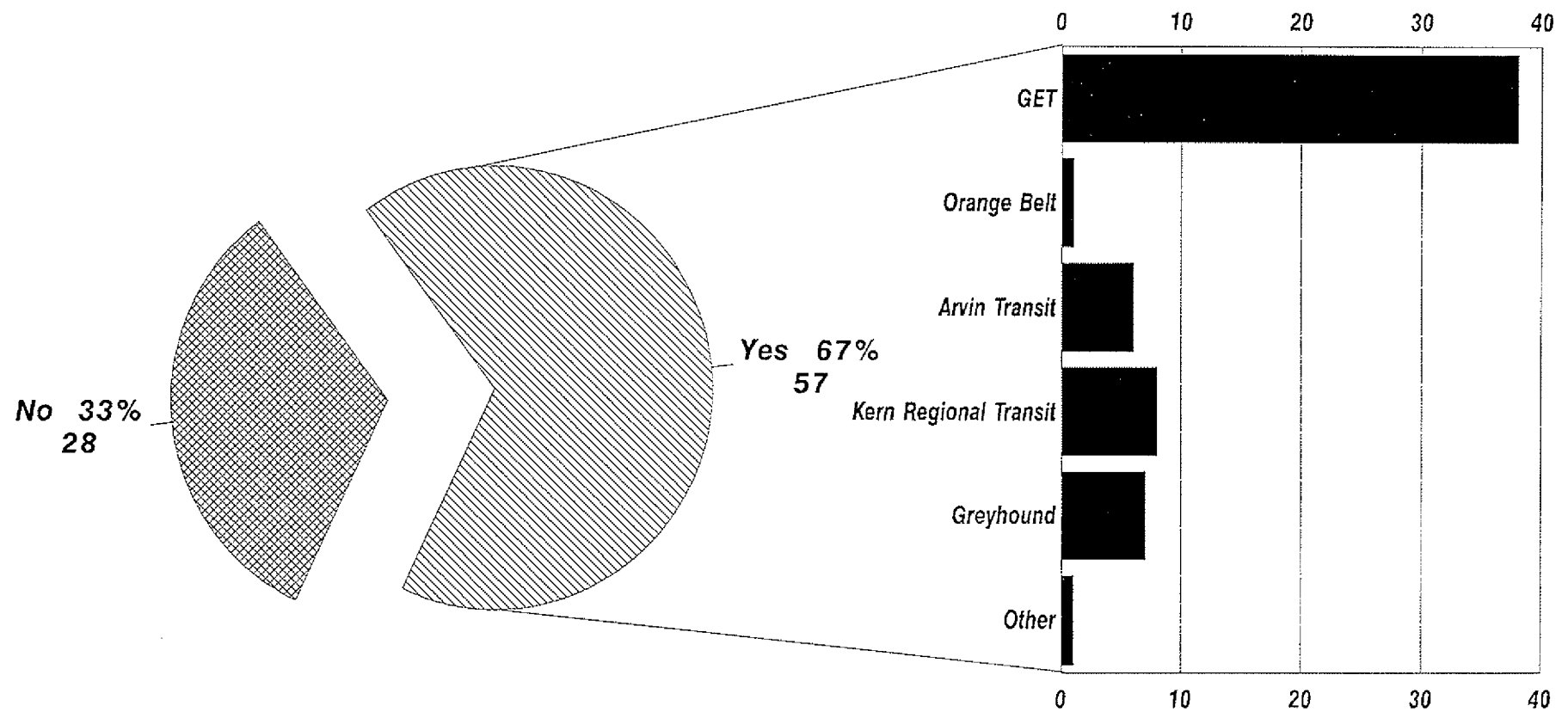


Figure 2-10
Do You Transfer to Another Transit Service?



Evaluation of Service and Suggested Improvements

Respondents were furnished with the opportunity to evaluate the service and make suggestions for changes. Overall, the service receives high marks from its riders, with 47 percent conferring an "excellent" rating. Almost as many (46 percent) noted it as "good," with six percent marking "fair" and nobody listing the service as "poor."

Even with the favorable ratings, survey respondents provided suggestions for improvement. Figure 2-11 lists the most frequent responses ranked by number of individuals indicating similar responses.

Figure 2-11
Suggested Changes and Destinations

Rank	Suggested Change	Number of Respondents Indicating Change
1	Greater frequency during the day	32
2	Service between 10:00 am and 2:00 pm	21
3	Spanish-speaking drivers	14
4	Go to Arvin	12
5	Go to Valley Plaza	10
6	Go to more locations in Bakersfield	8
7	Provide service on Sundays	6
8	Longer service hours	4
(tie)	Stops in Greenfield	4

The most common response was the need for improved frequency in the service during the day. Thirty-two respondents listed this as a suggested change. This represents over 40 percent of the total number of respondents. Many of these individuals wrote that a satisfactory service frequency during the day might be achieved by scheduling runs between 10:00 am and 2:00 pm. Several respondents specifically noted that an 11:00 am or 11:30 am bus would be preferred.

Survey results indicate that there may be a language barrier between Spanish-speaking passengers and drivers unable to speak Spanish. While many of the surveys that were completed in Spanish made note of this, a similar number of the surveys completed in English referred to the language barrier as a problem. This may be a particular problem for passengers who seek information about stops.

While additional stops in Bakersfield, including Valley Plaza, and service to Arvin rounded out the most frequent responses, also suggested were Sunday service to provide access to church, longer service hours to facilitate going out to dinner, and service to Greenfield. In addition, more than one rider suggested each of the following: make fewer stops, provide more benches at stops, provide better on-time service, and develop monthly passes to eliminate the need to pay for each trip separately.

2.4.2 Bakersfield-Frazier Park

A much smaller ridership level resulted in far fewer survey responses on this service than on the Bakersfield-Lamont service. A total of eleven surveys completed by riders provides information about the service. Only one survey form was completed in Spanish.

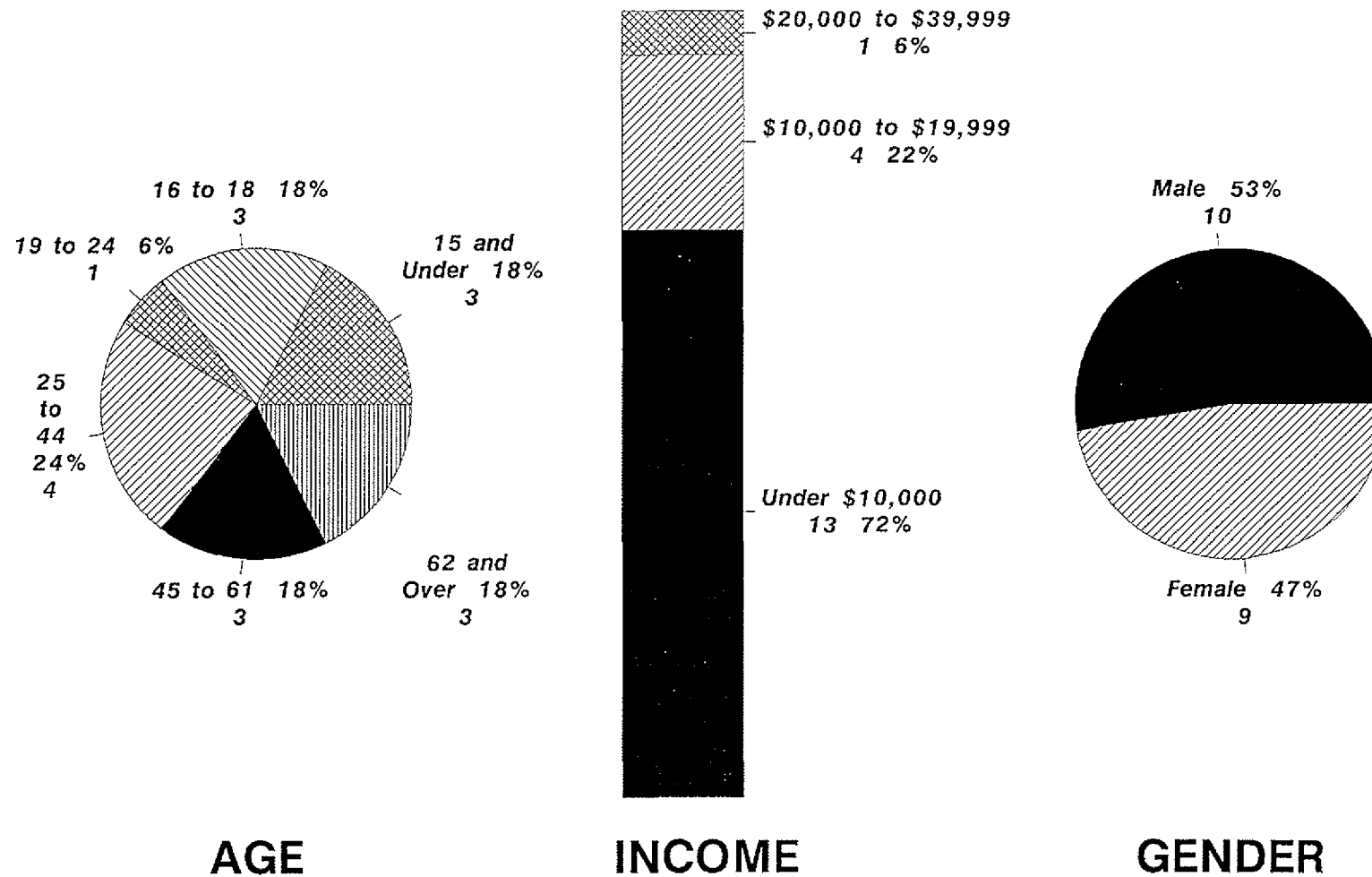
Rider Demographics

Eight of ten riders responding to the question about their income indicated that it was under \$10,000. This is consistent with ridership in this study corridor on the Bakersfield-Lamont service. Seven of the eleven survey respondents were male. Riders represented all age range categories provided on the survey form. Figure 2-12 presents demographic data for survey respondents.

The Bakersfield-Frazier Park route serves a small range of trip purposes. The majority of the respondents (seven) were taking the bus for personal or shopping needs. Trips for medical and dental appointments and for school/college were each indicated by two respondents.

There was more variety among the origins and destinations that were marked by the riders completing the survey. The most common trip origin-destination pair was represented by the four passengers traveling between Lebec and Frazier Park. Two passengers used the service to travel between Bakersfield and Lebec and two others for the full run between Bakersfield and Frazier Park. One passenger indicated travel between Lake of the Woods and Frazier Park. Another traveled from Los Padres estates to Frazier Park. Only one passenger used the service to travel from an origin to a destination entirely within Frazier Park (the respondent indicated he had walked one direction of the trip). Seven of eleven passengers marked they were using the bus service for both directions of their trip.

Figure 2-12
Bakersfield-Frazier Park On-Board Survey Rider Demographics



Transit Use

The transit system provides an important service for riders taking transit to their destination. Only two riders indicated that there was a car available to them for the particular trip they were taking by bus.

Riders were asked how often they use this service. Five of the eleven riders responded they use it two days per week, the total number of times the service is available. The remaining six riders take this bus between one and four days each month. None of the respondents indicated that they transfer to other transit services.

Evaluation of Service

Overall, riders are pleased with the Bakersfield-Frazier Park service. Only one rider rated the service "fair," while the others were more positive, with seven of the remaining ten rating it "excellent." Nonetheless, respondents included ideas for changes. Among the comments made by respondents were the following:

- Provide longer service hours, beginning earlier and going as late as 6:00 pm (two respondents);
- Develop a bus pass;
- Provide buses with more windows for better ventilation (two respondents);
- Use one bus for Monday through Friday service to Bakersfield and one bus for Monday through Friday local Dial-a-Ride services; and
- Provide service on Saturdays.

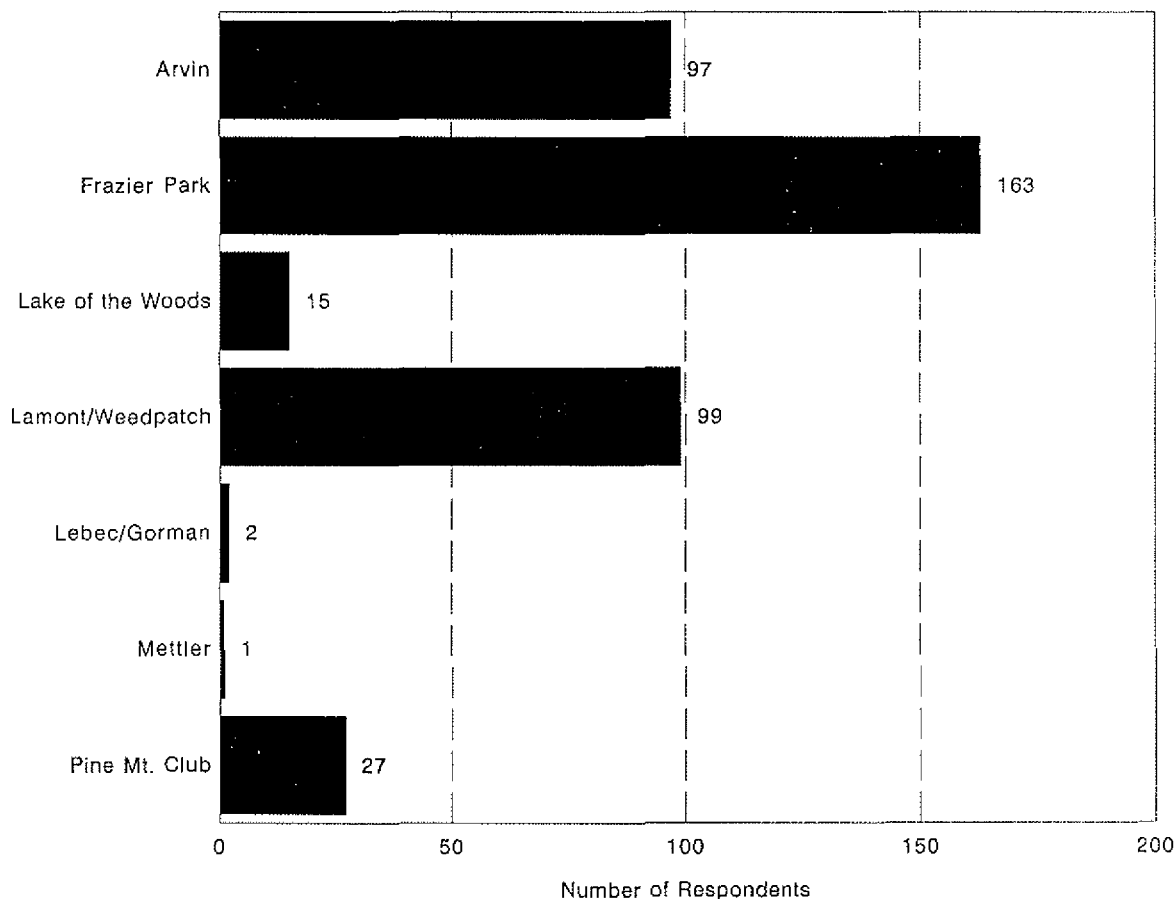
When asked if there were someplace they would like to go not presently served by the intercity bus service, only three locations were listed: Gorman, Valencia and the DMV.

While the responses reason that there is general satisfaction with the service, the potential for incorporating suggestions and making improvements is worthy of consideration. Some comments, such as "provide Saturday service," imply a lack of knowledge about the services. This may actually point to a service marketing issue. Although it is likely unwise to make dramatic changes based on only a few responses, suggestions by riders echo comments made by potential riders not currently using the service. Many such responses were obtained by administering a telephone survey.

2.5 TELEPHONE SURVEY

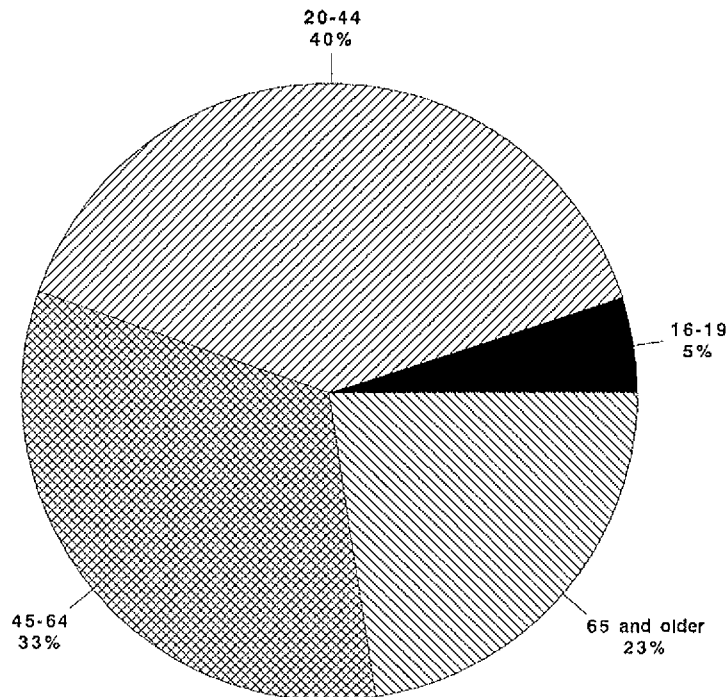
Telephone surveys were conducted of residents of communities in the study corridor, as well as in Bakersfield. Included among the respondents are residents of Arvin, Frazier Park, Lamont, and the smaller residential communities near Frazier Park. Over 400 surveys were completed, with Frazier Park residents accounting for 40 percent of the total survey population. Figure 2-13 illustrates the number of individuals from each community who completed the survey. Telephone survey forms are included in Appendix A.

Figure 2-13
Household Location



Assessing potential transit ridership involves looking at various forms of demographic information as well as responses to questions about preferred transit service. The sample population, comprised primarily of females (65 percent), represented several different age groups. While the largest groups of respondents were between 20 and 44 years old (40 percent), one-third of respondents were between 45 and 64. Individuals 65 and over were represented by 23 percent of those completing the survey. The age ranges are graphed in Figure 2-14.

Figure 2-14
Age of Respondents



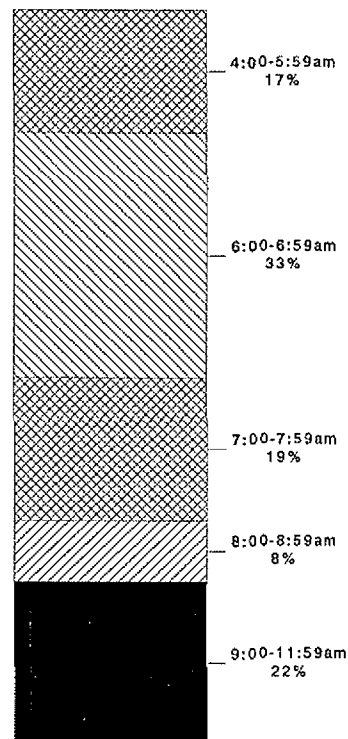
The work status of the population is a key determinant of the type of transportation needs that might exist. In this study corridor, 32 percent of the survey respondents indicated they are retired. Thirty-five percent are homemakers or are involved in other activities. Eighteen percent of respondents are employed, but only 47 percent of them work in Kern County. The unemployed survey population represents 12 percent of the total.

Of the group of respondents that commutes to work or school, almost 80 percent drive alone to their destination. Small numbers walk, are dropped off, or use other transportation modes. Nobody indicated using public transportation to commute.

