

M. L. FRANK

B U R B A N K

Community Transit Needs Study

MILESTONE REPORT 1
Identification of Unmet Transit Needs

Prepared for
City of Burbank

Prepared by
Barton-Aschman Associates
Myra L. Frank and Associates

**BURBANK
COMMUNITY TRANSIT NEEDS STUDY**

**MILESTONE REPORT 1
IDENTIFICATION OF UNMET TRANSIT NEEDS**

Prepared for
City of Burbank

Prepared by
Barton-Aschman Associates
Myra L. Frank and Associates

December, 1984

TABLE OF CONTENTS

	<u>Page</u>
1. INTRODUCTION	1
2. EXISTING AND PROJECTED CONDITIONS	5
A. Geographic Setting	6
B. Land Uses	6
C. Demographic Characteristics	12
D. Employment Trends	15
E. Transportation Facilities and Services	17
1. Highways	18
2. Transit	20
3. Plans and Programs	30
3. IDENTIFICATION OF UNMET TRANSIT NEEDS	34
A. Analysis of Census of Population Data	34
1. Household Characteristics	35
2. Commuting Patterns	50
B. Analysis of Service	65
1. RID	65
2. Burbank Transportation Service	73
C. Surveys of Households and Transit Riders	74
1. Survey of Burbank Households	74
2. Survey of Burbank Transportation Services Riders	100
3. Survey of RID Riders	106
D. Interviews with Other Agencies	108
E. Key Conclusions	111
1. Existing Conditions	112
2. Projected Conditions	114

LIST OF TABLES

	<u>Page</u>
1. RTD Bus Routes in Burbank	22
2. Trip Origins of Burbank Airport's Boarding Passengers	29
3. Mode of Arrival to Burbank Airport	31
4. Age Distribution	37
5. Annual Household Income	41
6. Vehicle Availability	43
7. Public Transit Disability	46
8. Estimate of Transit Dependent Persons	49
9. Commuting Mode for Burbank Residents	51
10. Place of Work for Burbank Residents	54
11. Means of Transportation by Place of Employment	57
12. Percent of Workers Who use Car, Van, or Truck by Number of Vehicles Available	59
13. Percent of Workers Who Use Public Transportation by Number of Vehicles Available	60
14. Comparison of Workers by Travel Mode and Income	61
15. Mean Travel Times	62
16. RTD Service Exceptions in Burbank	67
17. Travel Times Using RTD Service	70
18. Locations Served Directly or Indirectly by RTD	71
19. Comparison and Transit and Auto Travel Times	72
20. How Often Ride Transit	75
21. Main Trip Purpose for Transit Trip	76
22. Last Time Used Transit or Taxi	78
23. Most Important Reason Why Don't Ride Transit	80
24. Importance of Factors in Selecting Mode of Travel	81
25. Would Strongly Consider Transit	83
26. Importance of Factories Switching to Transit	84
27. Reaction to Transit Service Improvements	88
28. Any Other Transit Riders in Household	89
29. Mode of Travel to Work	92
30. Place of Work	93
31. Travel Mode to School and Location of School	94
32. Trip Origins or Destinations of Burbank's Riders	101
33. Trip Frequency	103
34. Household Characteristics	105
35. Service Improvements Requested	107
36. Burbank's Transit Needs	118

LIST OF FIGURES

	<u>Page</u>
1. Burbank's Geographic Setting	7
2. Existing Major Land Uses	9
3. Redevelopment Projects	10
4. Regional Highway Network	19
5. RTD Bus Routes Serving Burbank, Glendale, Pasadena	24
6. Burbank Census Tract Boundaries	36
7. Youths (<17 years)	39
8. Elderly (>65 years)	40
9. Annual Household Incomes of Less Than \$15,000	42
10. Households with No Vehicles Available	45
11. Public Transit Disables Persons	47
12. Workers Commuting by Mass Transit	53
13. Workers Working Outside of Burbank	55
14. Travel Times of Mode	63

1.

INTRODUCTION

The City of Burbank is conducting this Community Transit Needs Study in order to accomplish the following:

1. Understand what the current and future needs for transit service are and will be for persons living or working in Burbank.
2. Consider the possible implementation of those facility and service options which could most directly address the identified transit needs of Burbank's residents, employers and employees.
3. Select for implementation those short-term and long-term actions which will be found to be most cost-effective and efficient, and can be staged in accordance with Burbank's financial resources.

When completed, Burbank's Community Transit Needs Study will consist of the three following milestone decisions and accompanying reports:

1. The identification of unmet transit needs,
2. The analysis of options, and
3. The selection of a recommended plan of action.

This report represents the completion of the first milestone, for it describes the effects that current and future land use, demographic and economic conditions, as well as documented local attitudes have now and will continue to have on determining the need for transit services in, to, or from Burbank. Before actually describing what steps were followed to identify the unmet transit needs of Burbank's residents and employees, it will first be useful to describe how the word need is being used in this study.

According to the dictionary, the word need has the following applicable meanings:

1. A lack of something requisite, desirable, or useful;
2. A condition requiring supply or relief; or
3. A pressing lack of something essential.

Although the word need implies urgency and may suggest an obligation to provide what is missing or not currently available, there is no purely

technical definition of need as it applies to the demand for transit services.

The reason for this conclusion is that unlike items such as food or water, the lack of transit services cannot be as directly connected to health or other similar effects. This is not to say, however, that the lack of transit services has no deleterious effects. On the contrary, the loss of mobility or accessibility which could be caused by not having viable transit services available, particularly for those persons who have no other means of transport, could affect a person's health, livelihood, or sense of community. What is missing is not the understanding that transit needs exist, but a set of standards or off-the-shelf guidelines which can be easily used to identify transit needs in a particular locale. Agreeing on what is a need for transit is therefore not only a proper subject for technical debate, but also for political discussion.

If identifying transit needs is not particularly easy, describing unmet transit needs is even more difficult. A simple example will most easily illustrate the point. In one case, an area with a large number of autoless households, but without any transit service would be labeled as having basic transit needs which are not being met. In another case, deciding if a similar area with very infrequent and indirect bus service has unmet transit needs is likely to become involved with questions such as how infrequent or indirect does service have to be before it becomes a total impediment to travel, and do all trip purposes require the provision of the same level of service before an unmet transit need is recognized?

Since identifying unmet transit needs requires both a technical and a political approach, the conclusions described in this report were reached after accomplishing the following steps:

1. Analyzing and projecting Burbank's land uses, the characteristics of its population, employment trends, transportation facilities and services, and land development and transportation plans and programs.
2. Analyzing 1980 Census of Population data for household characteristics and commuting patterns.
3. Analyzing the type and level of transit service provided by the Southern California Rapid Transit District (RTD) and Burbank's own transportation services for elderly and handicapped riders.
4. Surveying a sample of households in Burbank, surveying weekday and weekend riders of Burbank's transportation services, and analyzing recent telephone surveys of RTD riders.
5. Evaluating both existing and projected conditions.

The remaining chapters in this report describe what took place during the analysis, and what the key findings of the analysis were. Since unmet transit needs will keep changing over time, the needs which have been identified have been placed into categories such as pertaining to those who work in downtown Los Angeles or pertaining to households with no auto available.

2.

EXISTING AND PROJECTED CONDITIONS

The first step in the process of identifying the transit needs of Burbank's residents, employers, and employees consisted of describing and analyzing existing and projected conditions for the City's land uses and their development potential, household characteristics, employment type and intensity, and transportation facilities and services. This chapter, which contains the results of these analyses, serves as the basis upon which the identification of unmet transit needs rests. This is because the factors and characteristics being described in this chapter are linked to each other and affect each other in ways that serve to define and explain Burbank's transit needs.

A. GEOGRAPHIC SETTING

The City of Burbank is located only about 12 miles northwest of downtown Los Angeles at the southeastern edge of the San Fernando Valley. As seen by Figure 1, Burbank is strategically located within the Los Angeles metropolitan area because its residents are within 15 miles of not only the employment, cultural, and educational opportunities found in downtown Los Angeles, but also in Pasadena, West Los Angeles, Beverly Hills, Hollywood, Glendale, and most of the San Fernando Valley. In turn, Burbank's employers can draw on a labor pool which should be accessible from throughout the contiguous urbanized portions of Los Angeles County, the eastern portion of Ventura County, and the northern portion of Orange County. In summary, Burbank's central location within the most urbanized portion of the Southern California metropolis provides its residents the opportunity to work, shop, or study in a variety of places, and at the same time provides employers the opportunity to draw from Southern California's large labor force.

B. LAND USES

Since urban development began in Burbank in the 1880's, and since Burbank underwent a period of very rapid growth during the 1940's and 1950's, the city is almost entirely built up. Within the city limits, very little vacant land is available. The major undeveloped portion of Burbank consists of the Verdugo Mountains which form the eastern backdrop for the San Fernando Valley.

Burbank's residential land uses account for almost 40 percent of all land within the City limits, and the Verdugo Mountains for about 25 percent of the City's area. Approximately 1,250 acres within the City limits (or about 11 percent of the total) are designated for industrial land uses, and about

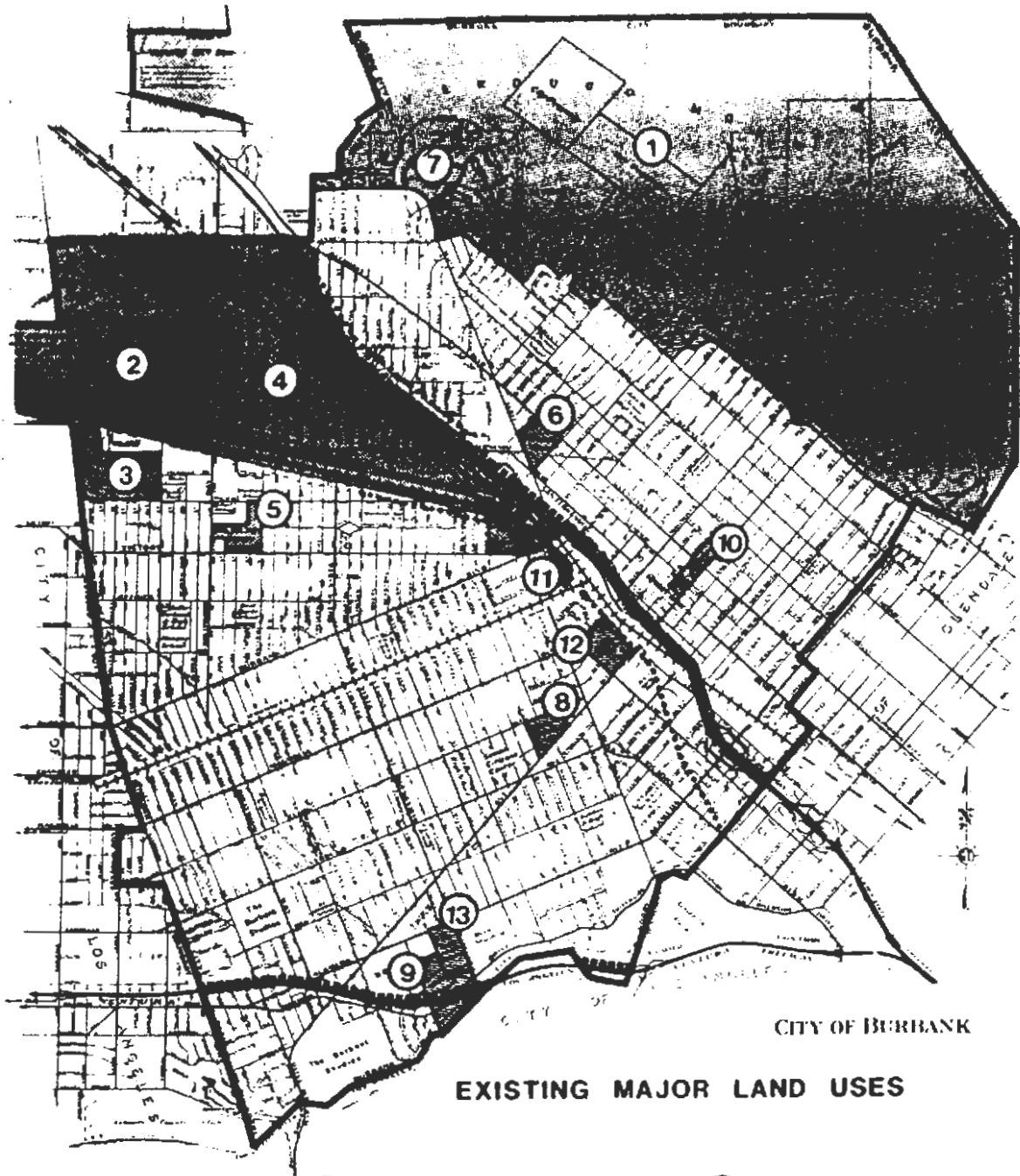


BURBANK'S GEOGRAPHIC SETTING
 BARTON-ASCHMAN ASSOCIATES, INC.

