

Chapter 4

Transit Demand Analysis

A key step in developing and evaluating transit plans is a careful analysis of the mobility needs of various segments of the population and the potential ridership on transit services. A good starting point for this analysis is to estimate the demand for transit and compare that with current services, thereby determining the total unmet transit needs. In this chapter, the scope and characteristics of existing and future transit demand within the study area will be analyzed. The analysis makes intensive use of the demographic data and trends discussed previously.

The demand for transit services in areas that include rural areas is considered in two components: “program” and non-program.” Program transit trips are those associated with a function of the number of persons using the program. Non-program transit trips consist of all others, including general public trips for all purposes (work, school, shopping, recreational, etcetera).

NON-PROGRAM URBAN DEMAND ESTIMATION

In general, there are three ways in which total non-program transit demand may be estimated:

- ▶ observed commuting usage,
- ▶ analysis of survey data collected from passengers and residents in the community, and
- ▶ regression models that have been developed based upon observed usage in similar communities.

All three of these estimation methods are reviewed and their demand estimates evaluated in this chapter. For all methods, 2000 serves as the base year, with data provided by the U.S. Census Bureau (as presented in Table 6 above).

Observed Commuting Usage

The first methodology, observed commuting usage, is based on nationally-recognized trip-making averages as they relate to various demographic factors, such as the number of employed persons and the total population. Two of these types of estimates are presented below.

Employee Transit Use

Within the category of “observed commuting usage methods,” one method is to use the average percentage of employees who commute by transit as an indicator of the demand for work commute trips. Typically, national averages for similar communities are used for this method, which fall in a range between 1.8 to 3.5 percent of a community’s total number of employees. Each employee is assumed to make two trips for each work day, or approximately 250 days per year.

In 2000, 19,429 employed persons who worked outside their home resided in the urbanized core area² of western El Dorado County. Using this figure, a total study area demand of 194,290 annual one-way transit trips is estimated, as follows:

$$\begin{aligned} 19,429 \times 2 \times 250 &= 9,714,500 \text{ total annual one-way person trips (all modes)} \\ 9,714,500 \times 2.0 \text{ percent} &= 194,290 \text{ annual one-way transit trips} \end{aligned}$$

²The urbanized core area is defined as El Dorado Hills (including Census Tracts 307.01, 307.02, 307.03), and Cameron Park (including Census Tracts 308.03, 308.05, 308.06).

Table 27 below presents these demand calculations for the urban core area for 2000, 2010 and 2025. As presented, the combined demand for the study area for the year 2010 is 290,400 one-way transit work trips and 377,700 one-way transit work trips in 2025 (the final year of the LRTP planning period).

Modal Split

Within the category of “observed commuting usage methods,” the second demand estimation method relies on the national percentage of *all* trips (as opposed to employee work trips) made by public transit as a mode. National statistics indicate that between 0.5 percent and 1.2 percent of all trips are made on public transit where it is available, and each person makes an average of 3.5 one-way one-way passenger-trips per day.

Considering the existing service coverage in the study area, the optimal modal split within the urbanized core area (El Dorado Hills and Cameron Park areas) is estimated to be 1.0 percent, and 0.5 percent for the remainder of western El Dorado County, if a very high level of transit service could be provided. Using these figures, demand for the urban core area can be estimated at 617,310 annual one-way transit trips in 2000, as presented:

$$48,322 \text{ persons} \times 365 \text{ days/year} \times 3.5 \text{ trips/day} = 61,731,355 \text{ total trips}$$

$$61,731,355 \text{ trips} \times 1.0 \text{ percent} = 617,310 \text{ annual one-way transit trip per year}$$

Similarly, the rural demand outside the urban core for 2000 is estimated at 271,870 one-way one-way passenger-trips. The combined regional total for 2000 is 889,180 one-way one-way passenger-trips. Table 28 presents subarea estimates for the urban core and rural areas by RAD. Estimates are also provided in this table for 2010 and 2025. Based on this method and using the region’s projected 2010 population of 155,706 persons, the region’s demand will be approximately 1,215,650 annual one-way transit trips per year, if a very high level of service could be provided. Of the total 2010 demand, 74.5 percent will be within the urban core area, and 25.5 percent will be in the remainder of the study area. In 2025, annual one-way transit one-way passenger-trips are estimated at 1,171,570 (or 76.3 percent) in the urban core area, with 364,570 annual one-way one-way passenger-trips (or 23.7 percent) estimated in the rural areas of western El Dorado County.