With 53 percent of the employed respondents working in locations outside of Kern County and no very direct transit access outside of Kern County, it is no wonder that the population does not commute by transit. Perhaps another indicator of why public transportation is not used for commuting in the area is that 50 percent of commuters leave home for work before 7:00 am. Only the Lamont Dial-a-Ride and the Lamont-Bakersfield Route initiate service before 7:00 am. Kern Regional Transit services provided in Frazier

Park and those in the Arvin area provided by Arvin Transit begin later. Figure 2-15 illustrates the time periods that individuals leave home for work or school.

Figure 2-15
Time Leaves Home for Work or School



As in most of the communities in Kern County, residents rely on their cars and vehicle access is high. Only four percent of respondents indicated they had no access to an automobile, van or truck. While one-third of the remaining respondents have access to one vehicle in their household, the remaining two-thirds have at least two vehicles per household. Six percent of respondents indicated having four or more vehicles.

To assess how much people know about available transit options, respondents were asked whether they are familiar with a range of transit service providers. A majority of the residents of the communities in the study corridor sample population were familiar with no public or mass transit providers (63 percent). Of the systems eliciting a higher number of familiar responses, Kern Regional Transit is best known (97 responses), followed by Arvin Transit (43 responses) and Bakersfield's GET system (20). The remaining public and private transit providers in the county were known to very few respondents. The table in Figure 2-16 lists the responses for each of the agencies about which respondents were asked.

Figure 2-16
Transit System Familiarity

Are You Familiar with the Following Transit Agencies (yes)	Frazier Park
No Services	253
Kern Regional Transit	97
Arvin Transit	43
GET	20
Orangebelt	5
AMTRAK Bus	2
Tehachapi Transit	1
Ridgecrest Transit	1
California City Bus	1
Antelope Valley Transit	0
Taft Transit	0
Delano Transit	0
Shafter Transit	0
McFarland Transit	0
Other	3

Just because almost 25 percent of the survey population is familiar with Kern Regional Transit's services does not indicate that the system provides service between each individual's preferred origin and destination. Respondents were asked to indicate the one destination for their preferred service. Figure 2-17 presents the results of the destination preferences indicated by respondents. About 70 percent of respondents said that regardless of what service were to be instituted, they would not use the service. Of the remaining respondents, trips between Bakersfield and Frazier Park were indicated by the highest number, 24. Twelve respondents indicated Arvin and Lamont as trip ends, followed by eight respondents suggesting Lamont/Weedpatch to Bakersfield. A survey of 200 Bakersfield residents regarding their preferred destinations netted seven total requests for travel in this corridor.

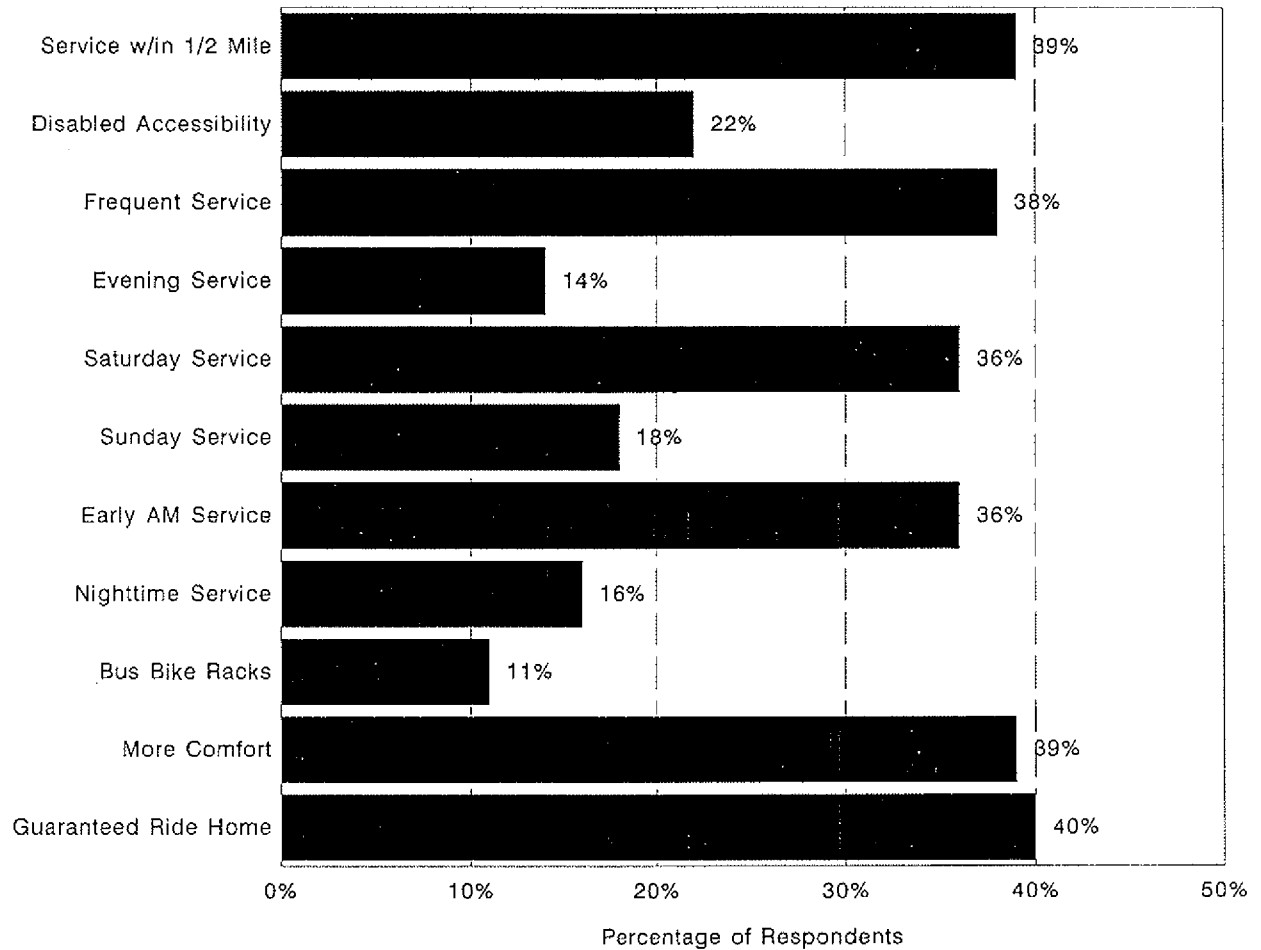
Figure 2-17
Trip Preferences

Person Count: Total Persons Requesting Regardless of Frequency of Use							
	Frazier Park	Pine Mt. Club	Lake of the Woods	Lebec/Gorman	Arvin	Lamont/Weedpatch	BAKERSFIELD ORIGIN
Frazier Park	5						2
Pine Mtn. Club	1	2					1
Lake of the Woods	2						
Lebec/Gorman	2						
Arvin			2		2		1
Lamont/Weedpatch	1				12	1	3
Tehachapi	1				1		
Bakersfield	24	2	2		7	8	
San Fern/LA	8	1	1			4	
Trip Count: Weighted By Frequency of Use							
	Frazier Park	Pine Mtn. Club	Lake of the Woods	Lebec/Gorman	Arvin	Lamont/Weedpatch	BAKERSFIELD ORIGIN
Frazier Park	16						
Pine Mtn. Club	6	16					2
Lake of the Woods	80						
Lebec/Gorman	6						
Arvin					32		
Lamont/Weedpatch	40		80		162	16	56
Tehachapi	6				40		
Bakersfield	284	46	12		128	88	
San Fern/LA	70					4	
Figures in the last column, for "BAKERSFIELD ORIGIN", reflect demand from Bakersfield to the communities in the Frazier Park corridor, based on a survey of 200 Bakersfield residents. All numbers presented in the table are relative, applicable only to the survey population and are not intended to proportionally represent the communities that were surveyed.							

Projected monthly trips based on trip requests indicate Frazier Park-Bakersfield Travel remains the trip of highest frequency (284), followed by Lamont-Arvin (162) and Arvin-Bakersfield (128).

Are there incentives that might encourage transit use? Respondents were asked to reply whether various incentives for riding transit would encourage their use of transit. Some of the indicated incentives elicited high numbers of positive responses, with 40 percent or nearly that much indicating that a guaranteed ride home, increased comfort, more frequent service and transit access within one-half mile of their home would encourage them to use transit. Saturday service and early morning service also received high numbers of positive responses (36 percent each). Some incentives elicited lower levels of positive responses, led by bus bicycle racks encouraging only 11 percent to use transit. These incentives and the percentage of individuals surveyed who responded positively to each are graphed in Figure 2-18.

Figure 2-18
Incentives for Transit Use



In converting this information to an actual demand estimate, it must be remembered that the base population in Lamont/Arvin is higher than for Frazier Park and will therefore translate to higher demand. The trip distance is also shorter and therefore demand will be higher. Figure 2-19 shows demand projections for these corridors.

Figure 2-19
Frazier Park-Lamont-Bakersfield Demand Estimate

	High 15%	Low 5%	Likely
Bakersfield - Frazier Park	14,200	4,750	10,000
Lamont - Bakersfield	40,000	25,000	38,000
Bakersfield - Santa Clarita	3,500	1,150	2,000
			50,000

CHAPTER 3. SUMMARY OF SERVICE NEEDS

Service in the Bakersfield-Frazier Park corridor provides a valuable service to Kern County residents. Ridership in the Bakersfield-Lamont service corridor has been growing rapidly. The performance of the Bakersfield Frazier Park service has been lower in past years related to the limited service schedule. In March of 1995 service was upgraded from two days per week to six days a week. Kern residents respond extremely well to high frequency service and are expected to respond well to this modification in the Frazier Park Corridor. The results of the existing conditions analysis including current performance, operating statistics, on-board and telephone survey results and review of population data indicate the following potential needs deserve attention:

- **Low ridership on the Bakersfield-Frazier Park Service** - Increased service has been implemented in the corridor to address this concern. The service plan alternatives look at an alternative service schedule to improve ridership further.
- **High School Student Service** - The El Tejon Unified School District has traditionally bused students in grades 9, 10, 11 and 12 to Bakersfield for school. In 1995/96 a new High School will open in Frazier Park and only 12th grade students will be bused to Bakersfield. No after school activities busses will be provided for any High School students. In addition, no after school activities will be provided in Frazier Park. As a result, there may be markets opening up to provide transportation to school and to extra-curricular activities for Frazier Park high school students attending Bakersfield High School and the Frazier Park High School.
- **Santa Clarita and Metrolink Service** - Several survey respondents from Frazier Park and Bakersfield indicated they would use service to Santa Clarita with connections to Metrolink to Los Angeles. The service plan alternatives evaluate ways to provide that connection.
- **Lamont Service** - Productivity on the Lamont service is excellent and growing rapidly. With this growth and potential changes in the City of Arvin Transit services it will become necessary to expand the capacity of the Lamont Service. The service plan provides an alternative to expand service between Bakersfield and Lamont with limited new vehicle service hours.

The existing conditions analysis also pointed out the need to establish some specific service goals, objectives, standards and measures for the Bakersfield-Frazier Park and Bakersfield-Lamont fixed route services. Chapter 4 outlines recommended goals, objectives, standards and measures for both services.

CHAPTER 4. PERFORMANCE MONITORING STANDARDS

Kern Regional Transit has developed an outline of system-wide goals and objectives for FY 1994/1995. The goals provide a basic framework within which the transit system can provide service. Not geared toward any specific corridor, the goals and objectives in the document apply to all Kern Regional Transit fixed routes and Dial-a-Ride services.

Performance measures have been developed for the Bakersfield-Frazier Park Corridor by applying specific standards to the system-wide Kern Regional Transit goals and objectives. Some additional objectives have been included to address specific aspects of the corridors or other needs. Some of the system objectives have been modified slightly to fit the format of this outline.

Figure 4-1 outlines the system goals and objectives and includes performance standards and measures associated with each of the listed objectives as it applies to this corridor.

4.1 DEFINING GOALS AND OBJECTIVES

Organizations have a tradition of setting a framework within which they conduct their mission. **Goals** are necessary to establish an organizational philosophy so that methods of addressing this philosophy can be identified. By listing goals and including them in plans, an agency is afforded the opportunity not only to guide its overall policy direction, but also to allow for a reference point in accordance with which decisions can be made. In setting goals, Kern Regional Transit can pinpoint **objectives** that assert the specific means by which goals will be met. Since objectives should be attainable, they are generally program-oriented.

Directly related to the objectives, **performance measures** allow for evaluating the achievement of objectives. Different methods are required to assess and measure achievement, including system monitoring and the collection, analysis and evaluation of data. Often qualitative, passive performance measures are developed to assess achievement of service design. Active measures, which are more often quantitative, are used to assess service performance. Both active and passive performance measures are included in this chapter.

Performance standards are used to compare the actual level of attainment by the transit system with that desired for each measure. Most often quantitative, standards may also be qualitative when assessing, for example, whether an objective has been achieved. Generally, a transit system should set achievement targets based on factors such as available equipment, population growth, and residential density. Service expansions, funding changes and other circumstances such as shifting market conditions may necessitate the adjustment of standards on an annual or more frequent basis.

4.2 GOALS, OBJECTIVES, PERFORMANCE MEASURES AND STANDARDS

The overall mission of Kern Regional Transit " is to provide the greatest feasible level of public transit service within unincorporated Kern County and to maximize the usage of said service."

The five goals that were outlined in the Kern Regional Transit Goals and Objectives paper for FY 1994/1995 are maintained in this Transit Development Plan, with information included regarding Kern Regional Transit's performance in this corridor during fiscal year 1993/1994. For each goal, several objectives and measures are included, listed in Figure 4-1. Performance is measured and calculated by standard means using information that can be readily collected by Kern Regional Transit, eliminating complex data gathering that might otherwise burden the system.

The following goals maintain the interests of providing reliability, increased service and convenience for all populations served by Kern Regional Transit, while minimizing operating costs:

1. Provide transit service that is effective in both attracting and retaining riders in areas with identifiable transit needs.
2. Provide economical and cost efficient transit services which provide optimum value to the user/taxpayer.
3. Provide and promote transit, where applicable, that is environmentally sound and enhances the overall quality of life.
4. Develop and maintain a regional transit network throughout Kern County.
5. Work toward reducing/eliminating barriers to transit usage.

Figure 4-1
Draft Goals, Objectives, Performance Measures, and Standards for Bakersfield-Frazier Park Corridor

GOAL	OBJECTIVE	PERFORMANCE MEASURE	STANDARD	FY 1993/94 PERFORMANCE
1. Provide transit service that is effective in both attracting and retaining riders in areas with identifiable transit needs.	a. Increase ridership on Kern Regional Transit routes on new and existing services.	Bakersfield-Frazier Park-Santa Clarita: Triple FY 1993/94 ridership in FY 1994/1995 ridership. Increase ridership 50% over 1994/95 level in 1995/96 and 1996/97, and 25% in 1997/98, 20% in 1998/99 and 15% in 1999/00.	Bakersfield-Frazier Park-Santa Clarita w/separate Lamont Service. Increase to: FY 1994/1995: 2,700 passengers (partial year frequency increase) FY 1995/1996: 4,000 passengers FY 1996/1997: 5,000 passengers FY 1997/1998: 6,250 passengers FY 1998/1999: 7,500 passengers FY 1999/2000: 8,600 passengers	B-FP: 910
		Lamont service increase 15% annually in 1995/96, 10% in 1996/97 and 1997/98, and 5% thereafter	Lamont-Bakersfield: FY 1994/1995: 24,880 passengers FY 1995/1996: 28,600 passengers FY 1996/1997: 31,475 passengers FY 1997/1998: 34,620 passengers FY 1998/1999: 36,350 passengers FY 1999/2000: 38,170 passengers	B-Lamont: 21,956 (combined)
			Bakersfield-Frazier Park-Santa Clarita via Lamont: FY 1994/1995: 27,200 (two separate services combined) FY 1995/1996: 32,500 passengers FY 1996/1997: 37,500 passengers FY 1997/1998: 42,000 passengers FY 1998/1999: 47,000 passengers FY 1999/2000: 48,500 passengers	B-FP: 1.13 passengers B-Lamont: 8.68 passengers per revenue hour
		Passengers per revenue vehicle hour	Bakersfield-Frazier Park-Santa Clarita: FY 1997/1998: 2.3 FY 1999/2000: 3.2 Bakersfield - Lamont: FY 1997/1998: 13.3 FY 1999/2000: 14.7 Bakersfield-Frazier Park-Santa Clarita via Lamont: FY 1997/1998: 5.8 FY 1999/2000: 6.7	N/A

GOAL	OBJECTIVE	PERFORMANCE MEASURE	STANDARD	FY 1993/94 PERFORMANCE
1. Continued	b. Initiate new service and satisfy service demand pursuant to the policy definition of "reasonable unmet transit needs"	% cost recovery through farebox receipts on new or expanded service	10% TDA mandate/two years after implementation of Santa Clarita Service	7.4% - FP-Bakersfield 21% - Lamont-Bakersfield
	c. Increase service capacity when demand exceeds current capacity.	Passenger load/vehicle capacity	Never exceed average of 1:1	Complies
	d. Operate safe, reliable and convenient transit service.	Incidents	1 per 50,000 miles	N/A
		Vehicle Miles Between Road Calls	10,000 miles	N/A
		Missed trips	1%	N/A
		Percent of scheduled departures zero minutes early to 5 minutes late of scheduled time	95%	N/A
	e. Maintain a current understanding of existing and prospective riders and various community/regional transportation needs. Promote the use of transit services to the maximum extent possible.	Marketing materials accurate and widely distributed	Develop a Kern Regional System-wide Brochure Develop a network for the distribution of marketing materials and the redistribution of service and schedule changes.	N/A N/A
		Meetings with community groups, employers and response to comments from public	Yes	Ongoing
		Passenger complaints/passengers	<.01%	None
2. Provide economical and cost efficient transit services which provide optimum value to the user/taxpayer.	a. Exercise effective budgetary and cost controls.	Annual operating cost increase per revenue vehicle hour	Annual increase should not exceed Consumer Price Index (CPI) for the Los Angeles Basin Area (1.8% for FY 1993/1994).	N/A
		Ratio of administrative costs to total costs for each service	<20 percent	B-FP: 4.3% B-Lamont: 26%
		No duplication of effort between agencies		None noted
	b. Maintain and update an annual system operating plan	Annual system operating plan	Completed	Complies

GOAL	OBJECTIVE	PERFORMANCE MEASURE	STANDARD	FY 1993/94 PERFORMANCE
2. Continued	c. Prepare analysis of overall system and individual service performance.	Quarterly analysis of productivity measures	Total passengers Revenue passengers Passenger revenue Operating cost Revenue vehicle hours Revenue vehicle miles Preventable accidents Passenger injuries Passenger complaints	Ongoing
		Semi-annual fixed route management information	Schedule adherence	
		Semi-annual Dial-a-Ride management information	Response times Pick up time deviation	
	d. Evaluate current service delivery arrangements.	Conduct evaluation of contractors once every three years.	Yes	Ongoing
3. Provide and promote transit, where applicable, that is environmentally sound and enhances the overall quality of life.	a. Comply with Congestion Management Agency's Congestion Management Program Standards.		Yes	Ongoing
	b. As an employer, assist the county in complying with employer trip reduction requirements.		Yes	Ongoing
	c. Comply with Federal and State Clean Air Acts.	Introduction of compressed natural gas buses	Yes	Meets standard
	d. Provide adequate and necessary transit service to transit-dependent individuals, such as the elderly, disabled and impoverished	% of known concentrations of elders and persons with disabilities served by transit	85%	
		% of vehicles with working lifts	100%	
	e. Provide infrastructure improvements to enhance transit service use	Bus shelters, disabled access and benches at all major stops	Yes	Ongoing
		Vehicle replacement program	Yes	Ongoing

GOAL	OBJECTIVE	PERFORMANCE MEASURE	STANDARD	FY 1993/94 PERFORMANCE
4. Develop and maintain a regional transit network throughout Kern County.	a. Develop and maintain commuter transit service to the maximum extent feasible.	% of commute trips made using transit	Increase commute trips in this corridors by the following percentages annually: Bakersfield-Frazier Park: = < 1%	% of commuters using transit: ¹ 0%
	b. Consolidate and coordinate actions with other transit providers.	Meetings with other transit providers to improve timed transfers		Ongoing
	c. Increase commute trips using public transit by improving awareness and attitude toward transit.	Availability of maps and schedules Special efforts to promote/publicize service to target market Make available representatives of Kern Regional Transit for presentations to schools, businesses and social service agencies. Provide toll-free information number access with convenient hours.	Distribution of material to commuters, shoppers, students, seniors and at area businesses	Ongoing Ongoing Ongoing
5. Work toward reducing/eliminating barriers to transit usage.	a. Assist in and promote the development of a true intermodal and "seamless" transit network throughout Kern County.	Continue discussions with other transit providers to develop programs to meet a multiplicity of needs and provide connections to major transportation destinations inside and outside of Kern County. Ensure transportation options for residents of Kern County's outlying areas to systems that serve nearby major cities such as Fresno and Los Angeles.		Ongoing Ongoing

¹Source: Nelson\Nygaard survey of residents of the study corridor, February 1995.