5 percent of the City's land is allocated to commercial land uses, including offices and retail buildings. Another major land use within the City limits is the Burbank Airport, which is owned and operated by the Burbank-Glendale-Pasadena Authority. The location of the City's existing major land uses is depicted on Figure 2.

In a manner similar to that of the Southern California megalopolis, Burbank does not have a single dominant activity center. In fact, as can be seen from Figure 3, the City has had to designate these separate redevelopment areas in order to foster continued orderly industrial and commercial development and redevelopment. The three redevelopment project areas can be described as follows:

1. Golden State - Located in the northwest corner of Burbank, and containing about 1,113 acres, including the Burbank Airport, this project was begun in 1970. The project's primary goal has been to revitalize this light and heavy industrial area by developing new industrial and office buildings or parks.
2. City Centre - The 212 acres included in this project are intended to become the commercial hub of Burbank. In fact, the planned construction of a regional shopping center, several mid- and high-rise office buildings, and multiple family dwelling units, and the recent construction of a hotel and adjacent restaurants are intended to make this area into an activity center capable of competing with Glendale, or other shopping/activity centers in the San Fernando Valley.
3. West Olive or Media District - The southwestern corner of Burbank contains a unique conglomeration of film, television, and

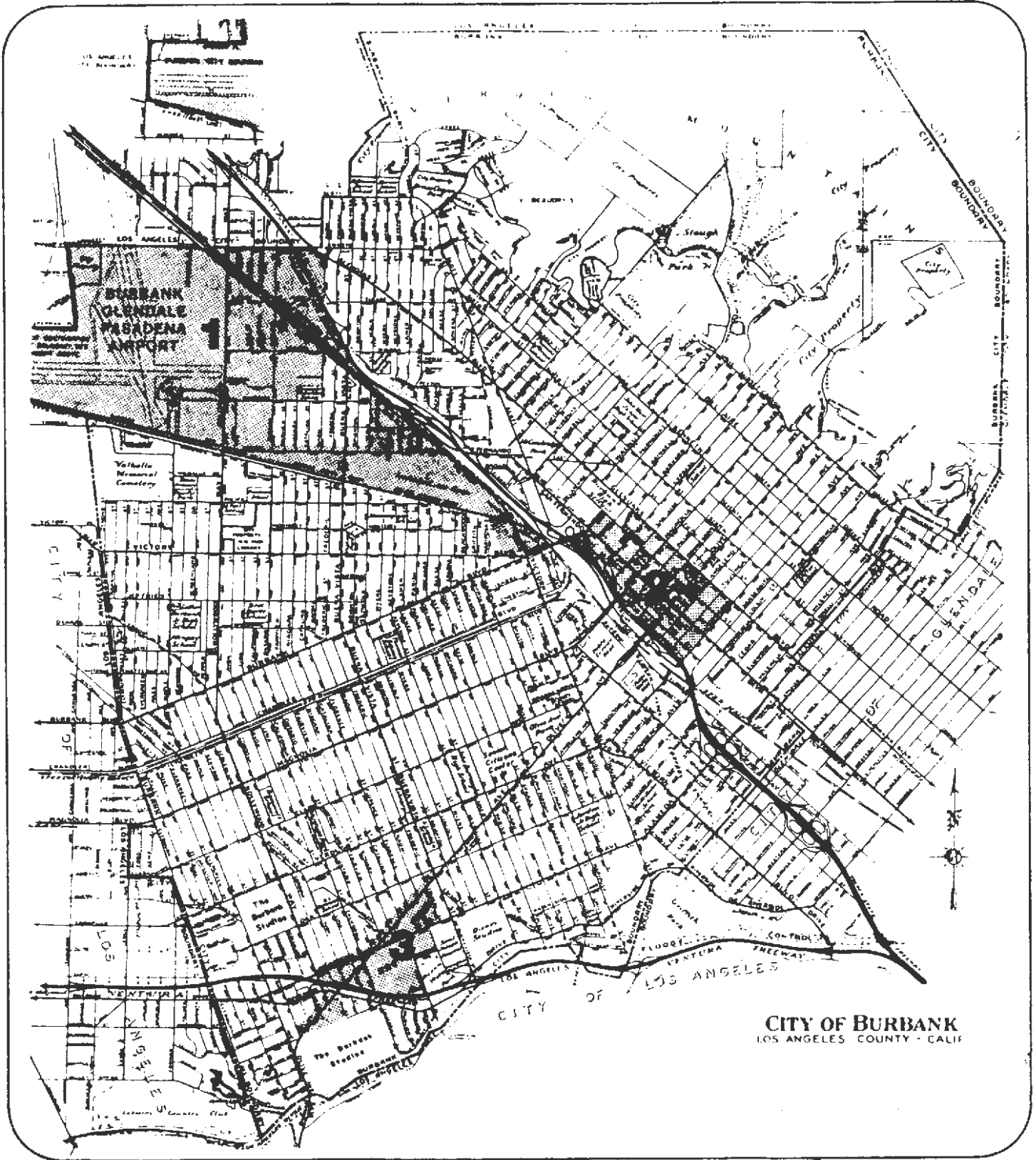


EXISTING MAJOR LAND USES

- | | | |
|---------------------|-----------------------------|----------------------------|
| ① VERDUGO MOUNTAINS | ⑦ BRACE PARK | ⑬ ST. JOSEPH HOSPITAL |
| ② AIRPORT | ⑧ OLIVE PARK | ▬▬▬▬▬▬▬▬▬▬ FREEWAY |
| ③ CEMETERY | ⑨ BUENA VISTA PARK | ▬▬▬▬▬▬ RAILWAY |
| ④ INDUSTRIAL AREA | ⑩ PUBLIC BUILDINGS | ⋯⋯⋯⋯ FLOOD CONTROL CHANNEL |
| ⑤ FOY PARK | ⑪ WATER RECLAMATION PLANT | |
| ⑥ McCAMBRIDGE PARK | ⑫ PUBLIC SERVICE DEPARTMENT | |

EXISTING MAJOR LAND USES

BARTON ASCHMAN ASSOCIATES, INC.



REDEVELOPMENT PROJECTS

BARTON ASCHMAN ASSOCIATES, INC.

recording studios and offices. This project is aimed at developing this area into a major center of media and entertainment related activities. Planned projects planned or underway include high-rise office buildings, a hotel, and also medical buildings related to the nearby St. Joseph Hospital.

Given the lack of large parcels of vacant land for industrial, commercial, or retail land uses, the City's redevelopment projects, as well as Southern California's on-going economic growth and increasing real estate prices, are all converging to create an on-going trend toward more intensive use of industrial, retail, or office sites. This trend will be reflected in the continued substitution of high-rise office buildings for low-rise office buildings or parking lots, vertical shopping centers for strip commercial lots, and industrial or office parks for single-story industrial buildings. These land use trends -- recycling and intensification -- will be responsible for increasing the City's employment base, since as stated earlier, Burbank is very strategically located within Southern California urbanized area. (The degree and amount of that change will be explained in greater detail in Section 2D. Employment Trends.)

As far as residential land uses are concerned, almost 80% of all land currently designated for residential development has been zoned for single family housing. Over the last decade, however, developers and others have made repeated requests to increase residential densities primarily by allowing more units to be built in a multiple family dwelling unit zone. This trend, which is likely to continue, is based on the following three basic factors: decreased availability of residential land, market demand, and increased development costs.

In the same manner that an older city like Burbank will be undergoing the second or vertical stage of urban development when it comes to industrial, retail, or office land uses, the same three factors mentioned above will create pressures for more dense residential development. With little undeveloped land available, the price of land available for residential development will be pushed to very high levels. In combination with increasing construction costs due to higher wages and the inflation of materials, only very expensive single family homes, beyond the range of affordability of many families, could be built. By increasing the number of dwelling units built on a site, the developer can reduce the unit price which includes the cost of land and construction.

As of June 1983, there were approximately 37,300 dwelling units in Burbank. Almost half of these were multiple family dwelling units, because almost all of Burbank's single family housing stock was built before 1960, single family homes have been demolished during redevelopment, and the demands from the marketplace for affordable prices have been addressed by the construction of apartments, townhouses and condominiums. Since Burbank has a very low vacancy rate for both single family and multiple family dwelling units, and since only steep mountainous parcels of land (zoned for single family units), or a few vacant or underused parcels of land are available in the areas of the City zoned for multiple family dwelling units, the pressure for continued construction of multiple family dwelling units will continue.

C. DEMOGRAPHIC CHARACTERISTICS

According to the U.S. Census of Population, Burbank had 84,625 residents in 1980. The median household income reported by Burbank's residents in 1980 was \$18,207, only about 3.7 percent above the median for Los Angeles County.

Almost 57 percent of the residents owned their own housing units, 62 percent lived in single family detached homes, while 34 percent had lived in their present dwelling more than 10 years.

Compared to the national and Los Angeles County population, Burbank has a higher proportion of older citizens. Over 15 percent of the City's population in 1980 was over 65 years of age, and the median age of Burbank's residents was 35.7 years.

In addition, Burbank has a higher proportion of households comprised of single individuals. According to the 1980 census, over 30 percent of Burbank's households were single-person households, with the preponderance of these consisting of senior citizens. Only 27 percent of Burbank's households had children, compared to a countrywide average of 35 percent.

Between 1960 and 1980, Burbank experienced a decline in population of slightly more than 6% with most of this decrease occurring between 1970 and 1980. This decline, which occurred despite steady growth of the City's housing supply, was due to a significant decrease in the average household size. Between 1970 and 1980, Burbank's average household size dropped from 2.6 to 2.4 persons. Without any immigration, this decrease would have resulted in an 8% decline in population. Due to the construction of new residential units during this period, and a resulting influx of new residents, the actual drop in population was 5%.

The decrease in Burbank's average household size is due to a declining birth rate (a nationwide phenomenon), and having a smaller proportion of housing units occupied by young families with children (a local condition). Traditionally, and particularly until the 1960's, Burbank was a family-oriented community. During the last 20 years, however, rising housing

costs have prevented many low- and moderate-income families from moving to Burbank. Concurrently, children of existing families have grown up and moved away, often leaving their parents as the sole occupants of single family homes. This latter trend is substantiated by a 24% drop in public school enrollment between 1970 and 1980.

Since 1980, there may have been a reversal in Burbank's declining population. City planners estimate that the current population is 3% to 4% above the 1980 level. This turnaround is due in part to a small increase in the birth rate caused by members of the "baby boom" generation who, having postponed child rearing in pursuit of their careers, are now having children. Another explanation is the increase in housing density caused by a recent trend towards the development of multi-family, rather than single-family dwellings. This land use change has created new affordable housing opportunities and has attracted small, often non-family households to Burbank.

Continued population growth in Burbank is limited by the availability of residential land. The 1980 housing stock of approximately 37,300 units comprised about 85% of the City's residential zoning capacity of 43,400 units. The actual residential capacity, however, is probably less than that allowed by current zoning for two reasons. First, because of the permanence of existing nonconforming uses, some residentially zoned parcels will not be available for residential infill. Second, because of development constraints, such as parking requirements, many projects cannot be built to the full density allowed by zoning.

Based on the current General Plan, which was prepared in 1965, the City of Burbank has a designated capacity for about 43,400 dwelling units. Since 37,300 units exist now, this means that about 6,000 swelling units could be

built in compliance with the current General Plan. At the prevailing 2.4 persons per dwelling unit, the City's population could increase by 14,400. However, this amount of growth is not expected by Burbank's city planners because not every under-utilized residential parcel is a candidate for development due to its condition or that of adjacent development, some residential lots are used for parking or other uses, and some lots are limited to below their maximum designated density by development constraints.

The City of Burbank and the Southern California Association of Governments forecast a year 2000 population of approximately 89,000. Assuming the continuation of the current household size of 2.4 persons, the construction of an additional 1,800 units would be required to accommodate this growth. This would consume approximately one-third of the City's remaining residential construction zoning capacity. It is evident that, under the existing General Plan and zoning, the City of Burbank is nearing its population ceiling.

If the new dwelling units are priced within the financial reach of young families, both Burbank's total and school age populations will increase. Additional population growth is likely when single family homes currently occupied by widowed heads of households are bought by younger and larger families who are drawn by Burbank's excellent proximity to other employment and cultural activity centers. To buttress this forecast, the Burbank Board of Education predicts an end of the decline in school enrollment by 1987.

D. EMPLOYMENT TRENDS

In the context of regional statistics, Burbank is considered a "job-rich" city in that the number of jobs available is far larger than the number of

Burbank residents who are in the labor force. While Burbank has about 42,000 residents who are employed, its employers provide about 70,000 job opportunities. Since according to the 1980 Census, 36 percent of Burbank's employed residents work in Burbank, this means that about 55,000 people work in Burbank who are not residents of the City.