Elderly and Disabled Transit Demand

The most thorough analysis of transit demand among the elderly and disabled segments of the urban population was developed by Peat, Marwick, Mitchell & Company, as described in *Description of the Transportation Handicapped Population* (1975). This methodology derives the elderly and disabled transit demand as:

$$\begin{aligned} \text{E\&D Trips per Year} = & \text{Elderly and Disabled Population} \times \\ & ((25\% \times 5.2 \text{ trips per week}) + \\ & (5\% \times 1.4 \text{ trips per week})) \times \\ & 35 \text{ percent by transit mode} \times 51 \text{ weeks per year} \end{aligned}$$

Applying the total urban area population estimates of 5,029 elderly and 606 persons with a mobility limitation disability, this equation yields a total estimate of 98,430 urban area elderly/disabled transit trips per year.

TABLE 27: Western El Dorado County Employee Transit Use Method of Urban Demand Estimator.

Census Area	Area Description	Employment (1)				Estimated Transit Demand (2)				Demand Density (3)	
		2000	2010	2025	2000	2010	2025	2010	2025	% of 2010 Regional Demand	% of 2025 Regional Demand
El Dorado Hills											
307.01	Zee Estates / Lakeridge Oaks	2,658	4,900	6,780	26,580	49,000	67,800	9,496	13,140	16.9%	18.0%
307.02	Hidden Valley / Crescent Ridge Village	2,876	5,300	7,340	28,760	53,000	73,400	10,950	15,165	18.3%	19.4%
307.03	Greenvalley Acres / Oak Ridge Village	3,559	6,560	9,080	35,590	65,600	90,800	5,545	7,675	22.6%	24.0%
Cameron Park											
308.03	East Cameron Park	2,963	3,520	4,180	29,630	35,200	41,800	3,745	4,447	12.1%	11.1%
308.05	West Cameron Park	4,746	5,640	6,690	47,460	56,400	66,900	14,030	16,642	19.4%	17.7%
308.06	Central Cameron Park	2,627	3,120	3,700	26,270	31,200	37,000	17,143	20,330	10.7%	9.8%
Urban Core Total		19,429	29,040	37,770	194,290	290,400	377,700	60,909	77,398	100%	100%

Note 1: 2000 data based on 2000 U.S. Census population figures and 2010 and 2025 based on LSC estimates using SACOG growth projections.
 Note 2: Demand estimates assume that the percentage of employees using transit is 2.0 percent in western El Dorado County.
 Note 3: Demand density is measured in terms of one-way passenger-trips per square mile per year.
 Source: LSC Transportation Consultants, Inc.

TABLE 28: Western El Dorado County Modal Split Method of Demand Estimation											
Regional Analysis District	Population ⁽¹⁾			Estimated Transit Demand ⁽²⁾			Demand Density ⁽³⁾				
	2000	2010	2025	2000	2010	2025	% of 2010 Regional Demand	2010	2025	% of 2025 Regional Demand	
Urban Core											
El Dorado Hills	20,668	38,079	52,714	264,030	486,460	673,420	40.0%	1,025	1,420	43.8%	
Cameron Park	27,654	32,860	38,994	353,280	419,790	498,150	34.5%	81,355	96,540	32.4%	
Urban Core Subtotal	48,322	70,939	91,708	617,310	906,250	1,171,570	74.5%	82,379	97,960	76.3%	
Rural Area											
Pilot Hill	4,678	5,606	6,925	17,070	20,460	25,280	1.7%	321	400	1.6%	
Coloma-Lotus	7,687	8,777	10,460	28,060	32,040	38,180	2.6%	232	280	2.5%	
Diamond Springs	12,086	13,365	16,171	44,110	48,780	59,020	4.0%	102	120	3.8%	
West Placerville	7,108	8,554	10,212	25,940	31,220	37,270	2.6%	560	670	2.4%	
South Placerville	9,416	10,860	12,691	34,370	39,640	46,320	3.3%	1,660	1,940	3.0%	
East Placerville	5,268	5,811	6,919	19,230	21,210	25,250	1.7%	790	950	1.6%	
Pollock Pines	15,875	17,606	19,503	57,940	64,260	71,190	5.3%	2,560	2,840	4.6%	
Mt. Aukum	5,303	6,066	7,330	19,360	22,140	26,750	1.8%	1,140	1,370	1.7%	
Georgetown	7,066	8,122	9,675	25,790	29,650	35,310	2.4%	2,850	3,400	2.3%	
Rural Area Subtotal	74,487	84,767	99,886	271,870	309,400	364,570	25.5%	10,214	11,970	23.7%	
Study Area Total	122,809	155,706	191,594	889,180	1,215,650	1,536,140	100%	92,593	109,930	100%	

Note 1: Data based on LSC estimates using SACOG growth projections.