GOAL	OBJECTIVE	PERFORMANCE MEASURE	STANDARD	FY 1993/94 PERFORMANCE
5. Continued	b. Promote the implementation of land use standards in the planning process which are conducive to transit usage.	Participate in development of local and county land use plans, working to increase the vision of public transit's important role.		Ongoing
		Continue work on reducing congestion in Kern County.		Ongoing

CHAPTER 5. SERVICE PLAN ALTERNATIVES

5.1 INTRODUCTION

The existing conditions analysis for the Bakersfield-Frazier Park Corridor provided the study team with several key issues to address in the service planning effort. These were:

- **Low Ridership**

Productivity on this route is lower than the survey response demand for service would indicate. The route served 910 passengers in 1993/94. Analysis of the survey responses would indicate a likely demand for 10,000 trips annually between Frazier Park and Bakersfield. The low productivity was likely the result of the infrequent service (e.g.: two times per day on Tuesdays and Thursdays). Increased frequency on this service should increase productivity significantly.

- **High School Student Service**

The El Tejon Unified School District has historically bused students in grades 9, 10, 11 and 12 to Bakersfield for school. A new High School will be opening in Frazier Park to serve students in grades 9, 10 and 11 in 1995/96. Twelfth grade students will continue to be bussed to Bakersfield. School Bus service for these students has included a morning trip leaving Frazier Park at 6:30 am, an afternoon trip arriving in Frazier Park from Bakersfield at 4:15 pm and an after school activities bus departing Bakersfield at 5:00 pm and arriving in Frazier Park at 6:15 pm. In 1995/96 the morning and afternoon trip will continue, but there will not be any after school activities bus service.

Kern Regional Transit is offered two opportunities: 1) Kern Regional Transit could explore opportunities to provide the student bus services to and from Bakersfield for the 12th grade students, potentially with financial support from the school district (e.g.: Kern Regional may be able to provide the service at a cost savings to the school district), and 2) Students desiring to stay after school or go to Bakersfield for special activities could utilize the Kern Regional service, since no activities bus service will be offered by the school district.

- **Santa Clarita and Metrolink Los Angeles Service**

Service connection to the Santa Clarita Metrolink Station (e.g.: connections into Los Angeles) from Frazier Park and Bakersfield may be feasible based on the survey desirability of these trips and the demographics of Frazier Park residents, many of whom are retired people who previously lived in the Santa Clarita Valley. Survey demand for the trip from Frazier Park to Santa Clarita indicated a conservative demand for 1,400 trips annually. Residents of Bakersfield desiring to connect to

Metrolink or Santa Clarita destinations may also use this service, increasing ridership to 2,000 annual trips, although the 1.5 hour trip time between Bakersfield and Santa Clarita negatively affects that demand.

- **Lamont Service**

The current service between Bakersfield and Lamont is very productive with the survey indicating good potential for future growth. While this corridor is not the subject of this TDP the study team strongly encourages maintaining this service at present levels, if not increasing levels.

Currently Frazier Park-Bakersfield buses are routed along Highway 99 to facilitate stops at Pumpkin Center, the Valley Plaza Mall at Ming Avenue and the Medical Center facilities near "H" and Brundage. An alternative routing through Lamont with stops in Weedpatch and Lamont would increase the productivity on the Frazier Park Service, while providing additional service to the Lamont-Bakersfield corridor. Service to specific locations in Bakersfield would be facilitated by GET or by the Medical Dial-a-Ride Kern Regional Transit is currently operating to facilitate connections from other Kern Regional Transit Routes within Bakersfield.

5.2 SERVICE ALTERNATIVES

Three alternative service scenarios, addressing the issues outlined above, are described and evaluated for the Frazier Park-Bakersfield Corridor. These include:

- Increased Service Frequency
- Santa Clarita Connection/AM and PM Service Expansion
- Bakersfield via Lamont Route Alternative

Each alternative is discussed below.

5.2.1 Increased Service Frequency

The increased service frequency alternative actually reflects service modifications implemented by Kern Regional Transit in April of 1995. The prior twice a day, Tuesday/Thursday service was determined to be inadequate to maximize capture of the actual demand. Service frequency has been increased to 6 days a week (Monday through Saturday) with three round trips a day beginning at 8:00 am from Frazier Park and ending at 5:05 pm in Frazier Park. The schedule is shown in Figure 5-1.

Figure 5-1
April 1995 Frazier Park-Bakersfield Service Schedule

SOUTHBOUND		NORTHBOUND	
Bakersfield	Frazier Park	Bakersfield	Bakersfield Runabout
	8:00	8:45	65 min.
9:50	10:35	11:50	65 min.
12:55	1:40	3:15	65 min.
4:20	5:05		

Since this service change was just implemented in the beginning of April 1995 the effect can not yet be evaluated. The study team anticipates that this service increase will result in higher productivity on this route related to the expansion of the days of service as well as the number of daily trips. Weekday productivity should improve considerably. Saturday service productivity is traditionally low on regional services such as this. Saturday service may not prove viable over time on this route.

In combination with the existing Lamont service this schedule provides three round trips per day between Frazier Park and Bakersfield and six round trips per day between Lamont/Weedpatch and Bakersfield. Two vehicles and a total of 6,740 Vehicle Service Hours are dedicated to these services.

While a definite improvement over the prior schedule this service may better address the needs of Frazier Park residents by offering expanded service to meet the needs of El Tejon Unified School District 12th graders (approximately 40 students) attending school in Bakersfield. A schedule to accommodate this potential need is shown in Figure 5-2.

This alternative would also address any potential work commute market between Frazier Park and Bakersfield, although the surveys conducted by the study team showed a very limited commute market between Frazier Park and Bakersfield. If negotiations with the School District demonstrate potential for a "guaranteed" market for early am and later pm service its implementation would facilitate exploration of the Frazier Park-Bakersfield work commute market with a lower risk factor than if the school student market were not available. If the School District continues to operate the trip to school in the morning and the return trip in the afternoon, Kern Regional may still want to add the last evening trip to accommodate students staying after school to attend extra-curricular activities. The early morning trip would not be required on Saturdays.

Figure 5-2
Expanded AM/PM Bakersfield-Frazier Park Service

SOUTHBOUND		NORTHBOUND	
Bakersfield	Frazier Park	Bakersfield	Bakersfield Runabout
	7:00	7:45	30 min.
8:15	9:00	9:45	65 min.
10:50	11:35	12:20	65 min.
1:25	2:10	2:55	65 min.
4:00	4:45	5:30	30 min.
6:00	6:45		

In combination with the existing Lamont service this alternative would provide 4 to 5 round trips between Bakersfield and Frazier Park (dependent on whether the first morning trip is included), and 6 round trips between Bakersfield and Lamont. A total of two vehicles and 7,462 vehicle service hours would be required to operate this service.

5.2.2 Santa Clarita Connection/AM and PM Service Expansion

The survey indicated demand for service accessing the Santa Clarita Valley and other locations in Los Angeles County. A portion of that service is work commute related with the largest portion related to visiting, shopping and medical trips. Many residents of Frazier Park are former residents of the Santa Clarita Valley or other Los Angeles or Ventura County locations and their frame of reference is toward Santa Clarita, rather than Bakersfield, for social, shopping and medical. This alternative would provide service for Frazier Park residents, and potentially for Bakersfield residents to Santa Clarita and Los Angeles.

Kern Regional service would be coordinated with Metrolink into Los Angeles at the Santa Clarita Metrolink Station. That Metrolink Station also serves as a major time transfer point for Santa Clarita Transit facilitating access throughout the Santa Clarita Valley. Antelope Valley Bus (private) also provides connections to Palmdale and Lancaster from this Metrolink Station.

This schedule would provide later evening service that would meet the needs of El Tejon Unified 12th grade students staying after school in Bakersfield for extra-curricular activities. An early morning trip from Frazier Park to Bakersfield could be added to the schedule to transport El Tejon Unified Students to Bakersfield although it would be a very early trip (e.g.: arriving in Bakersfield at 7:00 am) in order to maintain the morning connection to Santa Clarita and Metrolink to Los Angeles.

Figure 5-3 includes the schedule for this service. The 8:45 am arrival in Santa Clarita would facilitate access to the 8:53 Metrolink departure to Los Angeles, as well as connections on Santa Clarita Transit throughout the Santa Clarita Valley. This trip would also provide morning return service to Frazier Park, and on to Bakersfield if desired, from Los Angeles (Metrolink arrives in Santa Clarita from LA at 8:28 am) and the Santa Clarita Valley.

There are no noontime Metrolink connections at Santa Clarita. However, this service would provide connections to Santa Clarita and Metrolink to Los Angeles at 3:15 pm and 7:05 pm. These connections would facilitate trips from Los Angeles (Metrolink Trains arriving in Santa Clarita at 2:45 pm and 7:03 pm) as well as connections to Los Angeles on Metrolink Trains leaving at 3:25 pm and 7:25 pm respectively. An alternative would be to eliminate the last trip of the day to Santa Clarita, although that results in a very short activity day in Santa Clarita for system users. Although Metrolink does not operate on Saturday it is suggested that the Saturday trips to Santa Clarita be maintained to address the needs of those visiting or shopping in the Santa Clarita Valley.

Figure 5-3
Santa Clarita and Metrolink LA Connection/PM Bakersfield Service

SOUTHBOUND			NORTHBOUND			
Bakersfield	Frazier Park	Santa Clarita	Frazier Park	Bakersfield	B.field Runabt.	Metrolink arvl.fm.LA / dptr.to LA
			*			
	8:00	8:45	9:30	10:15	60 min.	8:28/8:53
11:15	12:00	N/A	12:00	12:45	60 min.	None
1:45	2:30	3:15	4:00	4:45	60 min.	2:45/3:25
5:45	6:30	7:15**	8:00			7:03/7:25

* A 6:20 am departure from Frazier Park could be added to accommodate work commuters and Senior High School Students .

** This Evening Santa Clarita/Metrolink connection could be eliminated.

In combination with the existing Lamont-Bakersfield Service this alternative would provide three round trips between Frazier Park and Bakersfield, three round trip connections between Frazier Park and Santa Clarita (two round trips between Bakersfield and Santa Clarita), and six round trips between Lamont/Weedpatch and Bakersfield. Elimination of the last trip to Santa Clarita from Frazier Park is an option, but would reduce the Frazier Park Santa Clarita connections to two per day and the Bakersfield-Santa Clarita

connection to one per day. Retaining the evening connection this service would require 7,644 vehicle service hours. Two vehicles would be in service.

5.2.3 Bakersfield via Lamont Route Alternative

A third alternative would combine the Bakersfield-Frazier Park and Bakersfield-Lamont Services into one service, adding service to the Santa Clarita Metrolink Station. The Lamont service is showing strong ridership that may be better served with more frequent trips. In addition, the productivity and cost effectiveness of the Frazier Park Service would be enhanced by this alternative.

For this scenario the buses would route from the GET Downtown Transfer Station in Bakersfield, through Lamont and Weedpatch on Highway 184, linking into I-5/99 to Frazier Park and continuing on from Frazier Park via I-5 to the Santa Clarita Metrolink Station. Figure 5-4 shows the schedules for these services.

Figure 5-4
Bakersfield-Frazier Park-Santa Clarita via Lamont

SOUTHBOUND					NORTHBOUND				
Bakersfield	Lamont	Weedpatch	Frazier Park	Santa Clarita	Santa Clarita	Frazier Park	Weedpatch	Lamont	Bakersfield
7:00	7:25	7:30	8:00	8:45			6:15	6:20	6:50
8:15	8:40	8:45					7:30	7:35	8:05
10:45	11:10	11:15	11:45	N/A			8:45	8:50	9:20
12:00	12:25	12:30			8:45	9:30	10:00	10:05	10:35
1:15	1:40	1:45	2:15	3:00			11:15	11:25	11:55
2:30	2:55	3:00			N/A	12:00	12:30	12:35	1:05
3:45	4:10	4:15					1:45	1:50	2:20
5:00	5:25	5:30	6:00	6:45			3:00	3:05	3:35
6:15	6:40	6:45			3:00	3:45	4:15	4:20	4:50
							5:30	5:35	6:05
					6:45	7:30			

This alternative provides four round trips per day between Frazier Park and Bakersfield, three round trips per day between Frazier Park and Santa Clarita (two between Bakersfield and Santa Clarita), and nine round trips per day between Bakersfield and Lamont/Weedpatch. This service would require two vehicles and 7,644 vehicle service hours.

In addition to increased service for Lamont/Weedpatch residents to Bakersfield, this alternative facilitates their access to Santa Clarita and Metrolink to Los Angeles. This alternative also addresses the need for activities bus services for El Tejon Unified School Students from Bakersfield to Frazier Park.

Should the City of Arvin terminate service between Lamont and Arvin and Kern Regional Transit decide to provide that service, this alternative would have to be evaluated to determine the most effective service option in light of the need to serve Arvin. This schedule is relatively tight and does not provide an opportunity to add side trips to Arvin. However, the Arvin Dial-a Ride vehicle could make prescheduled trips to Lamont to connect with this service providing these same increased service options to Arvin residents.

5.3 ADA IMPLICATIONS

The Americans with Disabilities Act (ADA), passed in 1990, is broad civil rights legislation passed to protect the rights of people with disabilities. Disability is broadly defined to include individuals who have, have had a record of, or are regarded as having physical or mental impairments that substantially limit one or more life activities. Major portions of the act address accommodation of people with disabilities in public buildings and places, employment, telecommunications and transportation.

Transportation requirements of the ADA fall into two areas: the provision of accessible vehicles on the regular service; and the provision of complementary paratransit services for riders, who by nature of their disability, are unable to use the accessible fixed route vehicles. This includes riders who can not get to fixed route bus stops because of a lack of accessible sidewalk, curb ramps or other impediments.

5.3.1 Accessible Vehicles

The provision of accessible vehicles on the regular service is required for all public or private services. It is clear that Kern Regional Transit will be required to comply with these provisions by 1997 regardless of who owns the vehicles (i.e.: Kern County or the service contractor).

5.3.2. Complementary Paratransit Service

Under the ADA complementary paratransit must be provided to serve individuals who can not, because of some aspect of their disability or some aspect of the vehicles or fixed route bus stops (i.e.: lack of sidewalk, curb ramps, steep slopes, etc.), access the regular fixed route service. Complementary paratransit essentially provides door to door (i.e.: curb in front to curb in front) service for people who qualify. The complementary paratransit service must be provided during the same service hours as the fixed route service. It must cover a geographic area 3/4 of a mile on either side of the fixed service route. A telephone reservation system must be put in place to allow riders to call up to the day before they want to travel to reserve the trip. The maximum paratransit fare is twice the regular service fare.

A transit operator required to provide ADA complimentary paratransit service is required to complete a plan describing how it will meet the ADA paratransit requirements. The basic plan outlines the actions the transit operator will take to comply with the requirements and provides an estimate of the amount of service the operator anticipates will be needed. An update of the base plan is required to be submitted by January 27 of each year until full compliance is achieved. The update is required to describe the progress made toward compliance and explain and establish new deadlines for delayed activities. The plans must be publicly reviewed and be accepted by the Federal Transportation Administration (FTA).

If a public entity, such as Kern Regional Transit, is involved in operating, planning, managing or funding transit service then it is considered "Designated Public Transportation" and is subject to the ADA Title II provisions. Title II basically applies to all publicly managed and funded services and requires those services to provide complementary paratransit for those who are unable to use the accessible fixed route bus. There are three types of public transportation services specifically exempted from the Title II paratransit requirements. They are: commuter bus, commuter rail and intercity rail services. While the later two clearly do not apply to this service, the commuter bus definition does.

To be considered a commuter bus service five key criteria must be met:

- the service must operate predominately (not exclusively) in one direction during peak commute periods;
- operate with limited stops;
- use multi-ride tickets;
- routes must be of extended length; and
- operate in a coordinated relationship to another mode of transportation.

The final legal interpretation of these criteria have not been determined by the Federal Transportation Administration (FTA), the enforcement body for Title II of the ADA. Generally, if a service complies strongly with several of the criteria and moderately with the others the commuter bus definition would apply. Based on current information and interpretations, and the service design and intent the corridor fixed route services in the Bakersfield-Frazier Park-Santa Clarita corridor would be defined as an intercity commute service and therefore would not be required to include complementary paratransit.

5.4 RECOMMENDATION

The study team recommends the ultimate implementation of the third service alternative. Between the existing Lamont-Bakersfield Service and the April 1995 Frazier Park-Bakersfield service Kern Regional Transit is spending approximately 6,740 vehicle service hours in this corridor. That service includes three round trips per day between Frazier Park and Bakersfield and six round trips a day between Lamont/Weedpatch and Bakersfield.

By realigning this service through Lamont and adding approximately 700 vehicle service hours this service could provide four round trips per day between Bakersfield and Frazier Park, three round trips to Santa Clarita for Frazier Park residents (two round trips per day to Santa Clarita for Bakersfield, Lamont and Weedpatch residents) and nine round trips per day between Lamont/Weedpatch and Bakersfield. This service would provide a wider range of service alternatives to all residents of the service area south of Bakersfield, including service to Santa Clarita connecting to Los Angeles. In addition, it would address the need for after school activities service for El Tejon Unified 12th grade students.

CHAPTER 6. MARKETING PLAN

Changes in the Bakersfield-Frazier Park service under the service plan will result in improvements to the system, and improvements provide an excellent opportunity for implementing a marketing strategy. No matter how excellent the quality of service provided by Kern Regional Transit may be, without an effective marketing and information program, the potential success of the service cannot be fully realized. Without access to information about the transit services available, there is a barrier to transit use. Without a means of announcing service changes to the public, individuals who are familiar with the route might continue to think the run is available only two days per week.