Burbank has an unusually diverse economic base for a city of its size. Aircraft and related industries, as well as a growing number of television, film, and recording media and entertainment industries comprise the bulk of the City's jobs. This condition can be seen by the following partial listing of the City's largest employers: Lockheed California - 17,000; Walt Disney Productions - 2,800; St. Joseph Medical Center - 2,300; The Burbank Studios - 1,800; NBC - 1,700; and, Warner Brothers - 1,000. (These are the most current estimates available and reflect existing economic conditions nationwide, and in these specific industries.)

Most of the industrial land in the City can be found within the boundaries of the Golden State Redevelopment Project. Based on the development status report issued by the City, as of June 1984, approximately 564,000 gross square feet of office or industrial buildings were under construction or had been recently completed. Agreement with the Burbank Redevelopment Agency had been either approved or were pending for another 91,000 gross square feet of development.

For the City Centre Redevelopment Project area, the status report issued in August, 1984, indicated that about 340,000 square feet of offices and 30,000 square feet of retail or commercial uses were either completed or under construction. An 850,000 square foot regional shopping center, and 632,000 square feet of additional office and retail development are proposed or are in design for this area.

Burbank's third redevelopment project, the Media District, is experiencing the largest amount of office construction. Including sites in the immediate vicinity of the redevelopment project area, 1,426,500 square feet of mid-rise and high-rise office buildings and 61,000 square feet of retail space have been recently completed or are under construction. An additional 1,928,700 square feet of offices and 18,000 square feet of retail/commercial space are proposed or are in design.

Translating the number of square feet of development into jobs provides perhaps a clearer indication of the magnitude of retail, industrial, and office growth projected for Burbank. The City presently has about 72,000 to 75,000 jobs available, with fluctuations caused by hirings and layoffs making a more precise estimate impossible. Based on current development plans, Burbank is likely to have at least 90,000 jobs by the year 1990, assuming no major changes in its major industries, and the construction of currently planned retail and office projects. At least 11,000 of the new jobs are projected for the Media District, about 3,500 for Town Centre, and the remainder scattered throughout the City. If projects which are now being proposed are actually built, then at least 6000 more jobs within the Media District could be added, most likely after 1990.

E. TRANSPORTATION FACILITIES AND SERVICES

Burbank is not only strategically located within the Southern California megalopolis because of its geographic setting, but also because of the highway, transit, railroad, and air travel services which are available to its residents and employers. The key feature of the transportation facilities and services currently available to Burbank or planned for the future are described in this section.

1. HIGHWAYS

As noted in Figure 4, Burbank is directly served by the Golden State and Ventura Freeways. The Golden State Freeway (Interstate 5) serves north-south traffic throughout the San Fernando Valley, to or from downtown Los Angeles, and Central Los Angeles County, and also intra-regional or interstate travel. This freeway is generally six lanes wide in Burbank, with additional lanes provided for weaving or merging, particularly at freeway-to-freeway interchanges.

The other freeway located within the City limits is the Ventura Freeway (Route 134). This freeway serves east-west traffic in the southern San Fernando Valley across to Pasadena. The Ventura Freeway, which generally follows Burbank's southern city limits, consists of eight travel lanes with additional auxiliary lanes provided at freeway interchanges.

Since these two freeways are an integral part of Southern California's extensive freeway network, Burbank's residents or employees are no more than two miles away from a freeway which will provide them freeway access to the rest of the region. In fact, the City's three redevelopment projects are located adjacent to either the Golden State or Ventura Freeways.

There are currently no plans to significantly increase the capacity of the freeway system in this part of the San Fernando Valley. No new freeways are planned to be built inside or near Burbank. Project planning studies and environmental documentation have been completed for



REGIONAL HIGHWAY NETWORK

BARTON-ASCHMAN ASSOCIATES, INC.

FIGURE
4

widening the Route 101 (Ventura) Freeway west of Burbank from eight to ten lanes, but no such studies are underway for either the Golden State or Ventura Freeways.

Major changes in the capacity of Burbank's arterial streets are also not projected. Due to right-of-way limitations, current arterials will not be widened, except at intersections. New streets are planned for additional hillside development, but these are not likely to affect major travel flows.

With no major increases in highway capacity planned or programmed, operational improvements will assume the predominant role in addressing future congestion delays. As will be noted in the upcoming section on transportation plans and programs, during the next ten years, actions such as restricting parking on major arterials and freeway ramp metering will be as common as constructing highways was during the 1950's and 1960's.

2. TRANSIT

Burbank is served by a regional transit operator and a municipal transit service. The Southern California Rapid Transit District (RTD) provides local and express bus service within its service area which includes most of Los Angeles County and portions of Orange, Riverside, and San Bernardino Counties. Burbank's Transportation Service is operated by the City's Park and Recreation Department to provide Dial-A-Ride service for elderly and handicapped residents of the City.

RTD. RTD operates about 200 local and express bus routes and deploys about 2200 buses during peak periods. RTD categorizes its routes according to the following descriptions of service: local, limited stop, express, and special services (shuttles).

Fifteen RTD local and express routes provide service within Burbank's city limits. As can be seen from Table 1, twelve of these are local bus routes which operate seven days a week. The other three routes provide freeway based express service to downtown Los Angeles during weekday commute periods only.

The Golden Mall serves as the hub of RTD service in Burbank with twelve RTD routes serving the downtown area. Four of these routes (RTD 154, 163, 164, 165) terminate in downtown Burbank, while the other eight routes provide through service. Ten of these routes, the local ones, operate all day, while the express routes operate only during the weekday peak periods.

The level of services provided by the RTD in Burbank varies greatly by route. Route 94 between downtown Los Angeles and San Fernando is the only one which provides 10-minute headways⁽¹⁾ in peak periods and 20-minute headways during weekday off-peak periods, Saturdays, and Sundays. Routes 93 (downtown Los Angeles to San Fernando) and 96 (downtown Los Angeles to Van Nuys) provide the next best level of service -- 20 minutes during the peaks and 30 to 40 minutes at other times. The bulk of the routes provide 25 minute headways (RTD 92, 163, 164, and 165) or 35 minute headways (RTD 154 and 169) during peak periods. Two routes (RTD 97 and 183) provide 40 minute headways during peak periods, while the express has routes provide the lowest frequencies⁽²⁾ -- only two inbound morning trips and two outbound trips.

1 The interval of time between buses.

2 The inverse of headways - the number of buses arriving in an hour.

TABLE 1

RTD BUS ROUTES IN BURBANK

Route Number	Type of Service	Weekdays Peak	Headways		Sundays and Holidays	Hours of Operation			Terminal Points
			Weekdays Off-Peak	Saturdays		Weekdays	Saturdays	Sundays/Holidays	
92	Local	25	30	30	60	4:30 a.m.- 2:15 a.m.	5:06 a.m.- 2:15 a.m.	4:07 a.m.- 2:15 a.m.	Downtown L. A. San Fernando
93	Local	20	30	40	60	3:59 a.m.- 9:53 p.m.	4:01 a.m.- 9:21 p.m.	6:09 a.m.- 9:12 p.m.	Downtown L. A. San Fernando
410	Express	2 Trips	No Service	No Service	No Service	6:00 a.m.- 6:30 a.m. 4:00 a.m.- 4:30 a.m.	No Service	No Service	Downtown L. A. San Fernando
94	Local	10	20	20	22	5:01 a.m.- 1:51 a.m.	5:40 a.m.- 1:50 a.m.	5:40 a.m.- 1:50 a.m.	Downtown L. A. Sylmar
96	Local	20	30	40	40	4:39 a.m.-11:35 p.m.	4:58 a.m.-11:35 p.m.	6:50 a.m.-11:36 p.m.	Downtown L. A. Van Nuys
97	Local	40	55	55	55	5:30 a.m.- 7:02 p.m.	6:21 a.m.- 7:02 p.m.	7:20 a.m.- 7:02 p.m.	Downtown L. A. Sherman Oaks
154	Local	35	40	60	60	5:34 a.m.- 8:26 a.m.	5:48 a.m.- 8:21 p.m.	7:48 a.m.- 8:21 p.m.	Northridge Burbank
163	Local	24	24	33	33	5:10 a.m.-12:13 a.m.	5:06 a.m.-12:13 a.m.	6:57 a.m.-12:13 a.m.	Canoga Park Burbank
164	Local	24	24	30	30	5:30 a.m.-11:19 p.m.	5:45 a.m.-11:16 p.m.	7:10 a.m.-11:16 p.m.	Canoga Park Burbank
165	Local	24	24	30	30	5:30 a.m.- 8:28 p.m.	5:30 a.m.- 8:25 p.m.	6:45 a.m.- 8:02 p.m.	Canoga Park Burbank
169	Local	35	40	60	No Service	5:33 a.m.-8:06 p.m.	5:42 a.m.- 8:10 p.m.	No Service	Canoga Park Sunland
183	Local	40	40	50	60	5:44 a.m.- 7:42 p.m.	5:40 a.m.- 7:45 p.m.	8:01 a.m.- 7:47 p.m.	Glendale North Hollywood
212	Local	25	45	30	30	5:01 a.m.- 2:27 a.m.	5:15 a.m.- 2:27 a.m.	5:30 a.m.- 2:27 a.m.	Inglewood Burbank
413	Express	2 Trips	No Service	No Service	No Service	6:15 a.m.- 7:00 a.m.	No Service	No Service	Downtown L. A. Van Nuys

As can be seen by reviewing Figure 5, the RTD bus routes operate on nearly all the major arterials within Burbank. Since the intersection of Olive Avenue and San Fernando Boulevard (the Golden Mall) is served by the largest number of bus routes in Burbank (6), RTD bus routes operate on all of the streets in downtown Burbank.

Currently, adult fares on RTD local buses are only 50 cents, transfers cost 10 cents, with monthly passes available for students, elderly and regional travellers. Pass prices range from \$4 for students and elderly persons to \$55 for persons using long distance express bus routes.

These fares are likely to change starting in Fiscal Year 1986, however, when the Los Angeles County Proposition A Fare Reduction Program is modified. As a result of the passage of Proposition A, bus fares in Los Angeles County were reduced to 50 cents for adults in FY 1983. Based on Proposition A's guidelines, three years after the enactment of the Fare Reduction Program, the Los Angeles County Transportation Commission, which is empowered to distribute the revenues collected from Proposition A's 1/2 cent sales tax for transit, must reallocate some of the funds toward the construction of rail lines. Since the LACTC and the transit operators affected, particularly RTD, have not yet adopted next year's operating budgets, the amount of the likely fare increase is not yet known.

Burbank Transportation Service. The City of Burbank, through its Park and Recreation Department, operates six vans which provide demand/response transportation service for elderly and handicapped residents of Burbank.

Points of Interest

- Ambassador College (177, 180, 181)
- Burbank Glendale Pasadena Airport (94, 183, 185, 189, 212)
- Burbank Community Hospital (92, 93, 94, 96, 97, 154, 163, 184, 185, 183, 410, 413)
- Burbank Golden Mall (92, 93, 94, 96, 97, 154, 183, 184, 185, 183, 410, 413)
- The Burbank Studios (96, 97, 212)
- Cal Tech (177)
- Delacorte Gardens (177)
- Disney Studios (96, 97)
- Eagle Rock Plaza (81, 84, 180, 181)
- Forest Lawn Memorial Park (90, 91)
- Glendale Adventist Medical Center (201)
- Glendale College (85, 90, 91, 177)
- Glendale Galleria (92, 93, 177, 180, 181, 183, 201, 410)
- Glendale Community Hospital (183)
- Glendale Memorial Hospital (92, 93, 94, 180, 181, 183)
- Griffith Park/L. A. Zoo (97)
- Huntington Library and Art Gallery (79, 254, 379)
- Huntington Memorial Hospital (177, 256, 483)
- Jet Propulsion Laboratory (177, 268)
- NBC Studios (96, 97)
- Norton Simon Museum (177, 180, 181)
- Occidental College (83, 84)
- Pasadena City College (177, 187, 188, 256, 267, 401)
- Plaza Pasadena (180, 181, 187, 185, 256, 267, 401, 402)
- Rose Bowl (177)
- St. Joseph's Hospital (96, 97)
- St. Luke's Hospital (204, 268)
- Universal Studios (150, 152, 420, 421, 424, 425)
- Verdugo Hills Hospital (177)

RTD line numbers providing service to points of interest are shown in parentheses.