Note 2: Demand estimates assume that the percentage of employees using transit is 1.0 percent in the urbanized area of western El Dorado County and 0.5 percent in the rural areas.

Note 3: Demand density is measured in terms of one-way passenger-trips per square mile per year.

Source: LSC Transportation Consultants, Inc.

NON-PROGRAM RURAL DEMAND ESTIMATION

While the methods presented above are capable of providing estimates regionally, improved methods have been devised in recent years for rural areas. An important source of information regarding demand generated by programs is the Transit Cooperative Research Program (TCRP) Project A-3: *Rural Transit Demand Estimation Techniques*. This study, conducted in 1996 by SG Associates and LSC Transportation Consultants, represents the first substantial research into demand for transit service in rural areas and small communities since the early 1980s.

Study documents present a series of formulae relating the number of participants in various types of programs with the observed actual demand for service, based upon a database of 185 transit agencies across the country. The TCRP analytical technique uses a “logit model” approach to the estimation of transit demand, similar to that commonly used in urban transportation models. This model incorporates an exponential equation that relates the quantity of services and the demographics of the area.

As with any other product or service, the demand for transit services is a function of the level of supply provided. To use the TCRP methodology to identify a feasible maximum demand, it is necessary to assume a high supply level, as measured in vehicle service miles of annual transit service per square mile of service area. A review of the transit database presented in the TCRP documents indicates 6,500 vehicle service miles per square mile per year is the upper-bound “density” of similar services provided in this country. This assessment of demand for the rural to urbanizing areas, therefore, could be considered to be the maximum potential ridership if a high level of rural service were made available throughout the region.

For the rural areas of western El Dorado County, a reasonable maximum level of service would be to serve every portion of the country with four transit trips of transit service daily, Monday through Friday. This equates to approximately 1,000 vehicle-miles of transit service per square mile per year. The study area input data for this model are presented in Table 29, including land area and population data. Applying this *feasible maximum* service density to the population of the rural areas outside the western El Dorado County urban core yields the 2000 estimated transit demand for the general population, as well as the elderly and mobility limited populations, as presented in Table 30. Tables 31 and 33 present the 2010 and 2025 input data for the rural areas, with Tables 32 and 34 providing the corresponding 2010 and 2025 demand estimates. The estimated rural demand for 2000 is 78,390 one-way one-way passenger-trips. The 2010 demand is estimated at 89,200 one-way one-way passenger-trips, increasing to 101,490 one-way one-way passenger-trips in 2025. Of the 2010 estimate, 65,480 are trips by elderly persons, 7,050 are trips by disabled persons, and the remaining 16,670 are trips by general public riders. In 2025, elderly, disabled, and general public transit trips increase to 74,500, 8,030, and 18,960, respectively. The area with the greatest demand throughout the planning period is in the South Missouri Flat area.

SOCIAL SERVICE PROGRAM-RELATED TRANSIT DEMAND

In areas such as western El Dorado County, the transit trips made by residents to and from specific social programs (such as for job training or sheltered workshops) typically comprise a large part of the total transit demand. This demand differs from other types of demand in that it is specifically generated by each program.

Annual program demand was estimated by using the *TCRP Project A-3: Rural Transit Demand Estimation Techniques*, based upon the number of participants in each program. As presented in Table 35, total countywide demand of annual program trips is 1,241,160. This figure largely consists of potential demand for travel to and from group homes, mental health services, Head Start, job training and developmental services programs, and many of these trips are likely already being directly provided by EDCTA either as part of the general public services or as part

TABLE 29: TCRP Method of Rural Demand Estimation -- 2000 Data Inputs

Western El Dorado County (Not Including El Dorado Hills or Cameron Park)