Marketing for transit is based on a public information function. Too often, transit providers seeking to advertise their services will set out on an advertising plan that neglects the benefits of simply improving resources for their customers. By developing Kern Regional Transit's identity and implementing a public information program, the system is not only improving the service it provides, but is also marketing its services. Marketing allows for a transit system to make its services known, and to increase and better inform ridership. Marketing also creates an identity.

Kern Regional Transit already has in place a number of essential marketing devices:

- a system logo for visual identity
- a toll-free telephone number for system information and dial-a-ride reservations
- brochures for each of the routes served by Kern Regional Transit, providing route information, service rules and fares

In addition, the system has used a number of marketing techniques, from displaying vehicles at special events to free rides on new services.

This chapter outlines additional steps to be taken as part of a marketing plan. The objective is to improve the visibility and usefulness of the services provided by Kern Regional Transit. The key elements of this plan are

- Budgeting for Marketing
- System Identity
- Signage
- Information Resources
- System Use

- Targeted Marketing Efforts

6.1 BUDGETING FOR MARKETING

It is essential to set aside a percentage of the general operating budget for marketing purposes. Otherwise, marketing is done haphazardly without a specific spending and production goal. Kern Regional Transit must clearly define its marketing objectives and develop a budget to address them.

A marketing budget should account for about 2.5 to 3.0 percent of the operating costs for the system or individual route. In systems where marketing has not been applied consistently or where new routes have been introduced, it may be necessary to increase this percentage in early years.

It is recommended that Kern Regional Transit designate 2.5 to 3.0 percent of its overall operating budget to marketing. For routes that have a strong regular ridership, marketing specifically for the route may be less important than overall system marketing. For the Frazier Park corridor, where the service plan calls for expanded services and the introduction of new runs, it may be necessary to target a higher proportion of the marketing budget to the specific routes.

A systemwide policy could be developed in which one-half of the marketing budget for a particular corridor is set aside for marketing the routes within it, while the other half goes to Kern Regional Transit systemwide marketing. Along with such a policy, it is possible that the system could increase the share of the budget for specific routes during their first two years of operation or expansion. After such time, the system would apply the 50-50 marketing budget allocation to equally benefit systemwide promotion and route promotion.

By developing a marketing budget procedure, Kern Regional Transit would be able to better focus its efforts to increase ridership and to provide better services for its passengers. Once a marketing budget is in place, Kern Regional Transit will have defined its spending limitations and will have great flexibility to pursue its many options for increasing ridership.

6.2 SYSTEM IDENTITY

Although Lamont and Weedpatch have known a high level of Kern Regional Transit service for some time, Frazier Park's introduction to the service came with twice weekly runs to Bakersfield and has only recently found an expanded service level.

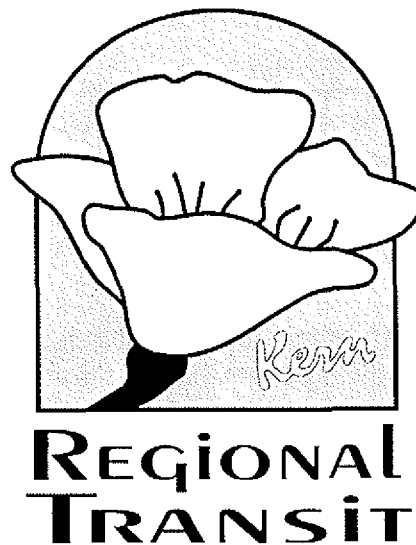
To promote ridership and the coherence of any transit system, visual identity is important. Logos and consistent color schemes are useful. When people can easily identify the

buses around or traveling through Lamont or Frazier Park, they are reminded that the system might be available to take them to their destination and they may seek information about how to use it.

Logos

A logo is an identification device, allowing the public to relate to the service being offered. The logos used by movie studios, airlines, automobile makers or appliance manufacturers evoke an image of the quality and scope of the particular services or products. While some logos are better than others, the most enduring usually suggest simplicity, clarity and familiarity. Kern Regional Transit has developed a logo. Depicting a poppy, it appears on brochures and reports. (Figure 6-2). The logo relates a familiar spring image of the Kern County landscape.

Figure 6-1
Kern Regional Transit Logo



Kern Regional Transit should continue a program to expand the use of the logo and the "Kern Regional Transit" label. Large decals of the Kern Regional Transit logo should appear on all vehicles operated by the system. As with any logo, its color, and the color of the background on which it is presented, should be standardized. The logo should also be included on all bus schedules, maps, advertisements, bus tickets/passes, and bus stop signs. In addition, a logo patch on a driver's uniform, a decal on a bus shelter, and promotional items to include the logo might be considered.

System Name

Kern Regional Transit has a history of being identified by many different names. From K.A.R.E. to Kern Rural Transit Service and Kern County Transit, the system suffers from a recognition problem, trying to represent itself differently to the various populations it serves. To enhance its identity without confusing its ridership, it is necessary to maintain only one name for the service. Buses, signs and brochures which represent the service with the past names must be updated to the Kern Regional Transit name and logo.

Many transit systems use an abbreviation or acronym to make an official name more familiar, easier to use, or "catchy". For example, Kern Regional Transit might be referenced as the KRT or the Kern Bus. When such abbreviations are made, they must be marketed in conjunction with the official name so that there is no distinction to be made between the two names. One method of developing an acronym or familiar name is to survey current riders and others familiar with the service to determine what they currently call the service. Additionally, a contest might be held to find a familiar name for the service.

6.3 SIGNAGE

It is important to maximize the casual marketing value of information services such as signs. Information sources should always present the necessary information as clearly and concisely as possible. Ultimately, clear information is the best marketing.

Signs on the Buses

Header signs at the front of Kern Regional Transit buses that indicate the destination provide a service to the riders, giving them better information about where the bus is traveling. A clear sign at the front of the bus also alerts drivers and pedestrians to the bus' destination, creating a virtual advertisement for the service provided. Depending on which of the service plan alternatives is instituted, header signs will be particularly important if some buses go only as far as Frazier Park while others continue all the way to Santa Clarita. Buses in this corridor might have header signs that read simply "Santa Clarita" or "Frazier Park" or "Bakersfield".

Header signs alone will not provide as much information as is desirable. Placards that list the stops made between origin and destination can be placed at the front of the bus. This would alert potential riders that the bus actually stops in Lamont, for example, along the way to Bakersfield. A sample placard is illustrated in Figure 6-3.

Figure 6-2
Sample Bus Placard

**BAKERSFIELD•LAMONT•WEEDPATCH•
FRAZIER PARK**

SANTA CLARITA

Marketing the toll-free information number offered by Kern Regional Transit can be done using the bus as a moving billboard. A sign at the rear or side of the bus advertising the service and offering the "800" number allows for individuals with questions about fares or the route it travels to call the number.

Signs at Bus Stops

Kern Regional Transit is continuing to install bus shelters and signs at selected stops throughout its service area. Informative bus stops provide an invaluable ongoing marketing function. While some of Kern Regional Transit's current bus stops are identified with bus stop signs, many are at locations where only signs for other transit services are posted, some signs do not present a familiar Kern Regional Transit logo or the name of the service, and some stops are unmarked altogether. A current stop by Weedpatch Market is indicated by a blue sign that makes no reference to Kern Regional Transit. A potential rider who is unfamiliar with the system would likely be unaware that there is a public transportation service available to them. Comprehensive marketing requires making everything within the domain of Kern Regional Transit identifiable to the transit system. Bus stop signs should be clear, and should include Kern Regional Transit's label and logo, along with a telephone number for more information. Stops near Lamont, Weedpatch and Arvin should at least include a notice in Spanish that refers questions to a telephone number where they can be answered.

Bus stops along the Bakersfield-Frazier Park corridor should indicate the destinations of the buses that make the stop. If service to Santa Clarita is initiated, a Kern Regional Transit sign should be posted at the designated Metrolink stop. All stops should be labeled carefully with a Kern Regional Transit bus stop sign that includes basic schedule and route information. Information can be printed on a decal and posted. Providing simple, useful information at the bus stop allows the sign to be an excellent information source. As an example, a bus sign that could be erected in Bakersfield for the services to this corridor is provided in Figure 6-4.

Figure 6-3
Comprehensive Bus Stop Sign Decal



In bus shelters and major stop locations, vandal-proof display cases suitable for schedule posting are available, enabling a clean copy of the route schedule to be posted behind glass, easily replaceable if schedule changes are made. Schedules should be replaced regularly to reduce the appearance of outdated information that arises when schedules become faded, damp, or warped. Schedules could be designed so that they are easily displayed behind glass.

By providing more comprehensive information at bus stops, Kern Regional Transit can reduce the passenger's need to seek telephone information. This makes it easier to use the system spontaneously, while saving on staff time. Special signage could appear at major transfer locations, clearly identifying for passengers where Kern Regional Transit buses stop and alerting persons using other transit systems to the availability of the service provided by Kern Regional Transit.

6.4 INFORMATION RESOURCES

Providing information to better serve the customer is one of the key tenets of transit marketing. Brochures, telephone information, and individuals all serve as very useful information resources.

Brochures

Kern Regional Transit presently uses a set of simple tri-fold brochures, one for each route or dial-a-ride service, photocopied onto pastel colored papers. They are very inexpensive to produce, can be easily duplicated if necessary, and provide basic information for potential customers.

While individual brochures for each of the scheduled routes within the Kern Regional Transit system should continue to be produced, the system is encouraged to develop a complete schedule and map of fixed route services. Such a brochure is an excellent marketing piece. The following elements should be included in a systemwide schedule brochure:

- basic information about the service,
- a systemwide map of Kern Regional Transit services, with stops and connecting public transit services clearly indicated,
- a fare schedule
- information about service for persons with disabilities
- a timetable for each of the routes , with timed transfers highlighted
- information about local dial-a-ride services,
- telephone numbers to call for additional information on any of the services listed.

The brochure should be designed and printed in color. Routes could be color coded or numbered, with the color or number used in the schedule matching an identifiable sign on the bus. Although the system covers a lot of ground, Kern Regional Transit is still small enough that information on all of its routes can fit easily into an well-designed system schedule. The schedule could be created as a large fold-out brochure or be developed to open as a booklet.

A system route map and information guide could be created using relatively inexpensive computer design and modern printing technology. Completed, the schedule brochure including all of the information listed above could be designed for under \$8,000. Large quantities of the systemwide information brochure could be printed for distribution on buses, at designated retailers and information centers, and by mail.

Telephone Information Service

A toll-free telephone number is an excellent way of providing information about the service available from Kern Regional Transit. At present Kern Regional Transit operates a toll-free general information number. Providing a single toll-free number for the entire service area is the most beneficial way to serve the clients of Kern Regional Transit. Advertising the toll-free number on buses, bus stop signs, the schedule brochure, in all print

advertisements, and on bus passes/tickets ensures that individuals with questions about the service always have access to a number to call.

Individuals who provide the information over the line when patrons call must be trained in answering questions and courteous. They also should have a strong understanding of regional transit options and be familiar with the schedules of connecting transit systems, including GET, Santa Clarita Transit and Metrolink trains.

Designating Information Contacts

With numerous potential information distribution points in the Bakersfield-Frazier Park corridor, it is possible for outdated information to continue being distributed. While having information sources throughout the corridor photocopying and distributing Kern Regional Transit materials is an excellent, very inexpensive method of making information available, the type of information that is given must be monitored on a regular basis.

One means of ensuring the availability of updated information to all potential Kern Regional Transit users is to maintain a mailing list of chambers of commerce, schools and colleges, libraries, senior and community centers, information services, transit operators (including Santa Clarita Transit, Metrolink and GET) and retailers who might serve as authorized information contacts for Kern Regional Transit. Initially, Kern Regional Transit could contact representatives in Frazier Park, Santa Clarita, Arvin, Lamont and Bakersfield to see if they would be willing participants in the program. Each might receive an information packet, updated on a regular basis, with route schedules, maps and a sign that could be posted to alert the public that Kern Regional Transit information was available at their location. Rewarding the selected information contacts with an official certificate from Kern Regional Transit and perhaps a marketing item with the Kern Regional Transit logo would be an inexpensive way to greatly increase the availability of information on the system. Not only is such a scheme an easy method for Kern Regional Transit to market its services, it also may bring potential customers to the retailers providing information.

6.5 SYSTEM USE

All efforts that can be made by the transit system to make riding the bus an easy, enjoyable way to travel should be exercised. This includes the need to continue providing drivers able to speak Spanish on the Lamont-Bakersfield run. In addition, a Spanish translation of the schedule brochure could be made available to passengers requesting one. Because this transit corridor finds a high proportion of Spanish-speaking residents in the Bakersfield-Lamont-Arvin area, a local telephone information line might be made available to the residents in these communities. It is possible that Kern Regional Transit could designate a local provider of services to Spanish speaking residents to staff this

telephone line. Otherwise, Kern Regional Transit's primary toll-free telephone information line could also be staffed by bilingual individuals.

Payment requirements that are cumbersome or confusing often can be disincentives for using transit. Kern Regional Transit has introduced pre-paid bus coupons, making it easier to use the service. Multi-ride passes of this sort also encourage ridership, because once an individual possesses the pass, each ride that he or she takes requires no additional out-of-pocket expense. Often, there is the impression that additional rides are free or cost very little. Kern Regional Transit is encouraged to continue the use of payment methods that encourage transit ridership. Payment coupons that can be used across routes, where one or more ride coupon can be removed from the pass depending on the number of zones through which a rider will travel, allow for easier use of the entire system network.

6.6 TARGETED MARKETING

The system changes being recommended in the service plan require special marketing consideration. There are many effective campaigns, from advertising in local newspapers to radio advertisements, to direct mail campaigns.

Advertising

A very effective campaign is both eye-catching and informative. Service between Bakersfield and Frazier Park, as well as to Santa Clarita has the potential for increased ridership from enhanced exposure to the route. It is easy to assume that by targeting marketing efforts in Frazier Park and other nearby communities, ridership to Bakersfield could increase and service to Santa Clarita could be well-used. There is potential, however, to gain riders from Bakersfield and Santa Clarita to travel to the towns between the two. These might be trips for recreational purposes, social visits, and so on.

A well-designed schedule brochure alone will serve as an advertising piece. Kern Regional Transit could make a mass mailing to residents of communities along the Frazier Park Corridor. By encouraging them to use the service and providing them with information about other services, Kern Regional Transit is also exposing these riders to new service between Bakersfield and Palmdale, as well as other existing routes.

Newspaper advertisements should be designed for a specific purpose. If the purpose is to inform the public about the changes proposed, the service should be described clearly, with a system map included. The toll-free telephone number should be included, and a schedule brochure mailed to anyone who calls. Direct mail campaigns can be used effectively as a means of both thanking system users and encouraging the first time rider on the new route.

A newspaper advertisement might promote the service between Bakersfield and the Kern River Valley, making available a coupon to be sent in or toll-free number to be telephoned in order to receive a copy of the schedule brochure and a complimentary ride coupon. There is a potential that advertising by radio and simply increasing the visibility of signs and brochures in Bakersfield could result in increased ridership on the Frazier Park corridor.

In Arvin, Lamont and Bakersfield, advertisements in Spanish language newspapers or on radio stations serving the Spanish-speaking community are highly encouraged, since this group comprises a significant proportion of the riding public along the Bakersfield-Lamont-Frazier Park corridor.

Special Events

A particular event or purpose makes for especially effective advertising. Kern Regional Transit's participation in major events provides both exposure for the system and enables individuals to experience a Kern Regional Transit ride. A number of special events could be planned. Possibilities include the following:

- Provide and promote special buses to Six Flags in Santa Clarita, operating both Saturday and Sunday. Advertising could be done in conjunction with discount coupons to the park.
- Schedule special shopper buses to Santa Clarita Valencia Town Center and Bakersfield during the holiday season.
- Display buses at fairs and festivals, as well as events for children and seniors.
- Offer services as parking shuttle buses at major events, including arts festivals, sporting events and fairs.
- Sponsor educational programs which may feature a speaker, a film on using the bus, and the opportunity to tour a Kern Regional Transit bus.
- Promote and sponsor a "take the bus to your destination" event with prizes and promotional items.
- Staff a booth at a major retail center served by Kern Regional Transit to distribute schedule brochures and Kern Regional Transit promotional items.

Efforts could also be made to focus on environmental issues. Providing a CNG bus as an exhibit at an Earth Day celebration, running special radio or newspaper advertisements

on days where air quality exceeds the standard, and working with environmentally friendly organizations to co-sponsor events may work in favor of Kern Regional Transit.

Special event schedules might be printed regularly in major local newspapers. All advertisements should include the Kern Regional Transit label and logo. Many transit operators have standing barter agreements with radio stations or newspapers for an advertising trade. For example, a radio station might advertise on a bus or at a bus stop in return for advertisement production and technical assistance, as well as air time for the transit system.

Additional opportunities exist for marketing Kern Regional Transit services. These include:

- Encourage the use of Kern Regional Transit Buses as charters.
- Provide schedule brochures to real estate agents and housing subdivision sales offices. Not only are agents delighted to advertise bus service to potential buyers as an amenity, but many individuals buying new homes in Frazier Park are retirees, moving from Santa Clarita and other parts of Ventura and Los Angeles Counties, who will be pleased to have a transit option to visit friends, medical services and retailers where they used to live.
- Provide welcome wagon organizations with schedule brochures and free ride coupons. These can be distributed to new residents of communities serviced by Kern Regional Transit.
- Negotiate rider discounts with local retailers. Patrons who purchase a multi-use bus coupon might present their pass to receive promotional items or discounts from merchants (One example of such an arrangement is found in Northern California, where AC Transit and retailers at a local mall in Oakland have teamed to give riders discounts at selected stores. The transit system displays the names of the retailers on a notice inside the vehicle). Such an arrangement could be attractive to new and small businesses located near Kern Regional Transit bus stops.

Public Relations

Advertising need not always be expensive. Some of the best advertising a transit system can get is by word of mouth and by making use of free access to the public and the press.

Having Kern Regional Transit representatives available to speak at major events or to school or senior groups on using the system is an excellent way for inexpensive transit advertising. Public speaking not only allows one to get across a simple message regarding the system's services and availability, but also allows the speaker to educate

potential riders how to use the system, making them better riders. Opportunities to address young and elderly populations should be welcomed. An effective speaker might allow the audience to address concerns about using the bus service, allaying fears and explaining the benefits of transit. Such speaking engagements also are opportune forums for distributing promotional items and schedule brochures.

In addition to public speaking, some local newspapers and radio stations, as well as local cable television providers, desperately seek informative news items and are glad to make available news in the public interest. Often, newspapers in smaller communities readily print press releases, word-for-word, that describe new bus service, new hours, or special promotional events. Because public transportation is a community service, published press releases can amount to fairly regular media exposure. Writing and faxing press releases does not have to be labor intensive and is an excellent means of free advertising. Kern Regional Transit should maintain and build a list of media contacts at local newspapers and radio stations in the communities it serves. Such contacts can also be very useful in planning major marketing events.