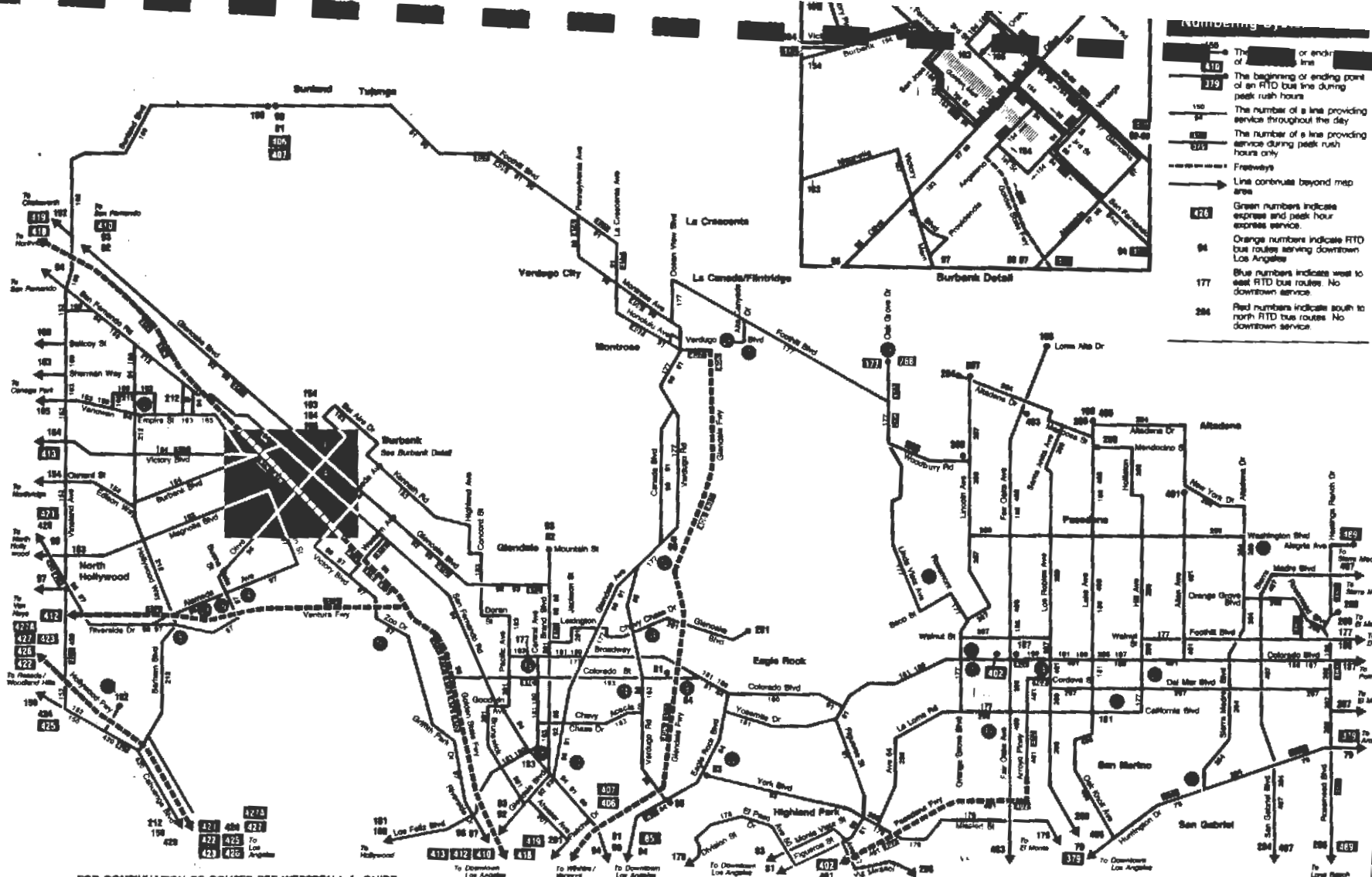
FOR CONTINUATION OF ROUTES SEE SAN FERNANDO VALLEY GUIDE

FOR CONTINUATION OF ROUTES SEE WESTERN L.A. GUIDE

FOR CONTINUATION OF ROUTES SEE DOWNTOWN L.A. GUIDE

FOR CONTINUATION OF ROUTES SEE EAST L.A. GUIDE

FOR CONTINUATION OF ROUTES SEE SAN GABRIEL VALLEY GUIDE



NUMBERING SYSTEM

- 90 The beginning or ending point of an RTD bus line
- 416 The beginning or ending point of an RTD bus line during peak rush hours
- 319 The number of a line providing service throughout the day
- 94 The number of a line providing service during peak rush hours only
- 421 Freeways
- Line continues beyond map area
- 476 Green numbers indicate express and peak hour express service
- 94 Orange numbers indicate RTD bus routes serving downtown Los Angeles
- 177 Blue numbers indicate west to east RTD bus routes. No downtown service.
- 284 Red numbers indicate south to north RTD bus routes. No downtown service.

RTD BUS ROUTES SERVING BURBANK, GLENDALE, PASADENA

BARTON-ASCHMAN ASSOCIATES, INC.

Service was initiated in 1974 using social service transportation funds available from the Older Americans Act. The current annual operating budget of \$357,000 includes about \$200,000 in funds from the Older Americans Act, and about \$157,000 in Proposition A funds allocated to the cities in Los Angeles County for use on transit projects.

Dial-A-Ride service is provided seven days a week, with the hours of operation ranging from 8:15 a.m. - 8:15 p.m. during weekdays, and 8:15 a.m. - 4:15 p.m. during weekends. Calls to request service must be made two working days in advance of the trip, and calls requesting trips are scheduled for specific time slots between 8:30 a.m. and 2:00 p.m. depending on the characteristics of the rider and the trip purpose. Although service is provided almost exclusively within Burbank's city limits, trips for medical appointments in limited areas of North Hollywood and Glendale are scheduled for Monday or Tuesday.

Since the setting of fares is not permitted by the Older Americans Act, the City has developed a suggested contribution of 50 cents per round trip for all trips, except that those persons travelling to the Joslyn Community Center for daily nutrition can pay \$1.50 per week. This contribution schedule means that participants in the daily nutrition program would pay 15 cents per one-way trip (assuming they use the service five days a week), while all others would pay 25 cents per one-way trip.

Approximately 5,000 trips per month are provided to qualified residents of Burbank. Qualified residents consist of persons aged 60 and above (seniors) and disabled persons of any age (handicapped) who have registered with the program. Approximately 31 percent of all trips are made by seniors, and the remaining 9 percent by handicapped persons. Approximately 78 percent of the handicapped tripmakers are under 60 years old.

Assuming that each rider makes 2 trips, the Burbank Transportation Service is currently being used by 80 people per day. Of these, an average of 73 persons would be seniors, and 7 persons would be handicapped.

During an average month, 11,935 miles were operated by the Burbank Transportation Service resulting in a productivity of .4 passengers per mile. This figure is very similar to that reported by most of the other dial-a-ride operations throughout Los Angeles County.

Converting the 5,000 monthly trips into 60,000 annual trips and dividing into the \$357,000 annual operating budget means that each trip costs \$5.95. Since the contribution schedule ranges between 15 and 25 cents per trip, the current average subsidy per trip of \$5.70 to \$5.80 per trip means that contributions (fares) account for about 2 to 4 percent of the service's operating budget, and remainder is provided by Older Americans Act and Proposition A funds.

Other Paratransit Providers. In order to identify any other providers of transit service in or to Burbank, the Los Angeles County Community Resource Information Bank (CRIB) directory for the Burbank/Glendale area was reviewed. This review indicated that the only social service facility in Burbank which could be labeled as major is St. Joseph's Medical Center. This is the largest health care facility in the San Fernando Valley serving 40,000 patients annually. St. Joseph's Medical Center, however, does not operate any of its own paratransit services.

The five paratransit services which do operate in the area are as follows:

- o American National Red Cross - Burbank: Emergency demand/response service is provided to destinations outside of Burbank. This

program was designed to supplement the Burbank Transportation Service which provides service only within Burbank. The Red Cross utilizes two vehicles which are driven by volunteers and complete about three trips per week. The vehicles are not equipped with handicapped facilities. This program was funded entirely by the National Red Cross.

- o Burbank YMCA: Service is provided to children who participate in after-school programs at the YMCA facility. Three vehicles carry 150-200 children per week to destinations in Burbank and Glendale. Funding for this service is provided through internal YMCA sources.
- o Glendale Dial-A-Ride: Service is provided to elderly and handicapped persons only within the City of Glendale.
- o The Joslyn Center: A city-operated senior center which offers paratransit services to seniors through the Burbank Transportation Service.,
- o Handi-Trans: A city-operated program which offers paratransit services to the handicapped through the Burbank Transportation Service.

Commuter Rail. Passenger train service is currently not available in Burbank. Although the Southern Pacific's mainline tracks which are used by Amtrak's Coast Starlight train between Los Angeles and Seattle run through Burbank, there is no stop in Burbank.

In 1982, the State of California briefly operated a commuter train between Oxnard and downtown Los Angeles. That service was beset by many problems, including the opposition of the Southern Pacific railroad, and a lack of long-term funding support. The State of California, which attempted to provide the service through Caltrans (the California Department of Transportation), relinquished the service shortly after it was begun. Burbank's old railroad depot, located south of Olive Avenue across the Golden State Freeway from Town Centre, was not utilized as a commuter rail stop. Instead, a new passenger loading platform was built about 1/4 mile south of the Burbank Airport terminal.

Burbank Airport. Approximately 2.8 million passengers use the Burbank Airport annually. Including all businesses located on airport property, approximately 2,700 persons work at the airport.

Public transit service to the Burbank Airport is currently provided by RTD local routes 94, 163, 165, 169 and 212. The only provide carrier operating to the Burbank Airport is Silver Express which provides demand responsive van service from hotels in Pasadena, Glendale, and Burbank. Other private carriers used to private limousine, bus, and van service to the Burbank Airport, but found the demand for their service to be too low to continue operations.

According to data collected in 1982, only 8 percent of the Burbank Airport's boarding passengers originated in Burbank, with far larger percentages originating from Central Los Angeles, the remainder of the San Fernando Valley, and the west San Gabriel Valley. As noted from Table 2, the trip origins do not vary greatly between weekdays when most trips will be for business purposes, and weekends when recreation and personal business trips will predominate.

TABLE 2

TRIP ORIGINS OF BURBANK AIRPORT'S BOARDING PASSENGERS

<u>ORIGIN</u>	PERCENTAGE OF RESPONDENTS			
	<u>WEDNESDAY</u> Including All Areas	L.A. County Only ¹	<u>SATURDAY</u> Including All Areas	L.A. County Only ¹
Burbank	7%	8%	7%	9%
Beverly Hills-Hollywood	6	7	3	3
Central Los Angeles	15	17	18	21
East Los Angeles	2	2	2	2
West Los Angeles	6	7	5	6
East San Fernando Valley	14	15	17	20
North San Fernando Valley	1	1	1	1
West San Fernando Valley	15	17	14	15
San Gabriel Valley	5	5	5	5
West San Gabriel Valley	16	18	14	15
Northern Los Angeles County	3	3	3	3
Kern County	1		1	
Orange County	1		2	
Riverside County	-		1	
San Bernardino County	1		-	
Santa Barbara County	1		-	
Ventura County	8		6	
	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>

¹ Represents 87 percent of all trip origins reported.

Source: Technical Memorandum No. 1 - Burbank - Glendale - Pasadena Airport Passenger Survey. Prepared for Burbank - Glendale - Pasadena Airport Authority, February 1983. Table 8.

During the week, approximately 3/4 of all passengers arrived at the airport in their cars. Adding another 17 percent for those who drove a rental car leaves 9 percent to be divided for all other modes. As can be seen from Table 3, public buses or shuttles were used by only 5 percent of all arrivals at the airport.

3. PLANS AND PROGRAMS

A variety of state, regional, and local agencies have planning or programming responsibilities which will affect the provision of transportation services in Burbank. This section contains a description of current or proposed planning or feasibility studies, and short term or long-term capital programs.

Highways. According to the most recent systems planning done by Caltrans, the only freeway projects to be built within the next five years include adding a southbound fourth lane on I-5 between Magnolia and Burbank, and an auxiliary lane between Lanark and Roscoe. For the next five years, there are no projects programmed for Route 134. Within the next 10 to 20 years, as funds become available, Caltrans would program the widening of I-5 by one lane in each direction. Possible improvements to be undertaken in that time frame would include the partial reconstruction of the Route 134/I-5 interchange or the Route 134/Route 101 interchange.