Census Tract	Area Description	Land Area (sq. mi.)	Total Population (Persons)	Total Number of Elderly Age 60+	Mobility-Limited Population	Below-Poverty Population
306.01	Pilot Hill / Cool	63.6	4,607	799	87	99
306.02	Greenwood / Garden Valley	137.8	5,786	1,118	114	437
306.03	North Central County	474.7	2,787	560	48	202
307.04	Clarksville / Latrobe	55.3	1,905	261	20	116
308.01	Deer Valley / Rescue	23.9	3,730	543	163	37
308.04	Shingle Springs / Frenchtown	26.7	5,758	980	130	195
309.01	Coloma / Lotus Road Area	25.1	2,709	474	9	151
309.02	N. Greenstone / Missouri Flat Area	19.5	4,367	808	90	351
310	Northwest Placerville	10.4	5,750	1,231	256	254
311	North Placerville	14.2	5,084	1,064	18	459
312	South Placerville	8.1	4,824	1,093	175	590
313.01	Smith Flat / Camino	17.9	3,403	825	76	315
313.02	N. Pollock Pines / Cedar Grove	12.8	4,644	1,045	133	435
314.02	Somerset / Mt. Aukum	305.7	4,847	964	181	314
314.03	Southeast County	190.6	94	26	0	0
314.04	Newtown / Old Fort Jim	15.8	2,241	384	64	127
314.05	Rancho Del Sol / Gold Ridge	10.9	2,438	480	47	159
314.06	Fresh Pond / Pleasant Valley	30.0	5,298	1,057	121	386
315.02	South Missouri Flat Area	10.2	5,643	1,551	167	520
315.03	Kingsville / Nashville	38.3	2,635	545	83	186
315.04	Deer Park Area	22.8	5,273	1,222	130	348
Rural Study Area Total		1,514.4	83,823	17,030	2,112	5,681

Source: LSC Transportation Consultants, Inc.

TABLE 30: TCRP Method of Rural Demand Estimation – 2000 Estimates

Western El Dorado County (Not Including El Dorado Hills or Cameron Park)

Census Tract	Area Description	Estimated Annual Passenger-Trip Demand						Estimated Daily Transit Demand		Daily Demand Density (Trips per Sq.) Miles per Day
		Elderly	Mobility Limited		General Public	Total	#	Regional %		
			Elderly +	Mobility Limited						
306.01	Pilot Hill / Cool	2,700	260	2,960	260	260	3,220	13	4.2%	0.2
306.02	Greenwood / Garden Valley	3,780	330	4,110	1,130	1,130	5,240	21	6.9%	0.1
306.03	North Central County	1,890	140	2,030	520	520	2,550	10	3.3%	0.0
307.04	Clarksville / Latrobe	880	60	940	300	300	1,240	5	1.6%	0.1
308.01	Deer Valley / Rescue	1,830	480	2,310	100	100	2,410	9	3.2%	0.4
308.04	Shingle Springs / Frenchtown	3,310	380	3,690	500	500	4,190	16	5.5%	0.6
309.01	Coloma / Lotus Road Area	1,600	30	1,630	390	390	2,020	15	2.6%	0.3
309.02	N. Greenstone / Missouri Flat Area	2,730	260	2,990	910	910	3,900	15	5.1%	0.8
310	Northwest Placerville	4,160	750	4,910	660	660	5,570	22	7.3%	2.1
311	North Placerville	3,590	50	3,640	1,180	1,180	4,820	19	6.3%	1.3
312	South Placerville	3,690	510	4,200	1,520	1,520	5,720	22	7.5%	2.8
313.01	Smith Flat / Camino	2,790	220	3,010	810	810	3,820	15	5.0%	0.8
313.02	N. Pollock Pines / Cedar Grove	3,530	390	3,920	1,120	1,120	5,040	20	6.6%	1.6
314.02	Somerset / Mt. Aukum	3,260	530	3,790	810	810	4,600	18	6.0%	0.1
314.03	Southeast County	90	0	90	0	0	90	0	0.1%	0.0
314.04	Newtown / Old Fort Jim	1,300	190	1,490	330	330	1,820	7	2.4%	0.5
314.05	Rancho Del Sol / Gold Ridge	1,620	140	1,760	410	410	2,170	9	2.8%	0.8
314.06	Fresh Pond / Pleasant Valley	3,570	360	3,930	1,000	1,000	4,930	19	6.5%	0.6
315.02	South Missouri Flat Area	5,240	490	5,730	1,340	1,340	7,070	28	9.3%	2.7
315.03	Kingsville / Nashville	1,840	240	2,080	480	480	2,560	10	3.4%	0.3
315.04	Deer Park Area	4,130	380	4,510	900	900	5,410	21	7.1%	0.9
Rural Study Area Total		57,530	6,190	63,720	14,670	14,670	78,390	299	100%	0.2

Source: LSC Transportation Consultants, Inc.