Newsletter

Kern Regional Transit's most valuable customers are those who are already using the service. It is through these riders that new riders are introduced to the services provided. Because Kern Regional Transit's riders have shown by their survey responses that they are generally very satisfied with the service, part of Kern Regional Transit's objective should be to maintain their loyalty. Although existing riders may require less persuasion than others to use Kern Regional Transit, it is up to the transit operator to continually assure them that their choice was a correct one. A newsletter is one of the ways in which Kern Regional Transit can maintain a dialogue with its ridership base. While staff can be open to calls and letters, not every passenger with a concern will call or write. Designed to be entertaining and informative, a newsletter is a forum in which transit issues of widespread concern can be discussed, transfer procedures can be clarified, and commonly asked questions answered. A newsletter can also describe interesting destinations that can be reached using Kern Regional Transit. A transit newsletter can be as simple as a one-page photocopied announcement printed quarterly or as complex as a brochure with informative articles and advertisements. A newsletter also provides a bit of informative reading material to the less frequent rider who is unaccustomed to bringing along a book or newspaper to pass the time on the ride.

Newsletters have been found to offer local retailers an advertising opportunity, with revenues from advertising space potentially offsetting the cost of producing the newsletter. While a newsletter could be created for systemwide distribution, advertising space in the newsletter distributed between Bakersfield and Frazier Park could be designated for merchants exclusively within the corridor.

Where to Target Marketing Efforts

Bakersfield actually represents the largest overall market for regional transit service in Kern County. The lack of available information about Kern Regional Transit may be a significant barrier to its use by Bakersfield residents, since these are individuals with the highest number of transit options allowing for a transfer to Kern Regional Transit intercity routes. Providing an information booth at major events such as art fairs, travel expositions, sporting events and Earth Day celebrations, is an excellent way for Kern Regional Transit to continue to boost awareness of its presence in the county.

Kern Regional Transit schedule brochures should be available at Meadows Field in Bakersfield, the Amtrak Station and Greyhound Station, as well as the Santa Clarita Metrolink station. The allure of Six Flags Magic Mountain may also boost transit use during summer months from Bakersfield and Frazier Park to Santa Clarita. Marketing efforts, perhaps in cooperation with the amusement park, may net significant ridership from Bakersfield.

Marketing in Spanish and English is a worthwhile strategy in the corridor, particularly around Lamont and Arvin. Current riders should be made to feel more comfortable using Spanish to ride Kern Regional Transit. Targeting current Arvin Transit riders, particularly now with the city's financial troubles, is a recommended pursuit for Kern Regional Transit.

Senior citizen groups and school groups remain excellent outlets for the distribution of materials on public transportation use, as well as strong forums for speakers representing Kern Regional Transit. Noting Frazier Park's status as a retirement community, targeted marketing efforts to retired persons may benefit Kern Regional Transit in this corridor.

CHAPTER 7. ALTERNATIVE FUELS

7.1 INTRODUCTION

Kern Regional Transit has been in the process of replacing buses and has built a fleet comprised of primarily diesel buses, with an increasing number of CNG buses among its acquisitions. It is important for Kern County to be aware of the present status of vehicle emissions standards and bus fueling technology. This chapter presents general information to be considered when making purchases of alternative fuel vehicles.

7.2 BACKGROUND TO ALTERNATIVE FUELS

The transit industry has been the focus of vehicle alternative fuel development work since the early 1980's. In 1979, the EPA gave notice to the industry of its intent to regulate particulate emissions from transit coaches to an extremely low level beginning sometime in the early 1990s. Although transit buses represent only a small fraction of total heavy-duty vehicle fleet, they were targeted for such regulation ahead of other vehicle categories for a number of reasons:

- The U.S. EPA receives more complaint calls and letters about emissions from urban transit buses than from any other type of vehicle.
- The concentration of transit buses in urban areas makes them visible emitters of particulates and "black smoke".
- Since buses are purchased and operated with public funds, stringent emissions regulations would not impose a direct economic hardship on industry or on the community.

Consequently, in 1985 urban transit buses were officially targeted by the EPA for very stringent emission regulations beginning in 1991, a full three years ahead of heavy-duty truck standards. The implication of these standards is that the transit industry is leading rather than following engine technology development, making transit vehicles the "test-sites" for new engine and fueling technology.

Since the regulations were adopted, urban and rural transit systems have been making new vehicle purchases of alternative fuel equipment. However, favorite fueling options can change very quickly. Just three years ago methanol appeared to be a promising alternative for large fleet operators. The Los Angeles Metropolitan Transit Authority (MTA) had a methanol demonstration fleet with several hundred vehicles. MTA announced in 1994 that it was abandoning its methanol program in favor of natural gas, when it purchased 196 CNG buses. In April 1995, MTA announced the purchase of 98 more CNG buses.

At the same time, just two years ago it seemed that limitations in battery technology would constrict electric buses to the role of short-run shuttles. Now a 35 foot electric coach is almost ready for roll-out. Furthermore, one transit agency in Tennessee (CARTA) has already made a significant commitment to electric vehicles. Of the 47 buses in its fleet, nine are electric.

This is not to say that electric vehicles are for every system. At the current level of technology regular battery replacement is necessary. Intercity systems like Kern Regional Transit are unlikely to use electric vehicles in the immediate future.

Around the country the current rule of thumb is that large transit agencies are converting to natural gas, while smaller properties are proceeding with clean diesel technology. Kern Regional Transit has been maintaining its course on vehicle replacement using both diesel and CNG buses. The discussion that follows supports the use of these fuels for Kern Regional Transit's current vehicle replacement program.

7.3 CLEAN AIR ACT OF 1990

The Federal Clean Air Act (CAA) contains provisions for mandating the use of alternative fuels in transit buses. The CAA also lists specific emission standards and implementation timetables for alternative fuel vehicle acquisitions. The clean fuels defined by the Clean Air Act are: methanol, ethanol, propane (LPG), electricity, and natural gas (CNG and LNG).

Prior to 1997, the transit industry may continue to use clean diesel fuel, particulate traps, or other diesel engine emission control technology to meet Federal emission standards. Beginning in 1997, Clean Air Act standards will effect all transit bus purchases, regardless of the size of the vehicle or the ambient air quality.

7.4 CALIFORNIA STATE LAWS AND REGULATIONS

The California Clean Air Act, signed into law in 1988, directed air quality management districts to adopt regulations to achieve state ambient air quality standards. The bill required the California Air Resources Board (CARB) to take necessary actions to reduce mobile source emissions by January 1, 1992. The new law required reductions in hydrocarbons, Nitrous Oxide (NOx), Carbon Monoxide (CO), particulates, and toxic contaminants.

The CARB regulations take precedent in controlling emissions to achieve air quality attainment. The Federal (EPA) requirements, as outlined by the Clean Air Act (CAA), typically follow those put forward by CARB.

On June 10, 1993, CARB adopted new emission standards and test procedures for transit buses, effective January 1, 1996. These new standards apply to all new or rebuilt bus engines, and are graduated to become more stringent over time. There is still some debate as to whether the new CARB standards will actually go into effect in 1996, or will be delayed until 1998. For the purposes of this discussion for Kern Regional Transit it is assumed that the new standards will become law. Therefore, bus purchases should be for technologies that meet the proposed 1996 standards. Figure 7-1 provides a chronological list of both the CARB and EPA emission standards.

Figure 7-1
EPA and CARB Emission Standards for
Urban Transit Bus Heavy-Duty Diesel Engines

Engine Model Year	Nitrogen Oxides (g/bhp-hr)	Hydrocarbons (g/bhp-hr)	Carbon Monoxide (g/bhp-hr)	Particulates (g/bhp-hr)
1988 EPA/CARB	10.0	1.3	15.5	.60
1990 EPA/CARB	6.0	1.3	15.5	.60
1991 EPA	5.0	1.3	15.5	.25
1991 CARB	5.0	1.3	15.5	.10
1993 EPA/CARB	5.0	1.3	15.5	.10
1994 EPA/CARB	5.0	1.3	15.5	.07
1996 CARB *	4.0	1.3	15.5	.05
1996 EPA	5.0	1.3	15.5	.05
1998 EPA/CARB	4.0	1.3	15.5	.05

* If adopted, CARB's proposed 1996 transit bus standard for NOx will preempt their 1998 standard.

Source: Cummins Engine Company, Inc.

Kern County is assigned by CARB to two distinct air basins, the Southeast Desert Air Basin (SEDAB) and the San Joaquin Valley Air Basin (SJVAB). In the SEDAB portion of Kern County, carbon monoxide standards are not exceeded; in the SJVAB portion of Kern County, mobile sources contribute the majority of all major air pollutants. The designation of separate air basins, in itself, should not affect alternative fuel vehicle purchase decisions by Kern Regional Transit. However, regulations set by the two Air Pollution Control Districts (APCD) within Kern County, the San Joaquin Valley Unified APCD and the Kern County APCD must be considered when selecting a fuel alternative.

7.5 OBJECTIVES OF AN ALTERNATIVE FUELS PROGRAM

Improving air quality and advancing new technology form a basis for the implementation of alternative fuel regulations. When looking specifically at Kern Regional Transit, it should be recognized that no single alternative fuel is the best choice for all operations. The decentralized nature of rural and intercity transit service makes it difficult for some operators to fully streamline all fueling and vehicle storage sites. A fuel alternative must be selected which will meet all the objectives of both Kern Regional Transit and Kern County's two APCDs.

The continued implementation of an alternative fuel program must begin with a clear definition of the objectives of the program. All transit operators want to be assured that the selected fuel meets the requirements of both the CARB and the EPA. However, there may be significant differences in the emphasis placed on costs versus emissions reductions. As a non-attainment area, Kern County may have greater incentives to improve emissions, regardless of the costs. In other areas, costs may be so constrained that this becomes the primary criteria for selecting the desired fuel.

The study team proposes the following general considerations for the continuation of the alternative fuels program. Suggested program objectives for Kern Regional Transit include:

- The alternative selected must be able to meet the EPA/CARB requirements into the foreseeable future including the proposed 1996 CARB emission standards.
- The fuel must be supported with commercially available vehicle technology appropriate for the type of fleet operated.
- The alternative must be proven to operate effectively for the long intercity runs of Kern Regional Transit.
- Additional capital and operating costs attributable to the fuel choice should be minimized to the extent possible.

- Fuel choice should not adversely affect fleet reliability.
- The fuel should be flexible enough to operate well at the varying altitudes and climate ranges in Kern County.
- Safety to passengers and employees must not be compromised.
- The chosen fuel must be readily available in Kern County.
- There should be passenger and community acceptance of the chosen fuel.

7.6 OVERVIEW OF FUELS

This section provides a general overview of the alternative fuels included in the Clean Air Act legislation which have the most relevance for transit applications. These fuels include:

- Clean Diesel
- Methanol
- Natural Gas (CNG/LNG)
- Propane (LPG)
- Electric (Battery)

In addition to the fuels listed above, there are a number of new and developing fuels which may provide alternatives in the future. These include potential reformulations of gasoline and diesel fuels, hydrogen based fuels and hythane (which combines hydrogen and natural gas). While these fuels offer tremendous potential for the future, there is currently no commercially available consistent source of these fuels, formulated to meet EPA standards. These fuels are not discussed in this report, due to their lack of availability in not only in Kern County, but throughout the region. There is also a lack of industry data on fuel use for these vehicles.

7.6.1 Clean Diesel

The diesel engine has been the preferred alternative in heavy-duty vehicle applications because of its efficiency, good reliability, long life, use of low cost fuel, and low operating costs. However, diesel engines create large amounts of two pollutants: Nitrogen Oxide (NOx) and particulate matter (PM).

Currently clean diesel is scheduled to be phased out as an alternative after 1997 due to its perceived inability to meet the proposed 1996 CARB standards. Two recent events, however, may allow diesel power plants to continue as a viable power source after 1997:

- Currently there are attempts being made at the Federal level to roll back some of the emissions standards for heavy vehicles. It is unclear at this time if this will be successful.
- More importantly, there have been significant improvements in diesel technology just within the last two years. Detroit Diesel (DDC), the largest manufacturer of engines for transit vehicles is very close to achieving the 1996 CARB emissions standards with its series 50 diesel engine. Just two years ago, it was believed that diesel technology had reached its theoretical maximum for reducing emissions. If DDC succeeds, diesel power plants will remain viable options through at least the end of the next decade.

Diesel is one of the most attractive fuel options because it is already in use and requires no changes to either the facilities or operating plan. Diesel fuel is safe and readily available. It has been used in Kern County without significant operations complications.

7.6.2 Methanol

Methanol, or methyl alcohol, is a clear, colorless liquid that can be made from a variety of sources including coal, natural gas, and some grains. All methanol used commercially in the United States is made from natural gas because this is the most economical method. Methanol, by volume, has slightly less than half the energy content of diesel fuel. Consequently, in order to have the same operating range a methanol fueled bus will typically require twice as much fuel as a standard diesel bus.

Methanol, like diesel fuel, is toxic and requires some special handling. Special materials are required, both in the vehicle fueling system and in the fuel dispensing and storage system (Methanol is incompatible with aluminum, rubber, and some sealing and gasket materials commonly used with petroleum-based fuels). Special safety equipment is also needed, including fire detection and suppression as methanol is readily ignitable and burns with a flame that is difficult to see in daylight. Hence, converting Kern Regional Transit's fueling procedures to methanol would result in added expense and necessitate enhanced safety procedures.

Methanol demonstration fleets have been operating at a number of transit agencies throughout the country for the past four years. Most of these operators have been using the Detroit Diesel 6V-92TA diesel engine modified to run on Methanol. This engine has demonstrated the ability to meet the 1996 CARB emission standards.

7.6.3 Natural Gas

Natural gas has been used as a transportation fuel for light and medium-duty trucks for many years. Most of these vehicles were gasoline powered vehicles that were converted to run on compressed natural gas (CNG). The use of CNG in heavy-duty engines has been led by the urban transit bus market. It has been embraced by many large transit agencies for large and small buses, as well as ferries. Some intercity transit providers, like Kern Regional Transit, are using CNG buses.

Natural gas is a domestic fuel source and is distributed throughout most of the United States by underground pipelines. The quality of pipeline gas can vary significantly. For engine certification testing purposes, CARB has adopted specifications for natural gas as a vehicular fuel.

Fuel storage on-board the transit bus requires tanks designed for high pressure gas. Because of the greater volume of gas required for comparable range, very large tanks are needed for CNG (typically, about four times the tank volume is needed compared to diesel fuel). The increased size and weight of the fuel tanks reduces passenger carrying capacity and contributes to greater tire wear. In smaller or lighter vehicles weight balancing and frame wear can be problematic.

It may benefit Kern Regional Transit to retain its concentration of CNG buses at its primary bus storage area in Bakersfield. Additional costs are associated with building and maintaining CNG filling stations. In outlying Kern County communities where only one or two vehicles may be stored, a conversion to CNG vehicles at this time would not be recommended.

Liquified natural gas (LNG) requires only about one-third the volume and one-third the weight of a CNG storage system. Use of LNG allows for more flexibility in bus design. However, it requires that natural gas be converted and stored in the liquid state.

The Cummins L-10 CNG engine has been certified to meet the 1994 CARB standards and should also meet the 1996 standards. CNG buses are operating in fleets around the country including SUN BUS in Southern California which recently added Orion coaches with roof mounted tanks to its fleet. Fleet demonstrations using LNG technology have been limited to date.

Natural gas is a less efficient fuel than diesel. About 1.3 gallons of LNG is equivalent to the power of 1 gallon of diesel fuel. The current price of natural gas is approximately \$.75 per gallon.

7.6.4 Propane

Liquified petroleum gas (LPG) is a mixture of propane, butane and butene. The United States supply of LPG comes from either "stripping" these gases during the process of collecting natural gas, or as a by-product of petroleum refining.

LPG is the third most commonly used automotive fuel in the U.S., surpassed only by gasoline and diesel. Most of the vehicles currently operating on LPG use "after-market" conversions of gasoline or diesel engines, modified because of the lower cost of LPG. LPG has been used mostly in the agricultural sector although there are some commercial operations with large LPG fleets. The *Los Angeles Times* has a large LPG fleet of delivery trucks, some with over 500,000 miles of service.

Development of heavy-duty LPG engines has been very limited, although both Cummins and Caterpillar are working on LPG conversions of existing diesel engines. No LPG engines have received CARB certification.

LPG is relatively safe to use as a motor fuel and it is significantly less toxic than diesel. Because it can cause frost-bite, many operators require maintenance staff to wear gloves when repairing or fueling LPG vehicles. Since LPG is a gas stored under pressure it does require larger fuel tanks than a diesel coach, although not nearly as large as CNG tanks. One of the benefits of LPG is that it burns very clean within the engine. This results in less engine wear and thus lower maintenance costs than a diesel engine.

Although there is a fairly well developed system of public refueling stations throughout California, most propane fleets are fueled centrally. On-site LPG storage tanks would require a significant amount of yard space.

7.6.5 Electric

Electric power has been used for public transit applications for more than a century. Power in traditional applications is generally received via fixed guideway "catenary" or overhead wire systems. Most people are familiar with the electric trolley and light rail systems found in many large U.S. cities. These systems require a tremendous amount of both capital and operating funds, and are clearly not a viable option for a system like Kern Regional Transit.

Until recently, technology limited the use of batteries in vehicles to applications such as golf carts and small delivery vans. Recent improvements have resulted in vehicles that can meet the needs of some public transit operators. Unfortunately, these vehicles are still handicapped by their limited range, power, and speed.

Specialty Vehicle Manufacturing has built a 30' transit coach that can carry 38 passengers (28 seated and 10 standing). This bus can travel 70 miles between battery "change-outs". A change-out takes only 15 minutes. Although the bus costs more than a traditional diesel (\$300,000 vs. \$250,000 for a 30' coach) it will have a significantly longer lifespan, as well as lower maintenance costs. Batteries and electric motors are much more reliable and easier to maintain than diesel engines.

From an air quality perspective, the most attractive alternative to gasoline and diesel powered vehicles is the electric vehicle. Electric vehicles produce virtually no emissions. Although emissions from power plants which provide energy for the electric vehicles must be considered, the overall net emissions are generally extremely small.

7.7 PROJECTED ENGINE DEVELOPMENT (5-10 YEARS)

In addition to the changes in standard engine development (diesels and natural gas), there are a number of promising technological developments taking place in the arena of electric drive vehicles. The two developments that appear to be the most promising in the near future are:

- Fuel Cells
- Hybrid Vehicles

Much of the work being done with these technologies is considered proprietary and thus detailed information is extremely limited. In discussions with vehicle developers, it is expected that hybrid vehicles should be available in five years, with fuel cell powered vehicles arriving in ten years. Generally, these vehicles may still have lower operating ranges than would be beneficial for Kern Regional Transit.

7.8 SUMMARY OF CURRENTLY AVAILABLE ENGINES

As of December 1994 only the following five engines had been certified to meet the 1994 CARB emissions standards:

- DDC Series 50 Diesel
- DDC 6V-92TA Methanol
- DDC 6V-92A Diesel Trap
- Cummins L-10 Diesel Trap
- Cummins L-10 CNG

All of these, including the DDC Series 50 Diesel, should also be capable of meeting the 1996 CARB standards. Of course any electric vehicle will meet the standards since electric vehicles emit no pollution (excluding pollution at the source).

The operating conditions must be taken into account in developing both the vehicle specifications and in making a fuel choice. The characteristics of each fuel make some perform better than others in particular operating environments. Depending on where alternative fuel vehicles are put into service in Kern County, they must operate well at both high and low altitudes, in cold winters and hot summers. Propane and CNG, both introduced to the engine as a gas, are well suited to cold weather environments. Methanol, particulate traps and clean diesel are better suited for areas with mild winters and warm summers. Electric engines, which at present are not be suitable for Kern Regional Transit's long routes, can operate well in a variety of weather conditions.