Transit. the Proposition A Rail Transit Plan endorsed by the voters in November, 1980 does not include a rail transit line in or through Burbank. The two nearest rail lines which the Los Angeles County Transportation Commission (LACTC) intends to build using Proposition A funds are the Los Angeles Metro Rail which would terminate at Universal City, and a light rail

TABLE 3

MODE OF ARRIVAL TO BURBANK AIRPORT

<u>MODE</u>	PERCENTAGE OF RESPONDENTS	
	<u>WEDNESDAY</u>	<u>SATURDAY</u>
Private Auto	74%	85%
Rental Car	17	9
Taxi	4	3
Public Bus (RTD)	-	-
Hotel/Hotel Courtesy Shuttle	1	1
Limousine	3	1
Other	1	1
	100%	100%

MODE OF DEPARTURE FROM AIRPORT

<u>MODE</u>	PERCENTAGE OF RESPONDENTS	
	<u>WEDNESDAY</u>	<u>SATURDAY</u>
Same Mode	82%	86%
Different Mode	9	3
Will not fly into Burbank	9	11
	100%	100%

line emanating from downtown Los Angeles and terminating in Glendale. According to the 1984 Regional Transportation Plan prepared by the Southern California Association of Governments (SCAG), there are no other specific proposals for transit guideways directly serving Burbank. Although a Burbank branch light rail transit line is included in the Regional Transportation Plan as a corridor option to be considered by LACTC, no specific work is underway on the analysis or definition of this potential project.

One of the most specific objectives of the Regional Transportation Plan is to increase the number of peak hour and daily trips made on transit or in carpools and vanpools. For the corridor that includes Burbank, SCAG is proposing that transit serve 18 percent of all peak hour peak-direction trips. This objective would represent nearly a four fold increase from the 1980 modal split of 4.8 percent. Attaining this decrease in the percentage of vehicle trips is required because the peak-hour traffic demand in this area will exceed the capacity of the freeways and arterials by 50 percent, compared to 20 percent now. Options such as light rail transit, a guideway or lanes for high occupancy vehicles (busway), commuter rail, or rapid transit remain to be considered.

Burbank's Redevelopment Projects. Within the last year, transportation plans have been prepared for the Town Centre and Media District projects. The Downtown Traffic and Transportation Plan⁽³⁾ contains recommendations for street network changes, intersection changes, First Street, on-street and off-street parking, a possible transit center, bus stops, and pedestrian facilities.

3 City of Burbank Downtown Traffic and Circulation Plan. Prepared for the Burbank Redevelopment Agency by TDA Inc. March 1984.

Six potential sites for a downtown transit center were evaluated, with no clearcut recommendations provided for the function, size, or preferred location of the transit center. Although the conversion of San Fernando Street south of Olive from a pedestrian mall to a bus-only street was considered advantageous from the standpoint of consolidating bus operations, concerns over the incompatibility of this use with adjacent development reduced its attractiveness. A site at First and Palm was considered good for the provision of passenger amenities, but poor from the standpoint of increased route circuitry. Finally, the existing site at Golden Mall and Olive was left as the most likely focal point for bus routes serving downtown Burbank.

The transportation and circulation plan included within the Media District Development Framework Plan⁽⁴⁾ recommends specific traffic mitigation measures for the proposed development of 2-3 million square feet of office and retail projects. Recommendations include minor modifications and improvements to the street system, the provision of satellite parking, and shuttle buses linking the sections of the Media District.

The proposed shuttle buses operating in the Media District would serve the satellite parking structure in the peak periods, and restaurants and shops during the midday. Ridership and revenue forecasts for the shuttle bus service were not presented in the Media District Plan.

4 Burbank Media District Development Framework Plan. Prepared by the Arroyo Group, et al. for the Burbank Redevelopment Agency.

3.

IDENTIFICATION OF UNMET TRANSIT NEEDS

This chapter contains the descriptions of the analyses which were conducted in order to identify the existing and future transit needs of Burbank's residents, employers, and employees. A variety of information sources, including 1980 Census of Population data, and travel time comparisons for auto and transit trips, were used. The descriptions of these analyses and the highlights of the evaluation follow.

A. ANALYSIS OF CENSUS OF POPULATION DATA

Two kinds of data collected during the 1980 Census of Population were analyzed. The first kind consisted of characteristics of the households such as age, auto availability, and income. The second kind consisted of journey-to-work characteristics. The following two sections describe how

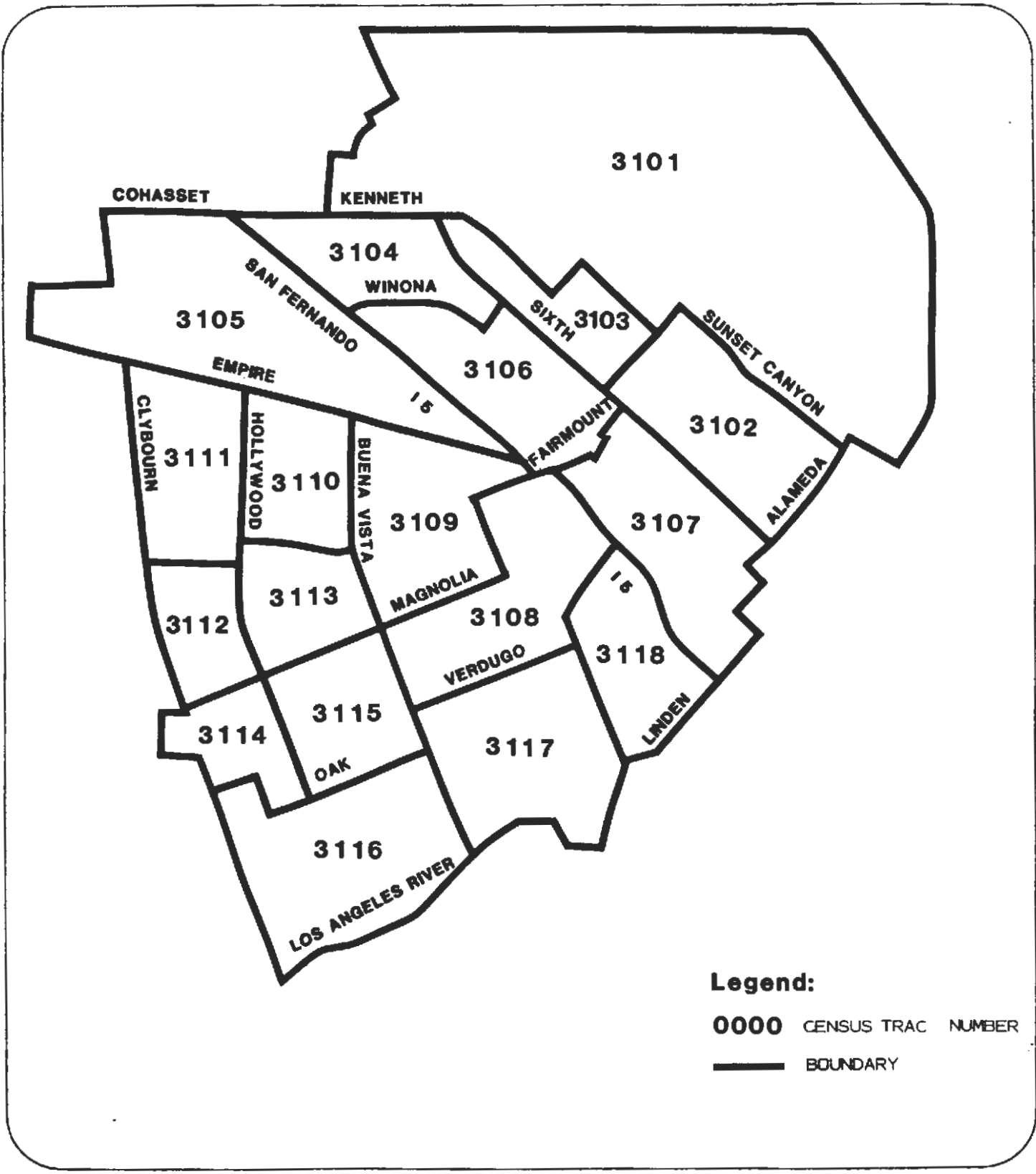
these data were used to identify the existing transit needs of Burbank's residents.

1. HOUSEHOLD CHARACTERISTICS

The decennial Census of Population collects a variety of data which can be used to determine the likely need for transit services which the households within each census tract will exhibit. For the 1980 Census, Burbank was divided into 18 census tracts, which as shown in Figure 6, have as their boundaries major streets or freeways.

Socioeconomic groups that are most likely to be classified as being transit dependent include senior citizens, youths, low income persons, and the handicapped. Identifying the concentrations of these groups is essential to identifying possible transit needs. 1980 Census of Population data are available for age, auto availability and income characteristics. The Census did not collect data for the total number of handicapped residents. However, an analysis of data pertaining to public transit disability is included in this report as a surrogate.

Youth and Senior Citizens. Burbank's population is slightly older than the county average. Approximately 15% of Burbank's population is 65 years of age or older, while 22% of the population is below the age of 17. These figures compare to 10% and 27%, respectively for Los Angeles County. Since 1970, the number of senior citizens in Burbank has increased by 38%, while the number of youths has decreased by 12%. Table 4 shows the proportions of youths and senior citizens by census tract. As might be expected, concentrations of youths generally occur in areas with low elderly populations, and vice versa. The highest percentages of youths are found



Legend:
0000 CENSUS TRAC NUMBER
 ——— BOUNDARY

TABLE 4
AGE DISTRIBUTION

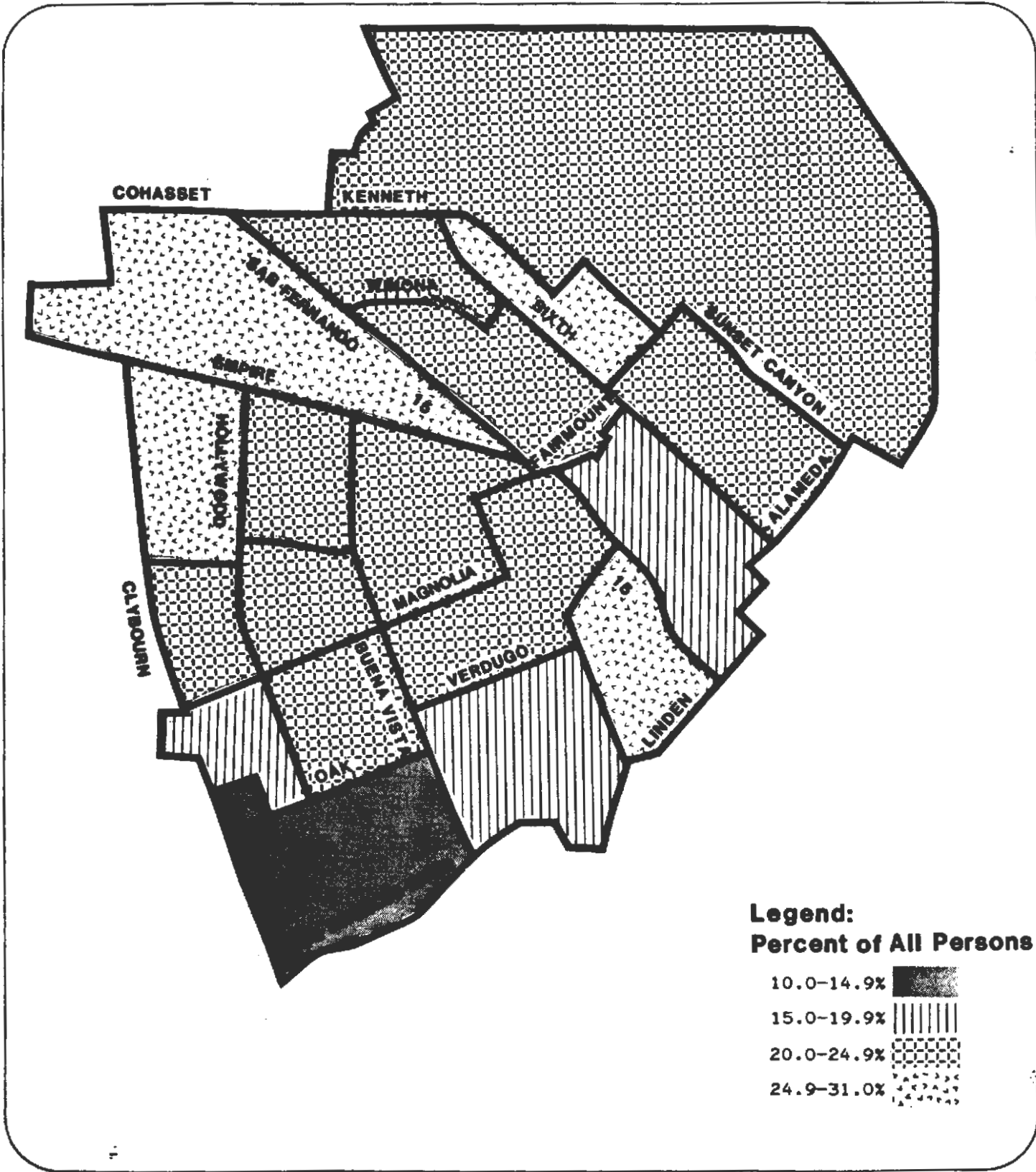
<u>Census Tract</u>	<u>Population</u>	<u>0 - 17 Years</u>	<u>18 - 64 Years</u>	<u>65+ Years</u>
3101	4932	24.9%	66.7%	8.4%
3102	7185	20.0	62.5	17.5
3103	3207	25.2	65.8	9.0
3104	3318	22.3	64.0	13.7
3105	2417	30.4	62.0	7.6
3106	5915	23.0	62.4	14.6
3107	8194	17.8	65.1	17.0
3108	4411	20.8	61.3	17.9
3109	6430	23.6	62.6	13.8
3110	3649	24.0	61.5	14.5
3111	3570	25.1	61.6	13.3
3112	3018	22.1	63.2	14.6
3113	3624	22.1	61.0	16.8
3114	2212	17.7	61.3	21.0
3115	4846	22.5	60.8	16.6
3116	6627	10.7	70.5	18.8
3117	5819	17.4	61.8	20.8
3118	5251	28.5	62.7	8.7
CITY TOTAL	84,625	21.5	63.5	15.1
COUNTY	7,477,503	27.2	62.9	9.9