TABLE 31: TCRP Method of Rural Demand Estimation – 2010 Data Inputs

Western El Dorado County (Not Including El Dorado Hills or Cameron Park)

Census Tract	Area Description	Land Area (sq. mi.)	Total Population (Persons)	Total Number of Elderly Age 60+	Mobility-Limited Population	Below-Poverty Population
306.01	Pilot Hill / Cool	63.6	5,243	909	99	113
306.02	Greenwood / Garden Valley	137.8	6,585	1,272	130	497
306.03	North Central County	474.7	3,172	637	55	230
307.04	Clarksville / Latrobe	55.3	2,168	297	23	132
308.01	Deer Valley / Rescue	23.9	4,245	618	185	42
308.04	Shingle Springs / Frenchtown	26.7	6,553	1,115	148	222
309.01	Coloma / Lotus Road Area	25.1	3,083	539	10	172
309.02	N. Greenstone / Missouri Flat Area	19.5	4,970	920	102	399
310	Northwest Placerville	10.4	6,544	1,401	291	289
311	North Placerville	14.2	5,786	1,211	20	522
312	South Placerville	8.1	5,490	1,244	199	671
313.01	Smith Flat / Camino	17.9	3,873	939	86	358
313.02	N. Pollock Pines / Cedar Grove	12.8	5,285	1,189	151	495
314.02	Somerset / Mt. Aukum	305.7	5,516	1,097	206	357
314.03	Southeast County	190.6	107	30	0	0
314.04	Newtown / Old Fort Jim	15.8	2,550	437	73	145
314.05	Rancho Del Sol / Gold Ridge	10.9	2,774	546	53	181
314.06	Fresh Pond / Pleasant Valley	30.0	6,029	1,203	138	439
315.02	South Missouri Flat Area	10.2	6,422	1,765	190	592
315.03	Kingsville / Nashville	38.3	2,999	620	94	212
315.04	Deer Park Area	22.8	6,001	1,391	148	396
Rural Study Area Total		1,514.4	95,391	19,380	2,403	6,465

Source: LSC Transportation Consultants, Inc.

TABLE 32: TCRP Method of Rural Demand Estimation – 2010 Estimates

Western El Dorado County (Not Including El Dorado Hills or Cameron Park)

Census Tract	Area Description	Estimated Annual Passenger-Trip Demand						Estimated Daily Transit Demand		Daily Demand Density (Trips per Sq. Miles per Day)				
		Elderly		Mobility Limited		Elderly + Mobility Limited		#	Regional %					
		Elderly	Mobility Limited	Mobility Limited	General Public	Total								
306.01	Pilot Hill / Cool	3,070	290	3,360	290	3,650	14	4.1%	0.2					
306.02	Greenwood / Garden Valley	4,300	380	4,680	1,280	5,960	23	6.7%	0.2					
306.03	North Central County	2,150	160	2,310	590	2,900	11	3.3%	0.0					
307.04	Clarksville / Latrobe	1,000	70	1,070	340	1,410	6	1.6%	0.1					
308.01	Deer Valley / Rescue	2,090	540	2,630	110	2,740	11	3.1%	0.4					
308.04	Shingle Springs / Frenchtown	3,770	430	4,200	570	4,770	19	5.3%	0.7					
309.01	Coloma / Lotus Road Area	1,820	30	1,850	440	2,290	9	2.6%	0.4					
309.02	N. Greenstone / Missouri Flat Area	3,110	300	3,410	1,030	4,440	17	5.0%	0.9					
310	Northwest Placerville	4,730	860	5,590	750	6,340	25	7.1%	2.4					
311	North Placerville	4,090	60	4,150	1,350	5,500	22	6.2%	1.5					
312	South Placerville	4,200	590	4,790	1,730	6,520	26	7.3%	3.2					
313.01	Smith Flat / Camino	3,170	250	3,420	920	4,340	17	4.9%	1.0					
313.02	N. Pollock Pines / Cedar Grove	4,020	440	4,460	1,280	5,740	23	6.4%	1.8					
314.02	Somerset / Mt. Aukum	3,710	610	4,320	920	5,240	21	5.9%	0.1					
314.03	Southeast County	100	0	100	0	100	0	0.1%	0.0					
314.04	Newtown / Old Fort Jim	1,480	210	1,690	370	2,060	8	2.3%	0.5					
314.05	Rancho Del Sol / Gold Ridge	1,850	160	2,010	470	2,480	10	2.8%	0.9					
314.06	Fresh Pond / Pleasant Valley	4,060	400	4,460	1,130	5,590	22	6.3%	0.7					
315.02	South Missouri Flat Area	5,960	560	6,520	1,530	8,050	32	9.0%	3.1					
315.03	Kingsville / Nashville	2,100	280	2,380	550	2,930	11	3.3%	0.3					
315.04	Deer Park Area	4,700	430	5,130	1,020	6,150	24	6.9%	1.1					
Rural Study Area Total							65,480	7,050	72,530	16,670	89,200	350	100%	0.2

Source: LSC Transportation Consultants, Inc.