7.9 RECOMMENDED ALTERNATIVE FUEL PROGRAM

The matrix in Figure 7-2 summarizes the available fuels, assigning a ranking of the study team to each of the options.

Figure 7-2
Qualitative Fuel Ranking
(1=Highest Rating, 6=Lowest Rating)

Criteria	CNG	LNG	LPG	Electric	Methanol	Clean Diesel/ Particulate Trap
1. Meet CARB/EPA requirements	2	2	3	1	2	3
2. Commercially available vehicles	3	5	5	5	2	1
3. Operate in Kern Regional Transit environment	2	3	3	6	2	1
4. Minimize capital and operating costs	4	4	3	6	4	1
5. Fleet reliability and maintainability	3	3	3	2	3	1
6. Safety	1	3	3	1	2	1
7. Fuel availability	2	4	5	1	4	1
8. Passenger and community acceptance	2	2	2	1	2	2

Based on Kern Regional Transit's need for long distance vehicles, the continued use of diesel and CNG buses is a sensible option. Clean diesel has the smallest impact on operations and requires no modifications to the maintenance or fueling facilities. Clean diesel has met the 1994 emission standards, and should meet the 1996 standards without the addition of an expensive particulate trap. Clean diesel may remain an excellent future alternative.

CNG buses are growing in popularity and will continue to be introduced as a preferred alternative fuel vehicle for many transit systems. With increasing acceptance of CNG fueled vehicles, the industry may find reduced equipment costs. For Kern Regional transit to utilize CNG vehicles, it may be necessary to limit CNG buses to a particular centralized base location, such as Bakersfield, to facilitate refueling.

Kern Regional transit has moved in the right direction in the steps it has taken to address the need for alternative fuels in its fleet. Technologies do change, however, and innovations create new opportunities for efficiency. Kern Regional Transit should continue to monitor future changes in emission standards and engine technologies to determine the appropriate equipment for its future services.

CHAPTER 8. CAPITAL PLAN

This Chapter discusses the capital needs of the Bakersfield-Frazier Park and Bakersfield-Lamont fixed route services over the next five years. Capital needs are projected based on the service improvement plans discussed in Chapter 5. The primary capital needs will be replacement vehicles for the three vehicles used in this service. These vehicle needs remain the same whether or not these services are combined. Funding sources will be discussed in the financial plan presented in Chapter 9.

8.1 VEHICLES

Kern Regional Transit has been approved to receive five vehicles in 1996/97 through a CMAQ grant. One of these CNG vehicles would be designated to replace one of the vehicles currently used on the Bakersfield-Lamont service. Two additional new vehicles (one 24-passenger minibus and one 30-passenger bus) are anticipated to be needed in 1999/2000 to replace the vehicles currently used in the Frazier Park and Lamont Bakersfield fixed route service. The retired vehicles could be retained to use as a back-up if they are operationally viable. Figures 8-1 and 8-2 outline Capital needs for these services over the five year planning period assuming they remain separate. Figure 8-4 provides a combined capital plan assuming the Frazier Park services are through-routed via Lamont. The Financial Plan describes the funding resources to cover these capital needs.

8.2 CAPITAL AMENITIES

Two categories of capital amenities are provided for in this Capital Plan. They include parts inventories for vehicles used in the services. This is projected at \$1,200 per vehicle in 1995/96 dollars inflated at 3% annually. In addition, \$1,000 annually is set aside to address other capital needs as they arise for each service, \$2,000 if combined. These funds may be used to support a specific capital need related to these services or pooled to address a Kern Regional Transit System-wide need. Needs may include improved dispatch or radio equipment, computer equipment, child seats for vehicles, bike racks for vehicles or other such items.

8.3 CAPITAL SUMMARY

Figure 8-1 outlines the capital summary for the Bakersfield-Frazier Park service over five years. Figure 8-2 summarizes the capital needs for the Bakersfield-Lamont fixed route service over the next five years, and Figure 8-3 combines the Capital Needs.

Figure 8-1
Bakersfield-Frazier Park Capital Summary

<i>Frazier Pk-Bfield-Santa</i>	FY1994/95	FY1995/96	FY1996/97	FY1997/98	FY1998/99	FY1999/00
EXPENSES						
Route Analysis TDP	\$25,000					\$29,000
Vehicle Purchase						\$100,000
Parts Inventory	\$1,200	\$1,236	\$1,273	\$1,311	\$1,351	\$1,391
Capital Amenities	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
TOTAL SYSTEM COSTS	\$27,200	\$2,236	\$2,273	\$2,311	\$2,351	\$131,391

Figure 8-2
Bakersfield-Lamont Park Capital Summary

<i>Lamont</i>	FY1994/95	FY1995/96	FY1996/97	FY1997/98	FY1998/99	FY1999/00
Route Analysis TDP	\$25,000					\$29,000
Vehicle Purchase (1)			\$100,000			\$150,000
Parts Inventory	\$1,200	\$1,236	\$1,273	\$1,311	\$1,351	\$1,391
Capital Amenities	\$0	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
TOTAL SYSTEM COSTS	\$26,200	\$2,236	\$102,273	\$2,311	\$2,351	\$181,391

(1) One 24 passenger CNG minibus and one 30 passenger CNG or Clean Diesel coach.

Figure 8-3
Bakersfield-Frazier Park Service via Lamont (combined)

Combined FP-BK-SC an	FY1994/95	FY1995/96	FY1996/97	FY1997/98	FY1998/99	FY1999/00
Route Analysis TDP	\$25,000					\$29,000
Vehicle Purchase			\$100,000			\$250,000
Parts Inventory	\$2,400	\$2,472	\$2,546	\$2,623	\$2,701	\$2,782
Capital Amenities	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
TOTAL SYSTEM COSTS	\$29,400	\$4,472	\$104,546	\$4,623	\$4,701	\$283,782

CHAPTER 9. FINANCIAL PLAN

This Chapter presents a five year operating cost projection and five year capital program budget for the Bakersfield-Frazier Park and Bakersfield-Lamont fixed route services separately as well as in a combined scenario that through routes via Lamont. The funding sources for both capital and operating subsidy requirements are outlined in this chapter. The funding plan relies on sources that are currently used by Kern Regional Transit and are likely to be realized over the five year planning period. Although other funding sources are discussed, they are not included in the funding plan due to their unreliability.

9.1 OPERATING COST PROJECTIONS

These operating cost projections are valid for both service plan alternatives. Service hours are expected to remain constant at current levels under either scenario. Significant assumptions include:

- A 3% annual inflation factor applied to all costs, with the exception of vehicle revenue hour charges and fuel. The current provider contract holds the per vehicle revenue hour charge constant through 1996/97. For 1997/98 the costs are assumed to increase 9% to account for the lack of inflation applied over the three year contract period and 3% annually each year thereafter. This inflation rate may prove to be somewhat high for Kern County but will ensure conservative projections.
- A 5% annual inflation factor applied to fuel. Petroleum and its derivatives are purchased on the world market. Fuel prices have historically been more volatile than the economy as a whole.
- TDA revenues are inflated at 1.5% annually and STAF is held constant. These are conservative revenue estimates and reflect a continuing slow economy in Kern County and continuing State budget problems.
- An annual marketing budget of \$5,000 per service (i.e. 2-3% of annual operating) is inflated at 3% annually. A portion of this funding would be used to market these specific services and a portion would go toward system-wide marketing.
- Fare projections are based on current average fare collection on these services, times the projected annual ridership.

Figure 9-1
Bakersfield-Frazier Park-Santa Clarita Expenses & Operating Statistics

Frazier Pk-Bfield-Santa Clarita	FY94/95 EST	FY 1995/96	FY 1996/97*	FY1997/98	FY 1998/99	FY 1999/00
<u>EXPENSES</u>						
Contractor Base Costs (1)	\$76,496	\$76,496	\$87,424	\$95,292	\$98,151	\$101,095
Vehicle/Equip. Maintenance (2)	\$5,000	\$5,150	\$5,305	\$5,464	\$5,628	\$5,796
Fuel(3)	\$6,300	\$6,615	\$6,946	\$7,293	\$7,658	\$8,041
Shelter Maintenance	\$500	\$1,000	\$1,030	\$1,061	\$1,093	\$1,126
Insurance (4)	\$3,164	\$3,164	\$3,616	\$3,724	\$3,836	\$3,951
Marketing	\$500	\$5,250	\$5,408	\$5,570	\$5,737	\$5,909
County Administration (5)	\$9,000	\$9,270	\$9,548	\$9,835	\$10,130	\$10,433
TOTAL COSTS	\$100,960	\$106,945	\$119,276	\$128,238	\$132,231	\$136,352
TOTAL FARES (6)	\$5,319	\$7,880	\$13,500	\$16,875	\$20,250	\$23,288
<u>OPERATING STATISTICS</u>						
Ridership	2,700	4,000	6,000	7,500	9,000	10,350
Vehicle Service Hours	2,800	2,800	3,200	3,200	3,200	3,200
Cost/Passenger (7)	\$36.22	\$25.95	\$19.28	\$16.60	\$14.27	\$12.79
Cost/Service Hour	\$34.93	\$37.06	\$36.14	\$38.91	\$40.12	\$41.38
Passenger/VRH	1.0	1.4	1.9	2.3	2.8	3.2
Farebox Recovery	5.4%	7.6%	11.7%	13.6%	15.8%	17.6%

*Institute Santa Clarita Service

(1) Contract through 1996/97 provides \$27.32 per vehicle revenue hour, inflated at 3% in new contract years.

(2) Estimate based on current operating costs excluding contractor, fuel costs and administrative overhead.

(3) Fuel costs based on 1994/95 cost of \$.60 gallon (diesel) x 10,500 gallons (based on 94,500 miles/9 miles per gallon), inflated at 5% annually.

(4) Insurance costs based on contract rate of \$1.13 per vehicle revenue hour, inflated at 3% in new contract years.

(5) County administration based on historic 10% of operating costs, inflated at 3%.

(6) Fare revenue calculated at an average fare collection of \$1.97 per passenger in 1995/96 and \$2.25 per passenger following implementation of the Santa Clarita service in 1996/97.

(7) Cost/passenger, cost/service hour, & farebox ratio calculated exclusive of Insurance.

Figure 9-2
Lamont Expenses and Operating Statistics

Lamont	FY94/95 EST	FY 1995/96	FY 1996/97	FY1997/98	FY 1998/99	FY 1999/00
<u>EXPENSES</u>						
Contractor Base Costs (1)	\$71,032	\$71,032	\$71,032	\$73,163	\$75,358	\$77,619
Vehicle/Equip. Maintenance (2)	\$5,000	\$5,150	\$5,305	\$5,464	\$5,628	\$5,796
Fuel(3)	\$4,500	\$4,725	\$4,961	\$5,209	\$5,470	\$5,743
Shelter Maintenance	\$500	\$1,050	\$1,082	\$1,114	\$1,147	\$1,182
Insurance (4)	\$2,938	\$2,938	\$2,938	\$3,085	\$3,239	\$3,401
Marketing	\$500	\$5,250	\$5,408	\$5,570	\$5,737	\$5,909
County Administration (5)	\$8,500	\$8,755	\$9,018	\$9,288	\$9,567	\$9,854
TOTAL COSTS	\$92,970	\$98,900	\$99,742	\$102,893	\$106,145	\$109,504
TOTAL FARES (6)	\$24,382	\$28,040	\$30,846	\$33,928	\$35,623	\$37,407
<u>OPERATING STATISTICS</u>						
Ridership	24,880	28,612	31,475	34,620	36,350	38,170
Vehicle Service Hours	2,600	2,600	2,600	2,600	2,600	2,600
Cost/Passenger (7)	\$3.62	\$3.35	\$3.08	\$2.88	\$2.83	\$2.78
Cost/Service Hour	\$34.63	\$36.91	\$37.23	\$38.39	\$39.58	\$40.81
Passenger/VRH	9.6	11.0	12.1	13.3	14.0	14.7
Farebox Recovery	27.1%	29.2%	31.9%	34.0%	34.6%	35.3%

(1) Contract through 1996/97 provides \$27.32 per vehicle revenue hour, inflated at 3% in new contract years.

(2) Estimate based on current operating costs excluding contractor, fuel costs and administrative overhead.

(3) Fuel costs based on 1994/95 cost of \$.60 gallon (diesel) x 7,435 (based on 67,000 miles/9 miles per gallon), inflated at 5% annually.

(4) Insurance costs based on contract rate of \$1.13 per vehicle revenue hour, inflated at 3% in new contract years.

(5) County administration based on historic 10% of operating costs, inflated at 3%.

(6) Fare revenue calculated at an average fare collection of \$.98 per passenger.

(7) Cost/passenger, cost/service hour, & farebox ratio calculated exclusive of Insurance.

Figure 9-3
Combined Services via Lamont Expenses and Operating Statistics

Combined FP-BK-SC and Lamont	FY94/95 EST	FY 1995/96	FY 1996/97*	FY1997/98	FY 1998/99	FY 1999/00
<u>EXPENSES</u>						
Contractor Base Costs (1)	\$147,528	\$147,528	\$177,580	\$193,562	\$199,369	\$205,350
Vehicle/Equip. Maintenance (2)	\$10,500	\$11,025	\$11,356	\$11,696	\$12,047	\$12,409
Fuel(3)	\$10,800	\$11,000	\$12,000	\$12,600	\$13,230	\$13,892
Shelter Maintenance	\$500	\$1,000	\$1,030	\$1,061	\$1,093	\$1,126
Insurance (4)	\$6,102	\$6,102	\$7,345	\$7,565	\$7,792	\$8,026
Marketing	\$500	\$10,000	\$10,300	\$10,609	\$10,927	\$11,255
County Administration (5)	\$17,500	\$18,025	\$18,566	\$19,123	\$19,696	\$20,287
TOTAL COSTS	\$193,430	\$204,680	\$238,177	\$256,217	\$264,155	\$272,344
TOTAL FARES (6)	\$29,920	\$35,750	\$45,000	\$50,400	\$56,400	\$58,200
<u>OPERATING STATISTICS</u>						
Ridership	27,200	32,500	37,500	42,000	47,000	48,500
Vehicle Service Hours	5,400	5,400	6,500	6,500	6,500	6,500
Cost/Passenger (7)	\$6.89	\$6.11	\$6.16	\$5.92	\$5.45	\$5.45
Cost/Service Hour	\$34.69	\$36.77	\$35.51	\$38.25	\$39.44	\$40.66
Passenger/VRH	5.0	6.0	5.8	6.5	7.2	7.5
Farebox Recovery	16.0%	18.0%	19.5%	20.3%	22.0%	22.0%

*Institute Santa Clarita Service-connect through Lamont

(1) Contract through 1996/97 provides \$27.32 per vehicle revenue hour, inflated at 3% in new contract years.

(2) Estimate based on current operating costs excluding contractor, fuel costs and administrative overhead.

(3) Fuel costs based on 1994/95 cost of \$.60 gallon (diesel) x 17,500 gallons (based on 157,000 miles/9 miles per gallon), inflated at 5% annually.

(4) Insurance costs based on contract rate of \$1.13 per vehicle revenue hour, inflated at 3% in new contract years.

(5) County administration based on historic 10% of operating costs, inflated at 3%.

(6) Fare revenue calculated at an average fare collection of \$1.10 per passenger in 1995/96 and \$1.20 per passenger following implementation of the Santa Clarita Service in 1996/97.

(7) Cost/passenger, cost/service hour, & farebox ratio calculated exclusive of Insurance.

9.2 OPERATING REVENUES

As shown in Figures 9-3 and 9-4, Kern Regional Transits' primary operating funding sources are Local Transportation Funds (LTF) including Transportation Development Act (TDA) funds and State Transit Assistance Funds (STAF) and Farebox revenues. These are the funding sources that support these services. A brief description of these sources and the assumptions used in the revenue projections follows:

Local Transportation Funds (LTF)

Transportation Development Act (TDA) Funds - SB 325 created a fund for transportation purposes in 1972. These funds are derived from a 1/4 cent sales tax and distributed by the Kern Council of Governments (Kern COG) to the County and the incorporated cities of Kern County. TDA funds are intended to be "transit first" funding, meaning that funds are expected to be spent on transit projects to the extent that such projects are meeting the "transit needs that are reasonable to meet." There is no universally accepted definition of reasonable to meet, and individual jurisdictions must make their own determination. TDA funds can be used for capital expenditures or operations or a combination thereof. Considering the economic condition of Kern County and its impact on sales tax receipts, these funds are conservatively projected to increase at 1.5% annually.

State Transit Assistance Funds (STA) - STA is provided to transit agencies in two ways - as a revenue and as a population based subsidy for transit capital and operating needs. The amount of these funds has fluctuated over the past several years. The revenue based portion of STA will continue to decline, and that discretionary population based STA will remain fairly constant at current levels. Kern COG projects Kern Regional Transit's 1995/96 revenue based STA at \$3,437, and population based STA at \$123,675. Revenue based STA is projected to become negligible in later years, with discretionary STA increasing slightly to compensate. The overall impact is stable STAF revenues.

Figure 9-4
Kern Regional Transit LTF Funding Projections

Revenues	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00
TDA	\$2,326,220	\$2,675,981	\$2,716,121	\$2,756,863	\$2,798,215	\$2,840,189
STAF	\$187,000	\$127,112	\$127,112	\$127,112	\$127,112	\$127,112
Total	\$2,513,220	\$2,803,093	\$2,843,233	\$2,883,975	\$2,925,327	\$2,967,301

Farebox Revenues

The Frazier Park-Bakersfield fare collection is currently \$1.97 per passenger. This is projected to increase to \$2.25 per passenger when the service extension to Santa Clarita is added in 1996/97. The Lamont-Bakersfield service fare collection is currently \$.98 per passenger. This fare collection level is anticipated to continue on this service. For the combined scenario fare collection per passenger is projected at \$1.10 per passenger in 1995/96 and \$1.20 following implementation of the Santa Clarita extension and rerouting Frazier Park services through Lamont.

9.3 CAPITAL REVENUES

California Congestion Management/Air Quality (CMAQ)

The Intermodal Surface Transportation Act (ISTEA) created several transportation funding opportunities including CMAQ. CMAQ funds are apportioned to non-attainment areas as defined in the Federal Air Clean Air Act. Kern County is a non-attainment area and receives CMAQ Funds. Kern Regional Transit has been successful in acquiring CNG and Diesel vehicles through this source. Kern Regional Transit is scheduled to receive 5 CNG buses with CMAQ funds in 1996/97. One of these vehicle could be used to replace a vehicle on the Bakersfield-Lamont service. CMAQ funds should be applied for to replace two vehicles for these services in 1999/00.

FTA Section 18 Funds

Federal Section 18 Discretionary Funds are subject to statewide competition. The State generally attempts to provide some of these funds to each county in the State. These funds require a 20% local match. TDA and STA funds can be used for that purpose. These funds are a declining revenue source and are not included in this plan as a primary source.

Surface Transportation Funds (STP)

This funding source is the result of the ISTEA legislation passed in 1991. These are considered "flexible funds" in that they may be used for either streets/roads or transit projects. These funds are administered through Kern COG and are currently dedicated to road projects.