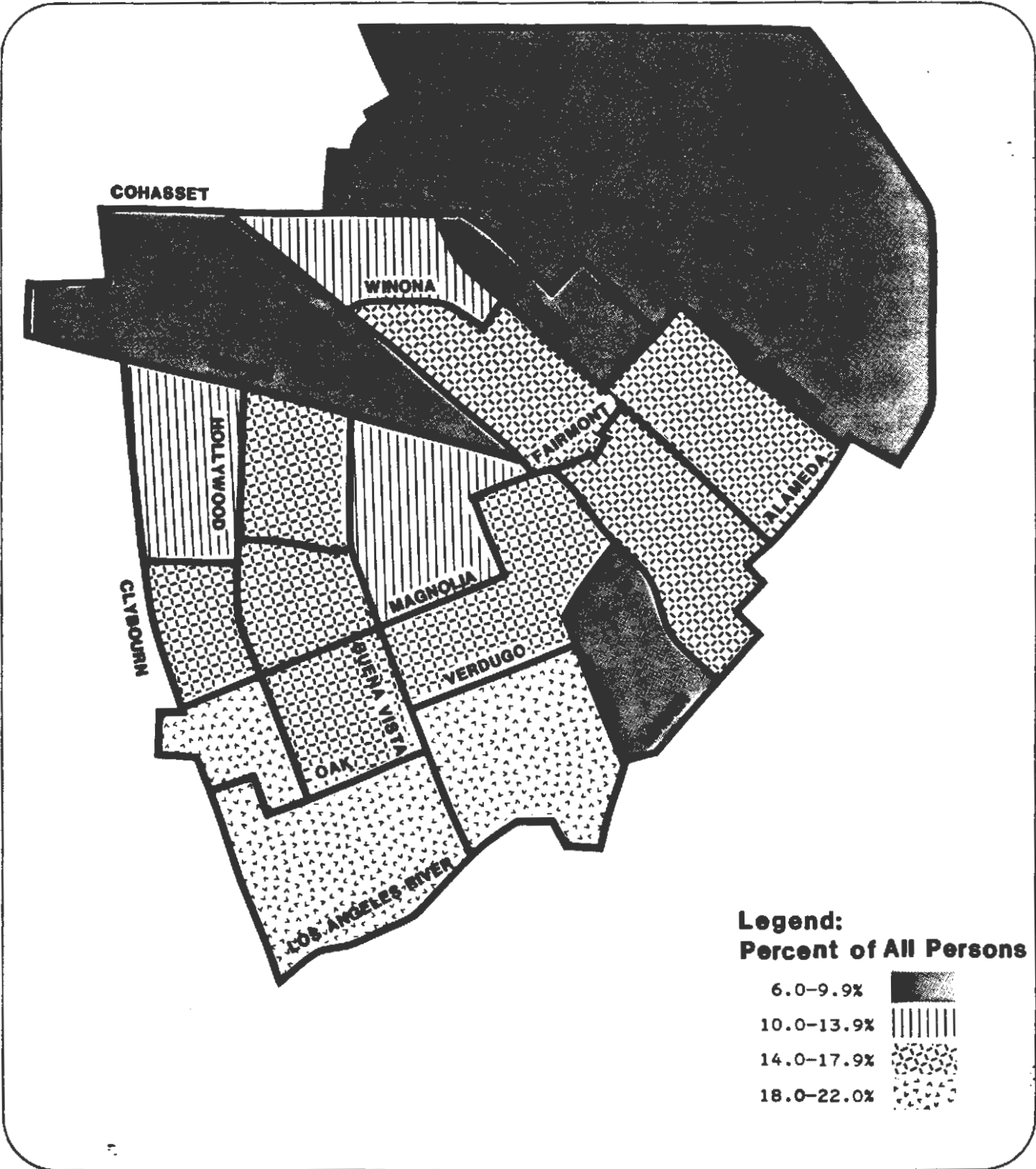
in two neighborhoods (census tracts 3107 and 3118) which have large Hispanic populations.

Neighborhoods with the highest proportions of senior citizens are located in the southernmost portion of the city in the vicinity of the Ventura Freeway (census tracts 3114, 3116 and 3117). The proportions of youths and senior citizens residing in each of Burbank's census tracts are shown in Figures 7 and 8, respectively.

Low Income Households. In 1980, the median household income in Burbank was \$18,207, or 3.7% higher than the county median. Los Angeles County defines low income households as those earning less than \$14,050 annually. The Census, however, has aggregated income data into intervals of \$2500, which makes it impossible to determine the exact number of households earning less than \$14,050. It is possible, however, to determine the number of households earning less than \$15,000. Therefore, in this analysis, an annual income of \$15,000 was used as the point below which a household is defined as having low income. In 1980, approximately 40% of all households in Burbank had an annual income of less than \$15,000, compared to nearly 43% for Los Angeles County. Table 5 shows for each census tract the percentage of households falling into three income ranges, including \$0 - \$15,000. The areas containing the highest proportions of low income households are the Hispanic neighborhoods defined above (census tracts 3105, 3107, and 3118). Figure 9 shows the proportion of low income households in each census tract, and reveals that the lowest income households are concentrated near downtown, and along the Golden State Freeway.

Vehicle Availability. Slightly more than 9% of Burbank's households are without vehicles, compared to 13% for the county as a whole. Table 6 summarizes vehicle availability by census tract within Burbank. The area





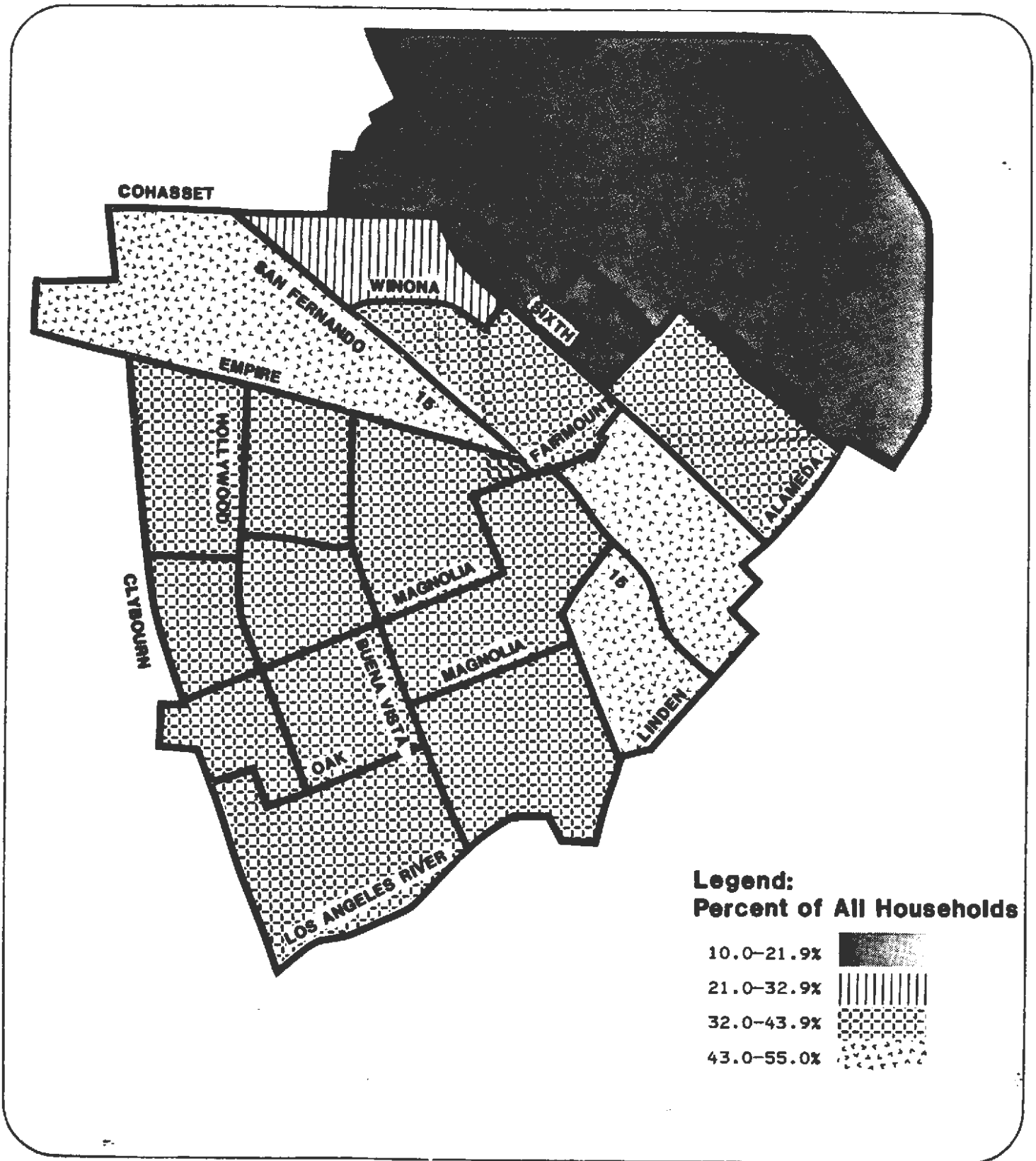
ELDERLY (> 64 YRS)

BARTON ASCHMAN ASSOCIATES, INC.

TABLE 5

ANNUAL HOUSEHOLD INCOME

<u>Census Tract</u>	<u>Total Households</u>	<u>\$0 - \$14,999</u>	<u>\$15,000 - \$19,999</u>	<u>\$20,000 +</u>
3101	1683	13.0%	8.0%	79.0%
3102	3123	39.1	14.4	46.5
3103	1035	10.8	11.3	77.9
3104	1315	27.9	13.1	58.9
3105	858	46.3	16.3	37.4
3106	2518	41.3	16.9	41.7
3107	4149	54.8	16.2	28.9
3108	1889	43.6	15.0	41.3
3109	2503	35.9	13.1	51.1
3110	1492	43.3	13.8	42.9
3111	1346	33.0	13.9	53.0
3112	1266	40.3	16.3	43.3
3113	1496	37.9	14.4	47.9
3114	1056	42.2	14.6	43.3
3115	2014	43.2	16.2	40.4
3116	3651	43.0	16.4	40.6
3117	2530	40.9	17.4	41.7
3118	2060	49.0	14.3	36.7
CITY TOTAL	35,984	40.2	14.9	44.9
COUNTY	2,735,091	42.8	13.1	44.3