TABLE 33: TCRP Method of Rural Demand Estimation – 2025 Data Inputs

Western El Dorado County (Not Including El Dorado Hills or Cameron Park)

Census Tract	Area Description	Land Area (sq. mi.)	Total Population (Persons)	Total Number of Elderly Age 60+	Mobility-Limited Population	Below-Poverty Population
306.01	Pilot Hill / Cool	63.6	5,966	1,035	113	128
306.02	Greenwood / Garden Valley	137.8	7,493	1,448	148	566
306.03	North Central County	474.7	3,609	725	62	262
307.04	Clarksville / Latrobe	55.3	2,467	338	26	150
308.01	Deer Valley / Rescue	23.9	4,831	703	211	48
308.04	Shingle Springs / Frenchtown	26.7	7,457	1,269	168	253
309.01	Coloma / Lotus Road Area	25.1	3,508	614	12	196
309.02	N. Greenstone / Missouri Flat Area	19.5	5,656	1,046	117	455
310	Northwest Placerville	10.4	7,447	1,594	332	329
311	North Placerville	14.2	6,584	1,378	23	594
312	South Placerville	8.1	6,247	1,416	227	764
313.01	Smith Flat / Camino	17.9	4,407	1,068	98	408
313.02	N. Pollock Pines / Cedar Grove	12.8	6,014	1,353	172	563
314.02	Somerset / Mt. Aukum	305.7	6,277	1,248	234	407
314.03	Southeast County	190.6	122	34	0	0
314.04	Newtown / Old Fort Jim	15.8	2,902	497	83	164
314.05	Rancho Del Sol / Gold Ridge	10.9	3,157	622	61	206
314.06	Fresh Pond / Pleasant Valley	30.0	6,861	1,369	157	500
315.02	South Missouri Flat Area	10.2	7,308	2,009	216	673
315.03	Kingsville / Nashville	38.3	3,413	706	107	241
315.04	Deer Park Area	22.8	6,829	1,583	168	451
Rural Study Area Total		1,514.4	108,557	22,055	2,735	7,357

Source: LSC Transportation Consultants, Inc.

TABLE 34: TCRP Method of Rural Demand Estimation – 2025 Estimates
 Western El Dorado County (Not Including El Dorado Hills or Cameron Park)

Census Tract	Area Description	Estimated Annual Passenger-Trip Demand										Total	Estimated Daily Transit Demand #	Regional %	Daily Demand Density (Trips per Sq. Miles per Day)
		Elderly +		Mobility Limited		General Public		Elderly		Mobility Limited					
		Elderly	Mobility Limited	Elderly	Mobility Limited	General	Public	Elderly	Mobility Limited	Elderly	Mobility Limited				
306.01	Pilot Hill / Cool	3,500	330	3,830	330	330	330	4,160	16	4.1%	0.3				
306.02	Greenwood / Garden Valley	4,890	430	5,320	1,460	1,460	6,780	27	6.7%	0.2					
306.03	North Central County	2,450	180	2,630	680	680	3,310	13	3.3%	0.0					
307.04	Clarksville / Latrobe	1,140	80	1,220	390	390	1,610	6	1.6%	0.1					
308.01	Deer Valley / Rescue	2,380	620	3,000	120	120	3,120	12	3.1%	0.5					
308.04	Shingle Springs / Frenchtown	4,290	490	4,780	650	650	5,430	21	5.4%	0.8					
309.01	Coloma / Lotus Road Area	2,070	30	2,100	500	500	2,600	10	2.6%	0.4					
309.02	N. Greenstone / Missouri Flat Area	3,530	340	3,870	1,170	1,170	5,040	20	5.0%	1.0					
310	Northwest Placerville	5,390	970	6,360	850	850	7,210	28	7.1%	2.7					
311	North Placerville	4,650	70	4,720	1,530	1,530	6,250	25	6.2%	1.7					
312	South Placerville	4,780	670	5,450	1,970	1,970	7,420	29	7.3%	3.6					
313.01	Smith Flat / Camino	3,610	290	3,900	1,050	1,050	4,950	19	4.9%	1.1					
313.02	N. Pollock Pines / Cedar Grove	4,570	510	5,080	1,450	1,450	6,530	26	6.4%	2.0					
314.02	Somerset / Mt. Aukum	4,220	690	4,910	1,050	1,050	5,960	23	5.9%	0.1					
314.03	Southeast County	110	0	110	0	0	110	0	0.1%	0.0					
314.04	Newtown / Old Fort Jim	1,680	240	1,920	420	420	2,340	9	2.3%	0.6					
314.05	Rancho Del Sol / Gold Ridge	2,100	180	2,280	530	530	2,810	11	2.8%	1.0					
314.06	Fresh Pond / Pleasant Valley	4,620	460	5,080	1,290	1,290	6,370	25	6.3%	0.8					
315.02	South Missouri Flat Area	6,790	640	7,430	1,740	1,740	9,170	36	9.0%	3.5					
315.03	Kingsville / Nashville	2,380	320	2,700	620	620	3,320	13	3.3%	0.3					
315.04	Deer Park Area	5,350	490	5,840	1,160	1,160	7,000	27	6.9%	1.2					
Rural Study Area Total		74,500	8,030	82,530	18,960	18,960	101,490	398	100%	0.3					