AB 2766 Vehicle Registration Surcharge

AB 2766 provides for the collection of an additional \$2.00 to \$4.00 at the time of vehicle registration to support the activities of the San Joaquin Valley Unified Air

Quality District and the Southeast Desert Air Quality District. These funds are then distributed on a competitive basis to projects anticipated to significantly reduce vehicle emissions. The San Joaquin Valley Unified Air Quality District levies a \$4.00 per vehicle charge. The San Joaquin District has a formal point system by which all projects are rated. The highest scoring projects are funded. The criteria for scoring and the maximum possible point score in each category include:

- Emission Reduction (35 points)
- Experience of the Applicant (10 points)
- Project Cost Comparison (10 points)
- Broad Based Application (15 points)
- Dedicated Co-Funding (15 points)
- Other Desirable Factors (15 points)

In 1994/95 the San Joaquin District allocated a total of \$3.6 million dollars to 32 projects in their district. There were a total of 129 applications for funding.

The Southeast Desert Air Quality District levy's a \$2.00 per vehicle charge. The Desert District has an informal point system and prefers projects that actually result in emissions reduction as opposed to planning or promotional type projects. In 1994/95 a total \$145,000 was distributed to four projects. A total of 10 applications were received.

Competition for AB2766 funds is significant and while Kern Regional Transit should continue to pursue this funding it is not included as a primary capital revenue source.

Transportation Sales Tax

Many counties throughout the State have enacted local sales tax measures which provide a dedicated source of between 1/4 and 1 percent of sales tax to transportation projects. Generally these funds are used for both roadway and transit projects. Counties with transportation sales taxes are known as "self help" counties, and generally have a higher priority when competing for funding from the State. Kern County has not enacted a transportation sales tax to date. No transportation sales tax funds are assumed in the Kern Regional Transit financial plan.

Proposition 116 Rail Bond Funding

In 1990 California residents passed Proposition 116 Rail Bonds to provide capital assistance to transit agencies. These funds are fully committed in Kern County to High Speed Rail and Amtrak projects. No Rail Bond funds are included in this Financial Plan.

9.4 SUMMARY FUNDING PLAN

Figures 9-6, 9-7 and 9-8 outline the operating and capital costs and revenue source projections for the continued operation of the fixed route services for Bakersfield-Frazier Park-Santa Clarita, Bakersfield-Lamont and the combined Bakersfield-Lamont-Frazier Park-Santa Clarita service respectively.

Figure 9-5
Bakersfield-Frazier Park Financial Plan

<i>Frazier Pk-Bfield-Santa Clarita</i>	FY1994/95	FY1995/96	FY1996/97	FY1997/98	FY1998/99	FY1999/00
<u>EXPENSES</u>						
Operating Cost	\$100,960	\$106,945	\$119,276	\$128,238	\$132,231	\$136,352
Route Analysis TDP	\$25,000	\$0	\$0	\$0	\$0	\$29,000
Vehicle Purchase	\$0	\$0	\$0	\$0	\$0	\$100,000
Parts Inventory	\$1,200	\$1,236	\$1,273	\$1,311	\$1,351	\$1,391
Capital Amenities	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
TOTAL SYSTEM COSTS	\$128,160	\$109,181	\$121,549	\$130,550	\$134,582	\$267,743
<u>REVENUES</u>						
Passenger Fares	\$5,319	\$7,880	\$13,500	\$16,875	\$20,250	\$23,288
FTA Section 26 Planning	\$25,000					\$29,000
LTF (TDA and STAF)	\$97,841	\$101,301	\$108,049	\$113,675	\$114,332	\$127,455
CMAQ Capital						\$88,000
TOTAL REVENUES	\$128,160	\$109,181	\$121,549	\$130,550	\$134,582	\$267,743
<i>% of LTF County Total</i>	3.9%	3.6%	3.8%	3.9%	3.9%	4.3%

Figure 9-6
Bakersfield-Lamont Financial Plan

Lamont	FY1994/95	FY1995/96	FY1996/97	FY1997/98	FY1998/99	FY1999/00
<u>EXPENSES</u>						
Operating Cost	\$92,970	\$98,900	\$99,742	\$102,893	\$106,145	\$109,504
Route Analysis TDP	\$25,000	\$0	\$0	\$0	\$0	\$29,000
Vehicle Purchase	\$0	\$0	\$100,000	\$0	\$0	\$150,000
Parts Inventory	\$1,200	\$1,236	\$1,273	\$1,311	\$1,351	\$1,391
Capital Amenities	\$0	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
TOTAL SYSTEM COSTS	\$119,170	\$101,136	\$202,015	\$105,204	\$108,496	\$290,895
<u>REVENUES</u>						
Passenger Fares	\$24,382	\$28,040	\$30,846	\$33,928	\$35,623	\$37,407
FTA Section 26 Planning	\$25,000					\$29,000
LTF (TDA and STAF)	\$69,788	\$73,096	\$83,170	\$71,276	\$72,873	\$92,488
CMAQ Capital	\$0		\$88,000			\$132,000
TOTAL REVENUES	\$119,170	\$101,136	\$202,015	\$105,204	\$108,496	\$290,895
% of LTF County Total	2.8%	2.6%	2.9%	2.5%	2.5%	3.1%

Figure 9-7
Combined Bakersfield-Lamont-Frazier Park-Santa Clarita Financial Plan

Combined FP-BK-SC and Lamon	FY1994/95	FY1995/96	FY1996/97	FY1997/98	FY1998/99	FY1999/00
<u>EXPENSES</u>						
Operating Cost	\$193,430	\$204,680	\$238,177	\$256,217	\$264,155	\$272,344
Route Analysis TDP	\$25,000	\$0	\$0	\$0	\$0	\$29,000
Vehicle Purchase	\$0	\$0	\$100,000	\$0	\$0	\$250,000
Parts Inventory	\$2,400	\$2,472	\$2,546	\$2,623	\$2,701	\$2,782
Capital Amenities	\$0	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
TOTAL SYSTEM COSTS	\$220,830	\$209,152	\$342,723	\$260,839	\$268,856	\$556,127
<u>REVENUES</u>						
Passenger Fares	\$29,920	\$35,750	\$45,000	\$50,400	\$56,400	\$58,200
FTA Section 26 Planning	\$25,000					\$29,000
LTF (TDA and STAF)	\$165,910	\$173,402	\$209,723	\$210,439	\$212,456	\$248,927
CMAQ Capital			\$88,000			\$220,000
TOTAL REVENUES	\$220,830	\$209,152	\$342,723	\$260,839	\$268,856	\$556,127
% of LTF County Total	6.6%	6.2%	7.4%	7.3%	7.3%	8.5%

9.5 OVERALL KERN REGIONAL SYSTEM IMPACT

The services in the Frazier Park and Lamont Corridors provide valuable transportation meeting the needs of Bakersfield, Lamont and Frazier Park residents. The service plan recommends an expansion of the Bakersfield-Frazier Park service to provide one additional trip from Bakersfield to Frazier Park and extend service to Santa Clarita. In addition, it is recommended that the Frazier Park-Santa Clarita service be routed through Lamont to increase service on the very popular Lamont-Bakersfield service. The service expansion will increase the costs of service provision by adding approximately 700 annual vehicle revenue service hours. However, this increase in costs will be offset by increased ridership. As Figure 9-8 indicates the overall percentage of Kern Regional Transit financial resources that will need to be dedicated to the services in this corridor will only increase .7% over the five year period. Total fare box recovery in the corridor will increase to 22% and ridership will increase 78% over the five year period.

Figure 9-8
Combined Services-Overall Corridor Resource Commitment

	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00
Combined Services	\$220,830	\$209,152	\$242,723	\$260,839	\$268,856	\$306,127
LTF Supplement Required	\$165,910	\$173,402	\$209,723	\$210,439	\$212,456	\$248,927
% of Total LTF	6.6%	6.2%	7.4%	7.3%	7.3%	8.5% ⁽¹⁾

(1) High level one year only due to vehicle purchase match requirement.

APPENDIX A
On-Board and Telephone Surveys

KERN REGIONAL PASSENGER SURVEY - FRAZIER PARK

KERN REGIONAL TRANSIT NEEDS YOUR HELP TO PLAN BETTER INTERCITY BUS SERVICE. PLEASE TAKE A MOMENT TO FILL OUT THIS FORM DURING YOUR RIDE. IF YOU HAVE ALREADY COMPLETED A SURVEY (ANYTIME THIS WEEK) PLEASE DO NOT COMPLETE ANOTHER ONE. WHEN YOU HAVE FINISHED THE SURVEY, PLEASE RETURN IT TO THE BUS DRIVER.

Where did you <u>start</u> this ONE WAY trip and where are you going?	
ORIGIN	DESTINATION
1a. I <u>started</u> from: (not where you boarded the bus; list nearest cross streets or address of where your trip started) _____ _____	2a. I am <u>going</u> to: (list nearest cross streets or address or your ultimate destination) _____ _____
1b. Please specify the town in which you boarded the bus: <input type="checkbox"/> Lamont/Weedpatch <input type="checkbox"/> Bakersfield <input type="checkbox"/> Lake of the Woods <input type="checkbox"/> Frazier Park <input type="checkbox"/> Pine Mtn. Club <input type="checkbox"/> Arvin <input type="checkbox"/> Lebec <input type="checkbox"/> Pinon Pines <input type="checkbox"/> Other _____	2b. Please specify the town where you will get off the bus: <input type="checkbox"/> Lamont/Weedpatch <input type="checkbox"/> Bakersfield <input type="checkbox"/> Lake of the Woods <input type="checkbox"/> Frazier Park <input type="checkbox"/> Pine Mtn. Club <input type="checkbox"/> Arvin <input type="checkbox"/> Lebec <input type="checkbox"/> Pinon Pines <input type="checkbox"/> Other _____

3. What is the main purpose of this particular trip? If you are going HOME now, what WAS the purpose of your trip?
☐ Work ☐ Medical/dental appointment ☐ Shopping/personal
☐ School/college (which one?: _____)
☐ Other (what purpose?: _____)

4. Today, will you (or did you) use the bus for both directions of your trip?
☐ Yes ☐ No ♦ If no, how did you complete the trip in other direction? _____

5. How often do you use this Intercity Bus Service?
☐ 5 or more days per WEEK ☐ 2 to 4 days per WEEK ☐ 1 to 4 days per MONTH ☐ less than once a MONTH

6. Do you transfer to or from another transit service? ☐ Yes ☐ No
 IF YES ♦ Which service? ☐ GET ☐ Arvin Transit ☐ Greyhound
 ☐ Orange Belt ☐ Kern Regional Transit ☐ Other _____

7. What one change would you most like to see on this Intercity Bus Service? _____

8. Was a car available for this particular trip? ☐ Yes ☐ No

9. How do you rate the Intercity Bus Service? ☐ Excellent ☐ Good ☐ Fair ☐ Poor

10. Is there somewhere you would like to go on the Intercity Bus Service that it currently does not go?

11. How old are you? ☐ 15 and under ☐ 16-18 ☐ 19-24 ☐ 25-44 ☐ 45-61 ☐ 62 and over

12. Income: ☐ Under \$10,000 ☐ \$10,000-\$19,999 ☐ \$20,000-\$39,999 ☐ \$40,000 and over

13. What is your gender? ☐ Male ☐ Female

THANKS FOR YOUR HELP. PLEASE LEAVE THE SURVEY WITH THE DRIVER.

ENCUESTA DEL SISTEMA REGIONAL DE PASAJEROS DE KERN - FRAZIER PARK

El sistema de tránsito Regional de Kern necesita de su ayuda para planear el mejoramiento del Sistema de Autobús entre Ciudades. Por favor tome un momento para llenar esta página durante su viaje. Si Ud. ya ha llenado esta encuesta (durante esta semana) por favor no llene otra nuevamente. Cuando haya completado esta encuesta, por favor devuelva esta hoja al motorista.

¿Dónde comenzó su viaje de ida y cuál es su destino?	
PREGUNTAS ACERCA DEL PUNTO DE ORIGEN	PREGUNTAS ACERCA DEL DESTINO
<p>1a. Comencé este viaje de: <i>(No donde se embarcó pero si mencione las calles que se cruzan más cerca de donde su viaje comenzó)</i></p> <p>_____</p> <p>_____</p> <p>1b. Favor de especificar el nombre de la ciudad donde Ud. abordó este autobús:</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <input type="checkbox"/> Lamont/Weedpatch <input type="checkbox"/> Lake of the Woods <input type="checkbox"/> Pine Mtn. Club <input type="checkbox"/> Lebec <input type="checkbox"/> Other _____ </div> <div style="width: 48%;"> <input type="checkbox"/> Bakersfield <input type="checkbox"/> Frazier Park <input type="checkbox"/> Arvin <input type="checkbox"/> Pinon Pines </div> </div>	<p>2a. Estoy a camino de: <i>(Mencione las calles más cercanas que se cruzan o la dirección de su destino final)</i></p> <p>_____</p> <p>_____</p> <p>2b. Favor de especificar el nombre de la ciudad donde Ud. dejará este autobús:</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <input type="checkbox"/> Lamont/Weedpatch <input type="checkbox"/> Lake of the Woods <input type="checkbox"/> Pine Mtn. Club <input type="checkbox"/> Lebec <input type="checkbox"/> Other _____ </div> <div style="width: 48%;"> <input type="checkbox"/> Bakersfield <input type="checkbox"/> Frazier Park <input type="checkbox"/> Arvin <input type="checkbox"/> Pinon Pines </div> </div>

3. ¿Cuál es el motivo principal de este viaje en particular? Si está regresando a su casa, ¿por qué hizo este viaje?

- ☐ Trabajo
☐ Escuela/Universidad (¿cuál?) _____

☐ Cita con el Médico o el Dentista
☐ Otro _____

☐ De compras/personal

4. ¿Hoy, usará (o usó) el autobús de ida y vuelta?

- ☐ Sí
 ☐ No → (si la respuesta es 'no', ¿cómo completó su viaje de regreso?) _____

5. ¿Con qué frecuencia usa Ud. este Sistema de Autobús entre Ciudades?

- ☐ 5 o más días por SEMANA
 ☐ 2 a 4 días por SEMANA
 ☐ 1 a 4 días por MES
 ☐ Menos de un día por MES

6. ¿Se transfiere Ud. de o para otro servicio de tránsito? ☐ Sí ☐ No

Si la respuesta es 'sí', → ¿cuál es el servicio?

- ☐ GET
 ☐ Arvin Transit
 ☐ Greyhound
 ☐ Orange Belt
 ☐ Kern Regional Transit
 ☐ Other _____

7. ¿Cuál es el cambio que más le gustaría ver en el Sistema de Autobús entre Ciudades? _____

8. ¿Tenía Ud. un carro disponible para este viaje en particular? ☐ Sí ☐ No

9. ¿Cómo clasificaría Ud. el servicio que ofrece el Sistema de Autobús entre Ciudades?

- ☐ Excelente
 ☐ Bueno
 ☐ Regular
 ☐ Malo

10. ¿Hay algún lugar que a Ud. le gustaría que el Sistema de Autobús entre Ciudades recorriera, y que no está en la ruta ahora? _____

11. Mi edad es: ☐ 15 años o menos ☐ 16 a 18 años ☐ 19 a 24 años ☐ 25 a 44 años ☐ 45 a 61 años ☐ 62+

12. Sus ingresos: ☐ Menos de \$10,000 ☐ \$10,000 a \$19,999 ☐ \$20,000 a \$39,999 ☐ Más de \$40,000

13. ¿Es Ud. del sexo ☐ Femenino ☐ Masculino?

GRACIAS POR SU AYUDA. POR FAVOR ENTREGUE ESTA HOJA AL MOTORISTA.

KERN REGIONAL PASSENGER SURVEY - LAMONT

KERN REGIONAL TRANSIT NEEDS YOUR HELP TO PLAN BETTER INTERCITY BUS SERVICE. PLEASE TAKE A MOMENT TO FILL OUT THIS FORM DURING YOUR RIDE. IF YOU HAVE ALREADY COMPLETED A SURVEY (ANYTIME THIS WEEK) PLEASE DO NOT COMPLETE ANOTHER ONE. WHEN YOU HAVE FINISHED THE SURVEY, PLEASE RETURN IT TO THE BUS DRIVER.

Where did you <u>start this ONE WAY</u> trip and where are you <u>going</u> ?	
ORIGIN	DESTINATION
<p>1a. I <u>started</u> from: (not where you boarded the bus; list nearest cross streets or address of where your trip started)</p> <p>_____</p>	<p>2a. I am <u>going</u> to: (list nearest cross streets or address or your ultimate destination)</p> <p>_____</p>
<p>1b. Please specify the town in which you boarded the bus:</p> <p><input type="checkbox"/> Bakersfield <input type="checkbox"/> Lamont</p> <p><input type="checkbox"/> Weedpatch <input type="checkbox"/> Arvin</p>	<p>2b. Please specify the town where you will get off the bus:</p> <p><input type="checkbox"/> Bakersfield <input type="checkbox"/> Lamont</p> <p><input type="checkbox"/> Weedpatch <input type="checkbox"/> Arvin</p>

3. What is the main purpose of this particular trip? If you are going HOME now, what WAS the purpose of your trip?

☐ Work ☐ Medical/dental appointment ☐ Shopping/personal

☐ School/college (which one?: _____)

☐ Other (what purpose?: _____)

4. Today, will you (or did you) use the bus for both directions of your trip?

☐ Yes ☐ No ♦ If no, how did you complete the trip in other direction? _____

5. How often do you use this Intercity Bus Service?

☐ 5 or more days per WEEK ☐ 2 to 4 days per WEEK ☐ 1 to 4 days per MONTH ☐ less than once a MONTH

6. Do you transfer to or from another transit service? ☐ Yes ☐ No

IF YES ♦ Which service? ☐ GET ☐ Arvin Transit ☐ Greyhound

☐ Orange Belt ☐ Kern Regional Transit ☐ Other _____

7. What one change would you most like to see on this Intercity Bus Service? _____

8. Was a car available for this particular trip? ☐ Yes ☐ No

9. How do you rate the Intercity Bus Service? ☐ Excellent ☐ Good ☐ Fair ☐ Poor

10. Is there somewhere you would like to go on the Intercity Bus Service that it currently does not go?

11. How old are you? ☐ 15 and under ☐ 16-18 ☐ 19-24 ☐ 25-44 ☐ 45-61 ☐ 62 and over

12. Income: ☐ Under \$10,000 ☐ \$10,000-\$19,999 ☐ \$20,000-\$39,999 ☐ \$40,000 and over

13. What is your gender? ☐ Male ☐ Female

THANKS FOR YOUR HELP. PLEASE LEAVE THE SURVEY WITH THE DRIVER.

ENCUESTA DEL SISTEMA REGIONAL DE PASAJEROS DE KERN - LAMONT

El sistema de tránsito Regional de Kern necesita de su ayuda para planear el mejoramiento del Sistema de Autobús entre Ciudades. Por favor tome un momento para llenar esta página durante su viaje. Si Ud. ya ha llenado esta encuesta (durante esta semana) por favor no llene otra nuevamente. Cuando haya completado esta encuesta, por favor devuelva esta hoja al motorista.