ANNUAL HOUSEHOLD INCOMES LESS THAN \$ 15,000

BARTON ASCHMAN ASSOCIATES, INC

FIGURE

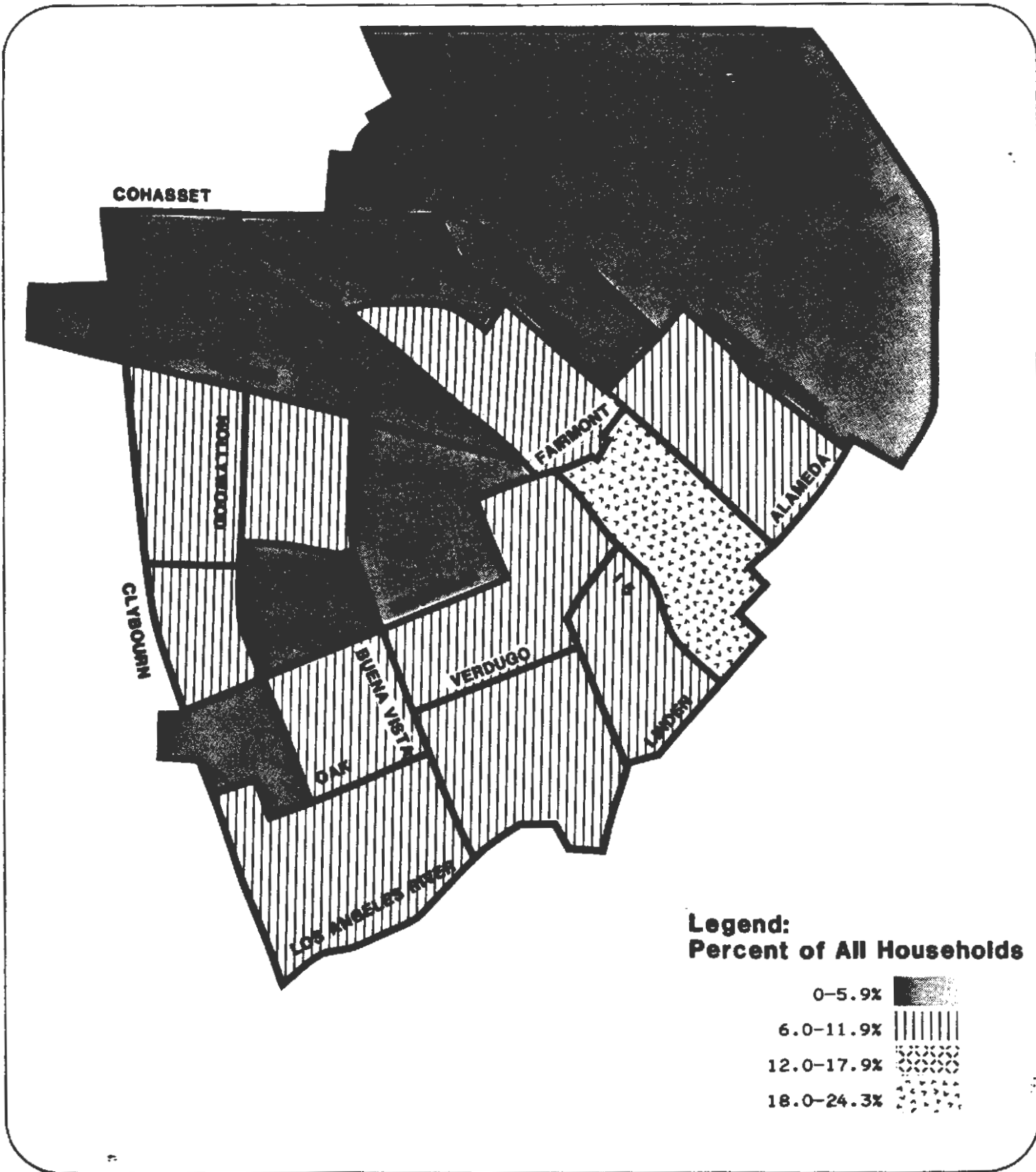
TABLE 6
VEHICLE AVAILABILITY

<u>Census Tract</u>	<u>Occupied Housing</u>	Vehicles Available Per Occupied Housing Unit			
		<u>0</u>	<u>1</u>	<u>2</u>	<u>3+</u>
3101	1668	0.8%	16.1%	45.7%	37.4%
3102	3110	7.6	41.8	32.3	18.4
3103	1065	-	15.2	54.0	30.8
3104	1308	4.7	36.3	43.0	16.0
3105	863	4.4	49.1	32.7	13.8
3106	2494	7.7	49.3	29.9	12.6
3107	4121	24.3	46.4	23.3	5.9
3108	1904	10.5	44.5	30.1	14.9
3109	2502	5.3	38.5	32.6	23.6
3110	1486	10.0	41.9	26.2	22.0
3111	1330	7.2	28.5	41.5	22.8
3112	1280	8.4	41.2	27.4	23.0
3113	1523	5.4	43.0	34.9	16.7
3114	984	5.5	40.7	38.0	15.9
3115	2014	8.4	40.4	35.8	15.4
3116	3645	7.7	55.0	26.5	10.9
3117	2554	10.5	40.6	31.8	17.2
3118	2029	11.7	44.2	31.5	12.6
CITY TOTAL	35,880	9.2	41.6	32.4	16.8
COUNTY	2,730,469	12.7	38.7	30.9	17.8

which has by far the highest proportion of occupied housing units without vehicles is near and south of downtown. Not surprisingly, this area also has the highest proportion of low income households. The incidence of occupied housing units (households) without vehicles is shown in Figure 10. Although it is not surprising that the hillside census tracts contain the lowest percentage of autoless households, it is somewhat surprising that some of the census tracts north of Magnolia and west of I-5 also have very few autoless households.

Public Transit Disability. This condition is defined by the Census as the inability to use public transit as a result of a physical or mental condition. Identification of public transit disabled populations will assist in determining the need for specialized demand responsive transit services for the handicapped. The proportion of public transit disabled residents over 16 years of age in each census tract is shown in Table 7. Burbank has nearly the same percentage of public transit disabled persons as the county as a whole, 3.5% and 3.8%, respectively. For the most part, the proportion of public transit disabled residents is constant throughout Burbank. As can be seen from Figure 11, however, the neighborhoods bordering the north side of the Golden State Freeway (census tracts 3106 and 3107), and those in the southern part of the city where many senior citizens reside (census tracts 3114, 3115, 31161 and 3117) exhibit a slightly higher incidence of public transit disability.

Transit Dependent Areas. If not having an auto available is used as the single most important factor in projecting a general need for transit services, then the Census data would indicate that the census tract bounded by Fairmount, Sixth, I-5, and the southern city limits is the area in Burbank with the largest number of transit dependent households. If low annual household incomes were combined with low vehicle availability per



NO VEHICLES AVAILABLE PER HOUSEHOLD

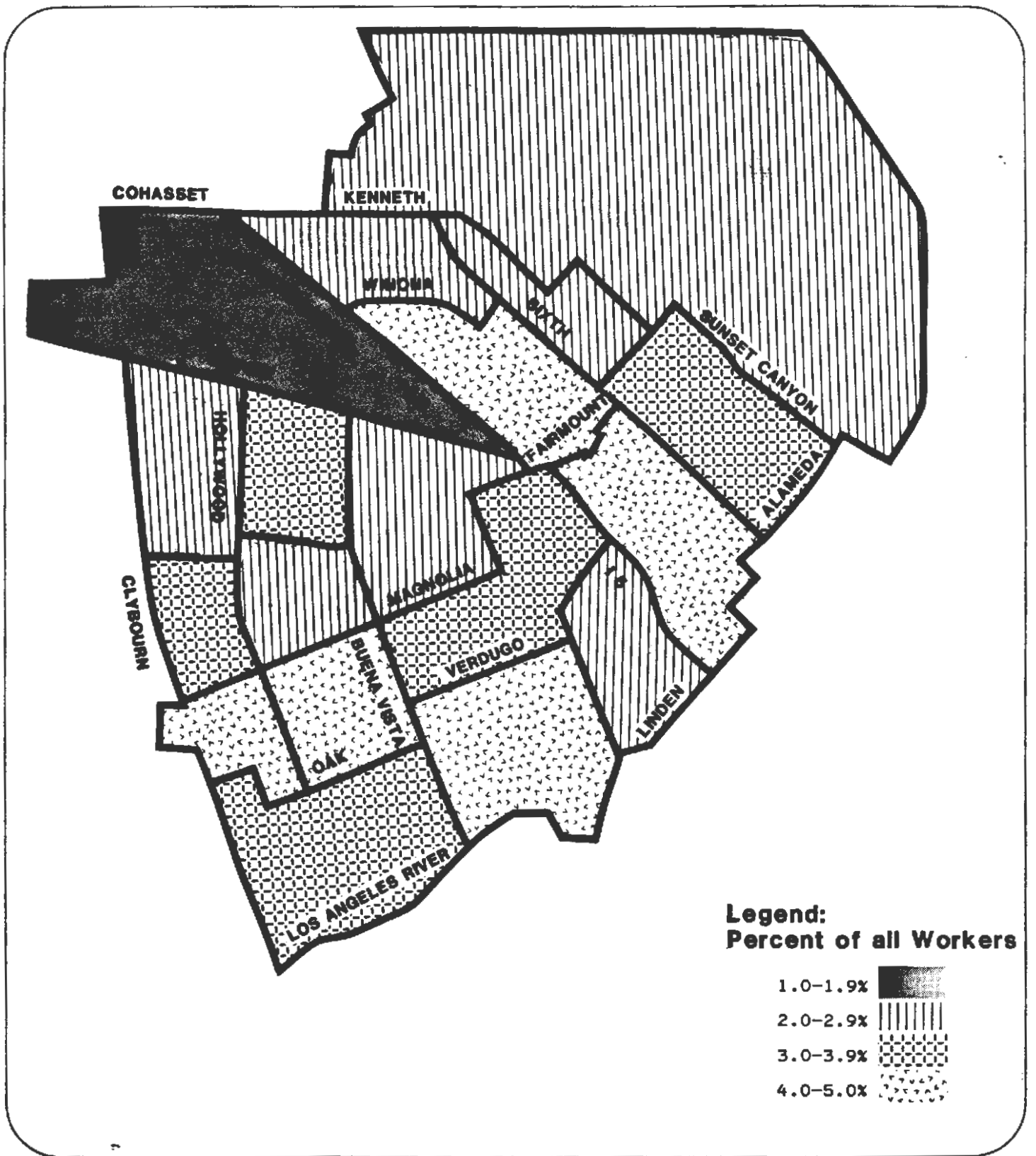
BARTON ASCHMAN ASSOCIATES, INC.

FIGURE

TABLE 7

PUBLIC TRANSIT DISABILITY

<u>Census Tract</u>	<u>Population Over 16 yrs</u>	<u>With Public Transit Disability</u>
3101	3899	2.3%
3102	5980	3.0
3103	2527	2.0
3104	2677	2.1
3105	1750	1.0
3106	4614	5.0
3107	6804	5.0
3108	3618	3.5
3109	5133	2.9
3110	2907	3.6
3111	2816	2.8
3112	2433	3.0
3113	2891	2.6
3114	1892	4.9
3115	3929	4.4
3116	5756	3.8
3117	4675	4.7
3118	3919	2.2
CITY TOTAL	68,220	3.5
COUNTY	5,576,107	3.8



PUBLIC TRANSIT DISABLED PERSONS (> 16 YRS)

BARTON ASCHMAN ASSOCIATES, INC.

household to project a need for transit services, then the census tract described above (3107) would still be the highest priority area for transit. If a high projection of elderly households were combined with low vehicle availability per household to project a need for transit services, then census tract 3107 would still be ranked first.

Using other combinations of household characteristics would not diminish the high priority for serving census tract 3107 with effective transit services, but would add other census tracts. For example, if a high proportion of elderly households which include persons who may not be able to drive were combined with low annual household income, then the census tracts bordering Magnolia (3108, 3112, 3113, and 3115) would become secondary candidate areas for transit service.

The census data can also be used to estimate the number of transit dependent persons by census tract, and the total for Burbank. Table 8 lists the number of persons who were over 65 years of age, or whose annual household income was less than \$15,000, or who didn't have an automobile available in their household. The range in populations, 7,922 to 34,204, is not necessarily indicative of transit need. What is clear is that at least 7,922 persons in Burbank need transit or some other form of transportation, such as walking or rides from friends or neighbors, in order to make their work, medical, or shopping trips. The 12,769 residents over 65 years of age provide another large pool of potential transit riders, although some of these same persons have already been included in the group with no autos available. However, at least 30 percent of this group would consist of people who cannot drive due to health reasons, or physical or mental handicaps. Probably the weakest link between a factor and transit dependency would be made by using annual household incomes of less than \$15,000 as an indicator. As can be seen by comparing the number of persons with no auto available and the

TABLE 8

ESTIMATE OF TRANSIT DEPENDENT PERSONS

Census Tract	Elderly (over 65 yrs)	Low Annual Income (<\$15,000)	No Auto Available ¹
3101	414	526	32
3102	1257	2930	567
3103	289	269	-
3104	455	881	148
3105	184	953	91
3106	864	2496	192
3107	1393	5458	1001
3108	790	1978	480
3109	887	2158	318
3110	529	1550	357
3111	475	1066	230
3112	441	1224	258
3113	609	1361	197
3114	465	1070	130
3115	804	2088	406
3116	1246	3768	674
3117	1210	2484	644
3118	457	2422	570
CITY TOTAL	12,769	34,704	7,922

¹ Number of occupied dwelling units times 2.4 persons per unit.

number of persons in the low income category, the large majority of the low income persons (approximately 75 percent) have a vehicle available in their household. The low income group could be encouraged to make transit trips through a low tariff policy, but it is not as easy to generate transit trips from this much larger group than from the group of persons with no auto available.

2. COMMUTING PATTERNS

As part of each decennial Census of Population, a 20% sample of households is selected to answer questions on how they travel to work. A 10% sample of households is selected to answer more questions about where they work and the time they spend traveling to work. These information sources, when combined, comprise the Urban Transportation Planning Package (UTPP) which is available from the Census, and is used to provide origin/destination travel data.