Source: LSC Transportation Consultants, Inc.

TABLE 35: El Dorado County Program-Related Transit Demand

Program Type	Criteria	Feasible Number Participants	Annual Feasible Number of Rides		Total
			Urban	Rural	
Development Services: Adult	Actual # Participants	150	12,360	50,450	62,810
Development Services: Case Management	Mobility Limited, Aged 16 to 64	2,718	20,960	85,590	106,550
Development Services: Preschool	Actual # Participants	45	1,980	8,100	10,080
Group Home	Actual # Participants	106	6,810	27,800	34,610
Headstart	Actual # Participants	289	14,950	61,060	76,010
Headstart: Homebase	Actual # Participants	92	550	2,260	2,810
Headstart: Other	Actual # Participants	454	170	670	840
Job Training	Actual # Participants	1,000	26,950	110,050	137,000
Mental Health Services	Total Mobility Limited	1,899	129,640	529,310	658,950
Nursing Home	Actual # Participants	322	760	3,090	3,850
Senior Nutrition	Actual # Participants	360	17,560	71,720	89,280
Sheltered Workshop	Actual # Participants	150	11,330	46,270	57,600
Substance Abuse	Actual # Participants	885	150	620	770
		Total Potential Ridership	244,170	996,990	1,241,160

Note: Demand estimates based on the methodology presented in "TCRP Report 3: Workbook for Estimating Demand for Rural Passenger Transportation."

of contracted services. Again, the reader is cautioned that this number reflects the demand if a very high level of service was possible to every portion of the county.

SUMMARY OF SHORT-RANGE TRANSIT DEMAND

A summary of the various elements of transit demand in western El Dorado County in 2000 is presented in Table 36 and in Figures 21 and 22. As indicated, total transit demand is split into urban (El Dorado Hills and Cameron Park) and rural (the remainder of western El Dorado County). The combined urban and rural total transit demand within western El Dorado County is estimated to equal 2,483,420 annual one-way passenger-trips *if a very high level of service could be provided*. It should be emphasized, however, that these numbers represent a maximum potential under optimal service conditions throughout western El Dorado County. It is not financially feasible to expect that the transit services that serve western El Dorado County could ever approach this level of service.

In the urban area, the largest portion of estimated demand is generated by Commuter trip demand (48.1 percent), followed by Social Service program-related transit demand (19.0 percent), other non-program demand (25.3 percent), and elderly and disabled demand (7.7 percent). In the rural portion of western El Dorado County, program demand comprised the greatest proportion of demand (83.2 percent), followed by work-related demand (6.2 percent), general public demand 5.3 percent), elderly demand (4.8 percent) and disabled demand (less than 1 percent).

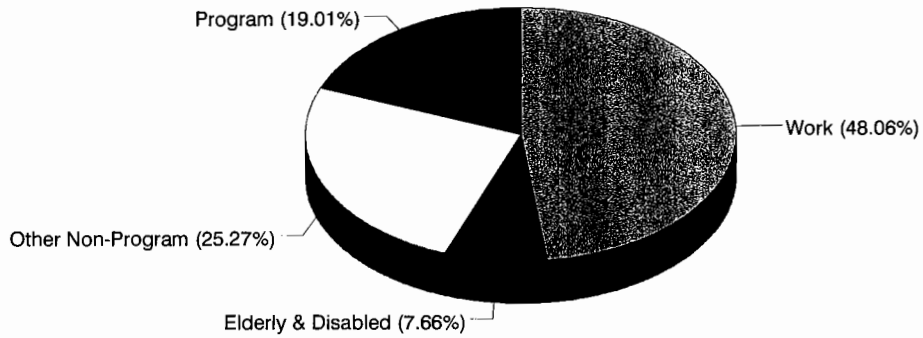
Since the EDCTA has not conducted a comprehensive on-board passenger survey since 1992, the LSC Team applied the results of the 2002 Yuba-Sutter Transit Authority's on-board survey results to Fiscal Year 2001-02 EDCTA ridership in order to determine how transit trips should be allocated to each passenger type and trip purpose.³ This table also presents data regarding how well transit demand is being met in western El Dorado County. Overall, as presented in Table 36, EDCTA is meeting approximately 13.6 percent of total urban transit demand and 10.3 percent of total rural demand in western El Dorado County. Again, it is important to note that it is not financially feasible to expect that the transit services could meet *all* transit demand in the region.