¿Dónde comenzó su viaje de ida y cuál es su destino?	
PREGUNTAS ACERCA DEL PUNTO DE ORIGEN	PREGUNTAS ACERCA DEL DESTINO
<p>1a. Comencé este viaje de: <i>(No donde se embarcó pero si mencione las calles que se cruzan más cerca de donde su viaje comenzó)</i></p> <p>_____</p> <p>_____</p>	<p>2a. Estoy a camino de: <i>(Mencione las calles más cercanas que se cruzan o la dirección de su destino final)</i></p> <p>_____</p> <p>_____</p>
<p>1b. Favor de especificar el nombre de la ciudad donde Ud. abordó este autobús:</p> <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Bakersfield <input type="checkbox"/> Weedpatch </div> <div> <input type="checkbox"/> Lamont <input type="checkbox"/> Arvin </div> </div>	<p>2b. Favor de especificar el nombre de la ciudad donde Ud. dejará este autobús:</p> <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Bakersfield <input type="checkbox"/> Weedpatch </div> <div> <input type="checkbox"/> Lamont <input type="checkbox"/> Arvin </div> </div>

3. ¿Cuál es el motivo principal de este viaje en particular? Si está regresando a su casa, ¿por qué hizo este viaje?
- ☐ Trabajo
☐ Escuela/Universidad (¿cuál?) _____

☐ Cita con el Médico o el Dentista
☐ Otro _____

☐ De compras/personal
4. ¿Hoy, usará (o usó) el autobús de ida y vuelta?
- ☐ Sí
 ☐ No → (si la respuesta es 'no', ¿cómo completó su viaje de regreso?) _____
5. ¿Con qué frecuencia usa Ud. este Sistema de Autobús entre Ciudades?
- ☐ 5 o más días por SEMANA
 ☐ 2 a 4 días por SEMANA
 ☐ 1 a 4 días por MES
 ☐ Menos de un día por MES
6. ¿Se transfiere Ud. de o para otro servicio de tránsito? ☐ Sí ☐ No
- Si la respuesta es 'sí' → ¿cuál es el servicio?
- ☐ GET
 ☐ Arvin Transit
 ☐ Greyhound
 ☐ Orange Belt
 ☐ Kern Regional Transit
 ☐ Other _____
7. ¿Cuál es el cambio que más le gustaría ver en el Sistema de Autobús entre Ciudades?
- _____
- _____
8. ¿Tenía Ud. un carro disponible para este viaje en particular? ☐ Sí ☐ No
9. ¿Cómo clasificaría Ud. el servicio que ofrece el Sistema de Autobús entre Ciudades?
- ☐ Excelente
 ☐ Bueno
 ☐ Regular
 ☐ Malo
10. ¿Hay algún lugar que a Ud. le gustaría que el Sistema de Autobús entre Ciudades recorriera, y que no está en la ruta ahora?
- _____
- _____
11. Mi edad es: ☐ 15 años o menos ☐ 16 a 18 años ☐ 19 a 24 años ☐ 25 a 44 años ☐ 45 a 61 años ☐ 62+
12. Sus ingresos: ☐ Menos de \$10,000 ☐ \$10,000 a \$19,999 ☐ \$20,000 a \$39,999 ☐ Más de \$40,000
13. ¿Es Ud. del sexo ☐ Femenino ☐ Masculino?

GRACIAS POR SU AYUDA. POR FAVOR ENTREGUE ESTA HOJA AL MOTORISTA.

**Kern Council of Governments
Eastern Kern County Transit Development Plan
Telephone Survey
FRAZIER PARK/BAKERSFIELD**

INTRODUCTION

Hello, this is _____ calling in regard to Transit Service in the corridor between the Frazier Park area and Bakersfield. The intent of this survey is to better understand the travel needs of residents of Kern County to facilitate public bus system development. The survey is voluntary and will take about five minutes. Your answers will be kept confidential.

SCREENING

- A. First is this household in or in the vicinity (within 5 miles) of:
CIRCLE THE APPROPRIATE # OF THE RESPONSE
- | | |
|----------------------------|---|
| a. Frazier Park..... | 1 |
| b. Pine Mountain Club..... | 2 |
| c. Lake of the Woods..... | 3 |
| d. Grapevine..... | 4 |
| e. Lebec/Gorman..... | 5 |
| f. Wheeler Ridge..... | 6 |
| g. Mettler..... | 7 |
| h. Arvin..... | 8 |
| i. Lamont/Weedpatch..... | 9 |

YES - CONTINUE

NO - THANK AND TERMINATE

- B. I would like to interview the youngest male aged 16 or older who is at home now. (Would that be you?)

IF NO MALE ADULT, OR MALE ADULT NOT AVAILABLE, SAY:

Then I would like to interview the youngest female age 16 or older who is at home now.

IF NO ADULT, THANK AND TERMINATE

IF NOT AN ELIGIBLE RESIDENT, THANK AND TERMINATE

WHEN YOU HAVE AN ELIGIBLE ADULT, CONTINUE.

INTERVIEW

1. Are you. . .

employed in Kern County (GO TO Q #2).....2
employed in Los Angeles County (SKIP TO Q #6).....3
employed somewhere else (SKIP TO Q #10).....4
a student (SKIP TO Q #5).....5
unemployed (SKIP TO Q #10).....6
retired (SKIP TO Q #10).....7
something else (including homemaker) (SKIP TO Q #10).....8

IF EMPLOYED IN KERN COUNTY, ASK

2. What City or Town do you work in? (PROBE FOR SPELLING AND CLARITY
IF NECESSARY.)

3. What is the zip code where you work? _ _ _ _ _

4. For transportation planning purposes only, could you please tell me the
address where you work or a nearby cross-street?

IF CROSS-STREET BE SURE TO NAME BOTH STREES.

SKIP TO QUESTION #7

Q. #5 IF STUDENT, ASK:

Could you just tell me the name of the school you attend?

SKIP TO QUESTION #7

Q.#6 IF EMPLOYED IN LOS ANGELES COUNTY, ASK:

What is the name of the City or Town you are employed in?

GO TO Q #7

7. How do you usually commute to (work)/(school)?
- | | |
|--|----|
| Drive alone..... | 1 |
| Dropped off (Not a carpool or van pool)..... | 2 |
| Carpool..... | 3 |
| Van Pool..... | 4 |
| Walk..... | 5 |
| Bicycle..... | 6 |
| Motorcycle/Motorbike..... | 7 |
| Hitchhike..... | 8 |
| Other:..... | 9 |
| No typical mode..... | 10 |
| Public Transportation..... | 11 |

7A. If Public Transportation which transit system do you use?

- | | |
|--|---|
| Kern Regional Transit [AKA: Kern Rural Transit (KRTS),
Kern County Transit (KCTS)]..... | 1 |
| City of Arvin..... | 2 |
| GET (Golden Empire Transit)..... | 3 |
| Greyhound..... | 4 |
| Orangebelt..... | 5 |
| Other | 6 |

8. Does this change in bad weather?
- Yes _____ IF YES GO TO Q #8A
- No _____ IF NO, GO TO Q#9

8A. In bad weather how do you usually commute to (work)/(school)?

- | | |
|---|----|
| Drive alone..... | 1 |
| Dropped off (Not a carpool or van pool)..... | 2 |
| Carpool..... | 3 |
| Van Pool..... | 4 |
| Walk..... | 5 |
| Bicycle..... | 6 |
| Motorcycle/Motorbike..... | 7 |
| Hitchhike..... | 8 |
| Other:..... | 9 |
| No typical mode..... | 10 |
| Public Transportation (IF YES, GO TO 8B)..... | 11 |

8B. If Public Transportation which transit system do you use?

- | | |
|--|---|
| Kern Regional Transit [AKA: Kern Rural Transit (KRTS),
Kern County Transit (KCTS)]..... | 1 |
| City of Arvin..... | 2 |
| GET (Golden Empire Transit)..... | 3 |
| Greyhound..... | 4 |
| Orangebelt..... | 5 |
| Other | 6 |

9. When you (commute to work)/(go to school), do you do so at approximately the same time every day?

Yes _____ IF YES, GO TO Q #9A.

No _____ IF NO, GO TO QUESTION #10.

IF THE SAME TIME, ASK:

9A. About what time do you leave home to go to (work)/(school)?

____:____ AM or PM

About what time do you leave (work)/(school) to go home?

____:____ AM or PM

BE SURE TO IDENTIFY AM OR PM.

GO TO QUESTION 10.

10. What is the Zip Code where you live? _____

11. For transportation planning purposes only, could you please tell me the address where you live or a nearby cross-street?

IF CROSS-STREET BE SURE TO NAME BOTH STREETS

- 12A. What bus services in Kern County are you familiar with?

- 12B. What bus services have you ridden on in Kern County in the past two years?

	12A. FAM. WITH	12B. RIDDEN YES NO	
a. None.....	1		
IF NONE, SKIP TO Q#13			
b. Kern Regional Transit [AKA: Kern Rural Transit (KRTS), Kern County Transit (KCTS)].....	1	1	2
c. City of Arvin.....	1	1	2
d. GET (Golden Empire Transit).....	1	1	2
e. Greyhound.....	1	1	2
f. Orangebelt.....	1	1	2
g. AMTRAK Bus.....	1	1	2
h. Tehachapi Transit.....	1	1	2
i. Ridgecrest Transit.....	1	1	2
j. California City.....	1	1	2
k. Antelope Valley Transit.....	1	1	2
l. Taft Transit.....	1	1	2
m. Delano Transit.....	1	1	2
n. Shafter Transit.....	1	1	2
o. McFarland Transit.....	1	1	2
p. Other	1	1	2

13. If bus service was available from your home City to another City or Town of your choice, which **ONE** location would you prefer:

I would not use the bus even if it was available.....14

IF WOULD NOT USE, THEN SKIP TO Q #16

Locations:

- a. Frazier Park.....1
- b. Pine Mountain Club.....2
- c. Lake of the Woods.....3
- d. Grapevine.....4
- f. Lebec/Gorman.....5
- g. Wheeler Ridge.....6
- h. Mettler.....7
- i. Arvin.....8
- j. Lamont/Weedpatch.....9
- l. Tehachapi.....10
- n. Bakersfield.....11
- o. San Fernando Valley/Los Angeles County.....12
- p. Other.....13

14. How often would you use **THAT** service?

- a. 4 or more days per week.....1
- b. 2 to 3 days per week.....2
- c. Once a week.....3
- d. Once a month.....4
- e. Less than once a month.....5

15. What is the maximum one-way fare you would be willing to pay for **THAT** service?

\$ ____ . ____

16. Now I am going to read you a list of things that encourage some people to use public transportation. As I read each one please tell me whether it would encourage you to use public transportation more often:

	YES	NO	DON'T KNOW
a. fixed route bus service with a stop within 1/2 mile of my home.....1		2	3
b. better accessibility for people with disabilities.....1		2	3
c. regularly scheduled frequent service (every hour to two hours).....1		2	3
d. evening service.....1		2	3
e. Saturday service.....1		2	3
f. Sunday service.....1		2	3
g. early morning service.....1		2	3
h. nighttime service.....1		2	3
i. bicycle racks on the buses.....1		2	3
j. more comfortable vehicles.....1		2	3
k. a guaranteed ride home (during regular service hours).....1		2	3

NOW IN ORDER TO CLARIFY YOUR RESPONSES I NEED TO ASK A FEW QUESTIONS ABOUT YOU?

17. How many cars, trucks and vans do the people living in your house have immediate access to?

a. none.....1
b. one.....2
c. two.....3
d. three.....4
e. four or more.....5

18. What is your age please? ____

SURVEYOR PLEASE RECORD RESPONDENTS GENDER.

Male.....1
Female.....2

THANK THE RESPONDENT.

**Kern Council of Governments
Eastern Kern County Transit Development Plan
Telephone Survey
BAKERSFIELD**

INTRODUCTION

Hello, this is _____ calling in regard to Transit Service in southern and eastern Kern County from Bakersfield. The intent of this survey is to better understand the travel needs of residents of Kern County to facilitate public bus system development. The survey is voluntary and will take about five minutes. Your answers will be kept confidential.

SCREENING

- A. First is this household in Bakersfield:

YES - CONTINUE

NO - THANK AND TERMINATE

- B. I would like to interview the youngest male aged 16 or older who is at home now. (Would that be you?)

IF NO MALE ADULT, OR MALE ADULT NOT AVAILABLE, SAY:

Then I would like to interview the youngest female age 16 or older who is at home now.

IF NO ADULT, THANK AND TERMINATE

IF NOT AN ELIGIBLE RESIDENT, THANK AND TERMINATE

WHEN YOU HAVE AN ELIGIBLE ADULT, CONTINUE.

INTERVIEW

1. Are you. . .

employed in Bakersfield (SKIP TO Q #10).....1
employed in Kern County, but outside of Bakersfield (GO TO Q #2)..2
employed in Los Angeles County (SKIP TO Q #6).....3
employed somewhere else (SKIP TO Q #10).....4
a student (SKIP TO Q #5).....5
unemployed (SKIP TO Q #10).....6
retired (SKIP TO Q #10).....7
something else (including homemaker) (SKIP TO Q #10).....8

IF EMPLOYED IN KERN COUNTY, ASK

2. What City or Town do you work in? (PROBE FOR SPELLING AND CLARITY
IF NECESSARY.)

3. What is the zip code where you work? _ _ _ _ _

4. For transportation planning purposes only, could you please tell me the
address where you work or a nearby cross-street?

IF CROSS-STREET BE SURE TO NAME BOTH STREETS

SKIP TO QUESTION #7

Q. #5 IF STUDENT, ASK:

Could you just tell me the name of the school you attend?

SKIP TO QUESTION #7

Q.#6 IF EMPLOYED IN LOS ANGELES COUNTY, ASK:

What is the name of the City or Town you are employed in?

GO TO Q #7

7. How do you usually commute to (work)/(school)?
- | | |
|--|----|
| Drive alone..... | 1 |
| Dropped off (Not a carpool or van pool)..... | 2 |
| Carpool..... | 3 |
| Van Pool..... | 4 |
| Walk..... | 5 |
| Bicycle..... | 6 |
| Motorcycle/Motorbike..... | 7 |
| Hitchhike..... | 8 |
| Other:..... | 9 |
| No typical mode..... | 10 |
| Public Transportation..... | 11 |

7A. If Public Transportation which transit system do you use?

- | | |
|--|---|
| Kern Regional Transit [AKA: Kern Rural Transit (KRTS),
Kern County Transit (KCTS)]..... | 1 |
| City of Arvin..... | 2 |
| GET (Golden Empire Transit)..... | 3 |
| Greyhound..... | 4 |
| Orangebelt..... | 5 |
| Other | 6 |

8. Does this change in bad weather?

Yes ____ IF YES GO TO Q #8A
No ____ IF NO, GO TO Q#9

8A. In bad weather how do you usually commute to (work)/(school)?

- | | |
|---|----|
| Drive alone..... | 1 |
| Dropped off (Not a carpool or van pool)..... | 2 |
| Carpool..... | 3 |
| Van Pool..... | 4 |
| Walk..... | 5 |
| Bicycle..... | 6 |
| Motorcycle/Motorbike..... | 7 |
| Hitchhike..... | 8 |
| Other:..... | 9 |
| No typical mode..... | 10 |
| Public Transportation (IF YES, GO TO 8B)..... | 11 |

8B. If Public Transportation which transit system do you use?

- | | |
|--|---|
| Kern Regional Transit [AKA: Kern Rural Transit (KRTS),
Kern County Transit (KCTS)]..... | 1 |
| City of Arvin..... | 2 |
| GET (Golden Empire Transit)..... | 3 |
| Greyhound..... | 4 |
| Orangebelt..... | 5 |
| Other | 6 |

9. When you (commute to work)/(go to school), do you do so at approximately the same time every day?

Yes _____ IF YES, GO TO Q #9A.

No _____ IF NO, GO TO QUESTION #10.

IF THE SAME TIME, ASK:

9A. About what time do you leave home to go to (work)/(school)?

____:____ AM or PM

About what time do you leave (work)/(school) to go home?

____:____ AM or PM

BE SURE TO IDENTIFY AM OR PM.

GO TO QUESTION 10.

10. What is the Zip Code where you live? _____

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IF CROSS-STREET BE SURE TO NAME BOTH STREETS

- 12A. What bus services in Kern County are you familiar with?

- 12B. What bus services have you ridden on in Kern County in the past two years?

	12A. FAM. WITH	12B. RIDDEN YES NO	
a. None.....	1		
IF NONE, SKIP TO Q#13			
b. Kern Regional Transit [AKA: Kern Rural Transit (KRTS), Kern County Transit (KCTS)].....	1	1	2
c. City of Arvin.....	1	1	2
d. GET (Golden Empire Transit).....	1	1	2
e. Greyhound.....	1	1	2
f. Orangebelt.....	1	1	2
g. AMTRAK Bus.....	1	1	2
h. Tehachapi Transit.....	1	1	2
i. Ridgecrest Transit.....	1	1	2
j. California City.....	1	1	2
k. Antelope Valley Transit.....	1	1	2
l. Taft Transit.....	1	1	2
m. Delano Transit.....	1	1	2
n. Shafter Transit.....	1	1	2
o. McFarland Transit.....	1	1	2
p. Other _____	1	1	2

13. If bus service was available from Bakersfield to another City or Town of your choice, which **ONE** location would you prefer:

I would not use the bus even if it was available.....19

IF WOULD NOT USE, THEN SKIP TO Q#16

Locations:

- a. Frazier Park.....1
- b. Pine Mountain Club/Lake of the Woods.....2
- c. Lebec/Gorman.....3
- d. Wheeler Ridge/Mettler.....4
- e. Arvin.....5
- f. Lamont/Weedpatch.....6
- g. Tehachapi.....7
- h. Mojave.....8
- i. California City.....9
- j. Rosamond.....10
- k. Lancaster/Palmdale.....11
- l. Edwards Air Force Base.....12
- m. Ridgecrest.....13
- n. Kernville/Wofford Heights.....14
- o. Lake Isabella/Bodfish/Kern River Valley.....15
- p. Weldon/Onyx.....16
- q. San Fernando Valley/Los Angeles County.....17
- r. Other.....18

14. How often would you use **THAT** service?

- a. 4 or more days per week.....1
- b. 2 to 3 days per week.....2
- c. Once a week.....3
- d. Once a month.....4
- e. Less than once a month.....5

15. What is the maximum one-way fare you would be willing to pay for **THAT** service?

\$ ____ . ____

16. Now I am going to read you a list of things that encourage some people to use intercity public transportation. As I read each one please tell me whether it would encourage you to use intercity public transportation more often:

	YES	NO	DON'T KNOW
a. fixed route bus service with a stop within 1/2 mile of my home.....1		2	3
b. better accessibility for people with disabilities.....1		2	3
c. regularly scheduled frequent service (every hour to two hours).....1		2	3
d. evening service.....1		2	3
e. Saturday service.....1		2	3
f. Sunday service.....1		2	3
g. early morning service.....1		2	3
h. nighttime service.....1		2	3
i. bicycle racks on the buses.....1		2	3
j. more comfortable vehicles.....1		2	3
k. a guaranteed ride home (during regular service hours).....1		2	3

NOW IN ORDER TO CLARIFY YOUR RESPONSES I NEED TO ASK A FEW QUESTIONS ABOUT YOU?

17. How many cars, trucks and vans do the people living in your house have immediate access to?

a. none.....1
b. one.....2
c. two.....3
d. three.....4
e. four or more.....5

18. What is your age please? ___

SURVEYOR PLEASE RECORD RESPONDENTS GENDER.

Male.....1
Female.....2

THANK THE RESPONDENT.