³ Yuba-Sutter Transit operates similar services to EDCTA services, and the demographic characteristics are relatively similar.

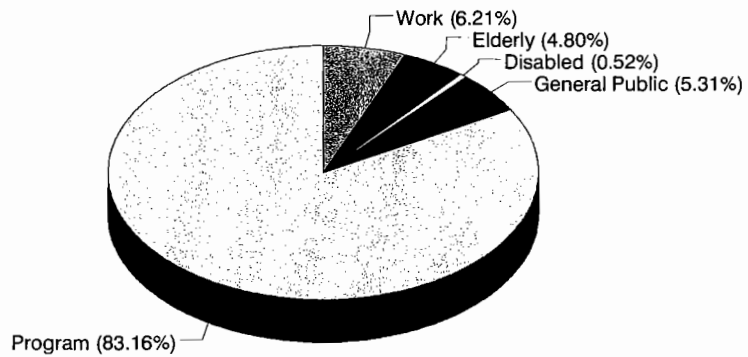
TABLE 36: Summary of 2000 Western El Dorado County Transit Demand

	Type of Trip					TOTAL	
	Work ⁽¹⁾	Elderly / Disabled	Other Non-Program ⁽²⁾	Total Non-Program	Program ⁽³⁾		
2000 Urban Demand Estimates							
Urban W. El Dorado County	617,310	98,430	324,590	1,040,330	244,170	1,284,500	
2000 Urban Ridership							
EDCTA – Urban	135,120	1,870	6,270	143,260	31,670	174,930	
2000 Urban Unmet Demand							
Urban W. El Dorado County	482,190	96,560	318,320	897,070	212,500	1,109,570	
Percent of Urban Demand Met: 2000							
Urban W. El Dorado County	21.9%	1.9%	1.9%	13.8%	13.0%	13.6%	
RURAL ESTIMATES							
	Type of Trip					TOTAL	
	Work	Elderly	Disabled	General Public	Total Non-Program		Program ⁽³⁾
2000 Rural Demand Estimates							
Rural W. El Dorado County	74,490	57,530	6,190	63,720	127,440	996,990	1,198,920
2000 Rural Ridership							
EDCTA – Rural	7,090	2,280	2,170	43,559	48,009	67,720	115,729
2000 Rural Unmet Demand							
Rural W. El Dorado County	67,400	55,250	4,020	20,161	79,431	103,612	250,443
Percent of Rural Demand Met: 2000							
Rural W. El Dorado County	9.5%	4.0%	35.1%	68.4%	37.7%	6.8%	9.7%
2010 TOTAL STUDY AREA ESTIMATES							
					Total		TOTAL
					Non-Program	Program ⁽³⁾	
2010 Demand Estimates							
Urban W. El Dorado County					187,090	358,450	545,540
Rural W. El Dorado County					145,030	1,134,590	1,279,620
				<i>Subtotal</i>	<i>332,120</i>	<i>1,493,040</i>	<i>1,825,160</i>
2010 Unmet Demand If Transit Service Are Unchanged from 2000							
Urban W. El Dorado County					43,830	326,780	370,610
Rural W. El Dorado County					97,021	1,066,870	1,163,891
				<i>Subtotal</i>	<i>140,851</i>	<i>1,393,650</i>	<i>1,534,501</i>
<p>Note 1: Based upon employee trip estimation methodology.</p> <p>Note 2: Mode split methodology minus employee trip methodology for urban core, TCRP methodology in rural areas.</p> <p>Note 3: TCRP methodology; allocated based on proportion of urban vs. rural demographics, factored up 50 percent for urban areas to account for greater propensity of program-related users to live in urbanized areas.</p> <p>Source: LSC Transportation Consultants.</p>							

**FIGURE 21: Western El Dorado County
Urban Transit Demand**



**FIGURE 22: Western El Dorado County
Rural Transit Demand**



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