Whereas in the previous section, data were analyzed in order to estimate how many of Burbank's residents might ride transit, this section describes how many of Burbank's residents actually rode transit to work. The Census data described above were analyzed in order to compare the means of transportation reported for the journey-to-work with income and auto availability data.

Commuting Mode for Employed Residents. Burbank's commuters exhibit a lower degree of transit usage than the county as a whole. Of the Burbank residents who work, 3.9% commute by mass transit and 14.4% travel in carpools or vanpool. These shares of travel modes compare to county figures of 7.1% and 17.1% respectively. Table 9 shows a proportional breakdown of

TABLE 9

COMMUTING MODE FOR BURBANK RESIDENTS

<u>Census¹ Tract</u>	<u>Total Workers</u>	<u>Drive Alone</u>	<u>Carpool</u>	<u>Mass Transit</u>	<u>Walk Only</u>	<u>Other²</u>
3101	2488	82.5%	14.9%	1.3%	0.4%	0.8%
3102	3556	75.3	16.6	3.0	2.7	2.4
3103	1645	80.4	15.6	0.5	0.8	2.7
3104	1584	74.6	14.7	3.8	1.6	5.3
3105	1129	63.2	21.9	5.8	5.2	3.9
3106	2897	77.1	10.8	3.7	4.1	4.3
3107	4359	65.2	15.5	8.7	7.9	2.6
3108	2017	71.4	14.1	2.6	7.4	4.5
3109	3078	82.0	11.4	1.9	2.1	2.5
3110	1785	70.9	17.8	5.9	2.9	2.5
3111	1710	76.2	17.1	3.8	1.5	1.4
3112	1334	78.3	10.7	5.5	2.6	3.0
3113	1690	74.1	14.5	3.0	3.5	5.0
3114	1070	81.7	11.5	2.9	2.8	1.1
3115	2315	71.3	16.1	3.6	3.4	5.4
3116	3977	72.8	13.1	4.2	7.3	2.7
3117	2830	76.2	11.7	2.8	5.5	3.8
3118	2545	69.4	15.1	5.2	6.9	3.4
CITY TOTAL	42,009	74.3	14.4	3.9	4.2	3.1
COUNTY	3,471,764	69.7	17.1	7.1	3.8	2.4

¹ Of residency.

² Includes work at home.

commuting mode by census tract of residency, and Figure 12 illustrates the incidence of mass transit usage throughout Burbank.

According to the 1980 census data, only 1638 of Burbank's 42,009 employed residents traveled to work using transit. This number is slightly lower than the number of persons who walk to work, and is about one fourth the number of people carpooling to work.

The census tracts in which fewer than the citywide average of 3% of all workers rode transit to work include those located east of Sixth (3101, 3102, 3103); between Empire, Buena Vista, Verdugo, and I-5 (3108, 3109); west of Buena Vista but north of Oak (3118, 31214, and 3115); and south of Verdugo east of Buena Vista (3117). The highest percentage of mass transit commuters are found in census tract which includes downtown (3107). As indicated earlier, this census tract also contains the highest proportion of autoless households. Other census tracts with higher than average percentages of transit commuters include 3105 near the Burbank Airport, and 3112 north of Magnolia between the western city limits and Hollywood Way.

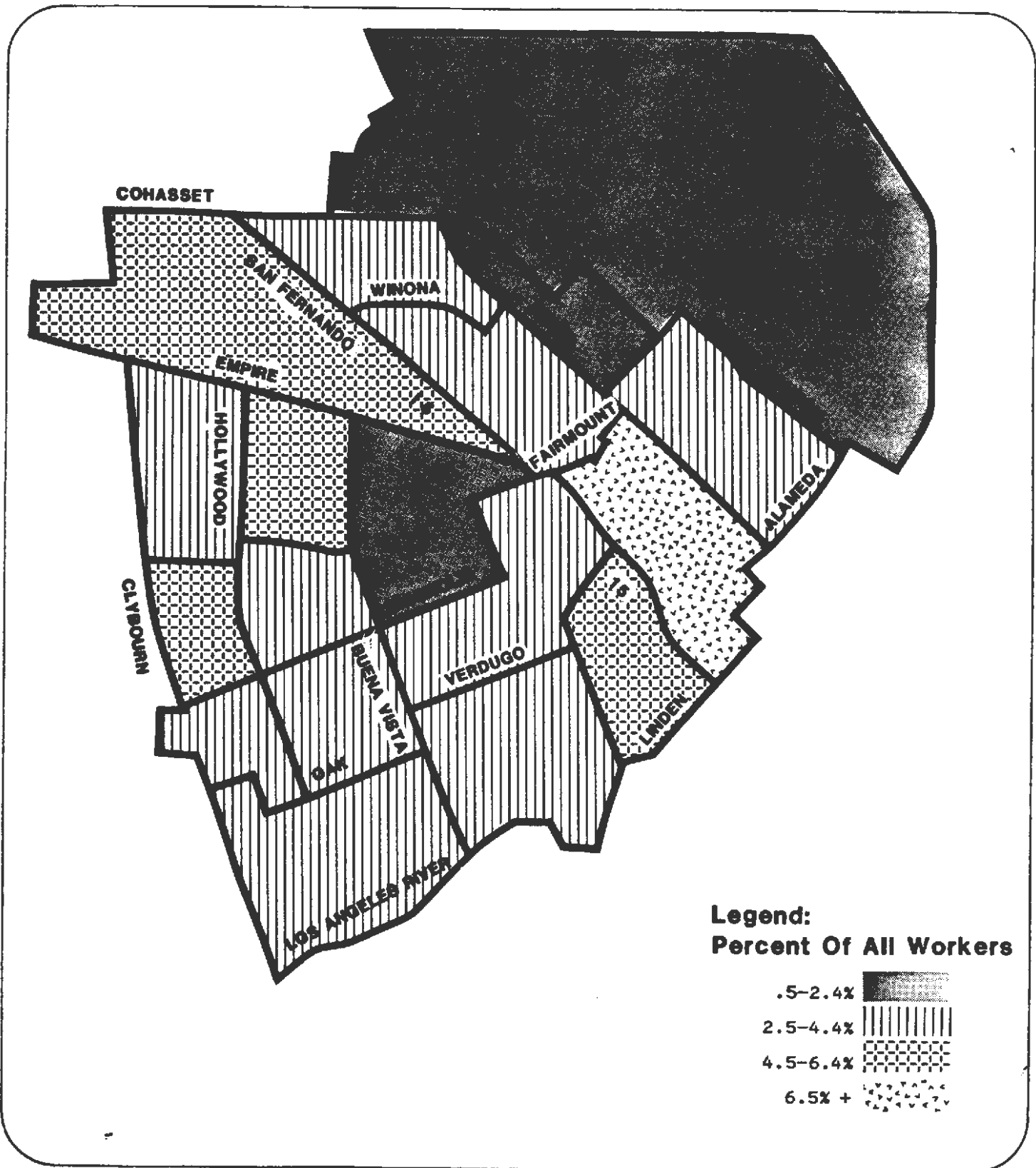
Place of Work for Employed Residents. Where people work is as strong a determinant of transit usage as income, and in some cases auto availability. Fifty-four percent of Burbank's workers are employed outside of the City, while nearly 37% work in Burbank (the remainder of workers did not report their workplace). The same figures for Los Angeles County are 52% and 37% respectively. Table 10 indicates the place of work reported by census tract. As is shown in Figure 13, the proportion of workers employed outside of Burbank is fairly constant throughout the city. The largest percentages of employed residents commuting to work outside of Burbank are found in census tracts 3114 and 3102.

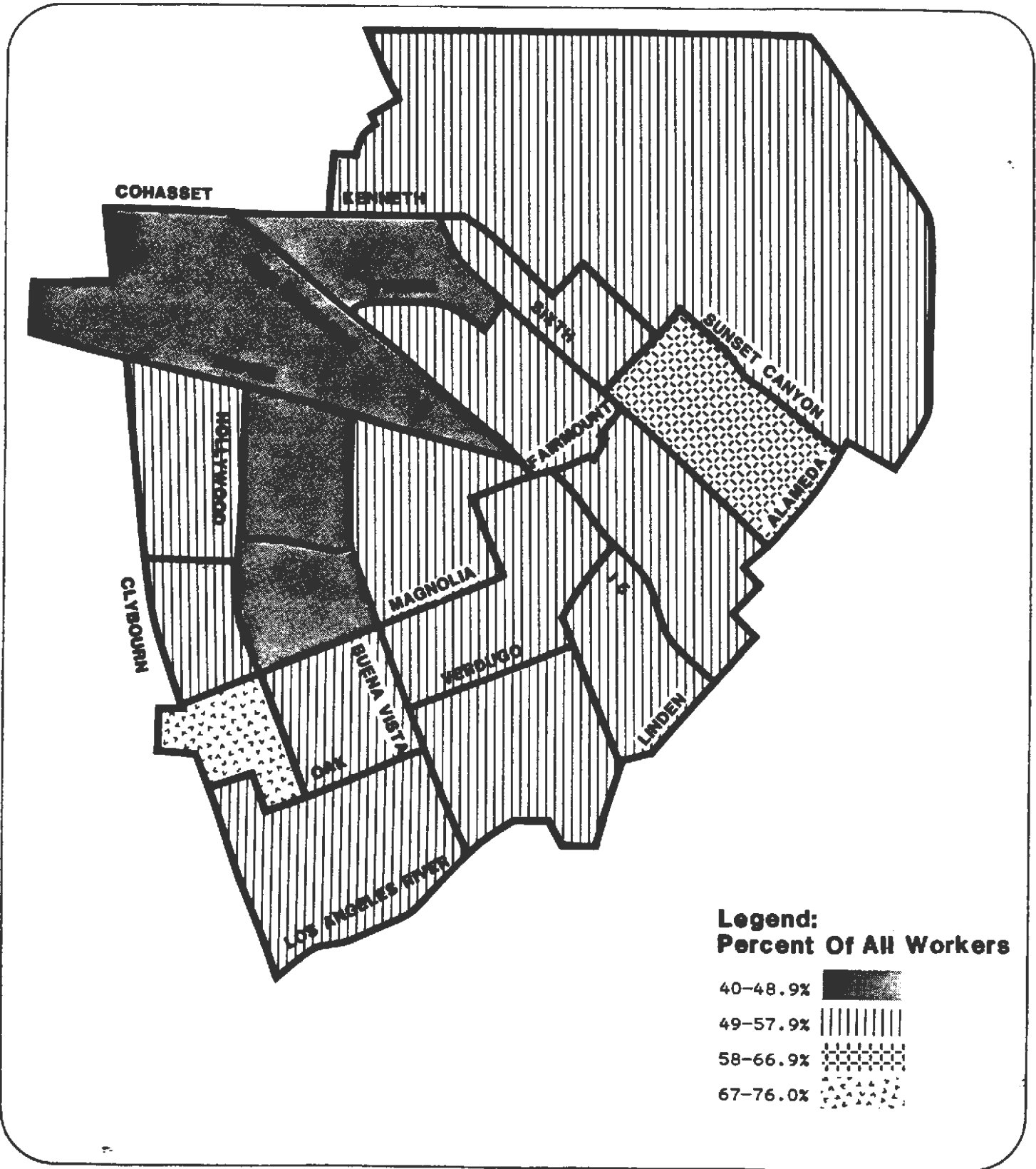
TABLE 10

PLACE OF WORK FOR BURBANK RESIDENTS

<u>Census¹ Tract</u>	<u>Total Workers</u>	<u>Outside Burbank</u>	<u>In Burbank</u>	<u>Not Reported</u>
3101	2488	55.1%	34.2%	10.6%
3102	3556	60.6	30.5	8.9
3103	1645	49.2	43.1	7.7
3104	1584	44.7	48.8	6.5
3105	1129	42.9	44.3	12.8
3106	2897	52.1	39.6	8.4
3107	4359	53.8	36.3	9.9
3108	2017	53.5	36.4	10.1
3109	3078	54.9	38.6	6.5
3110	1785	48.3	35.9	15.8
3111	1710	51.8	38.9	9.3
3112	1334	55.3	34.5	10.2
3113	1690	47.5	42.2	10.3
3114	1070	75.0	17.9	7.1
3115	2315	52.7	36.6	10.6
3116	3977	56.4	33.2	10.4
3117	2830	57.4	36.5	6.1
3118	2545	55.8	37.8	6.4
CITY TOTAL	42,009	54.0	36.7	9.2
COUNTY	3,471,764	51.9	38.3	9.8

¹ of residency





WORKERS WORKING OUTSIDE OF BURBANK

BARTON ASCHMAN ASSOCIATES, INC.

As indicated in Table 10, at least 54 percent of Burbank's employed residents travel to work places outside the city limits. Figure 12 shows that the largest proportion of residents travel to work outside Burbank from residents work will be presented in Section IIIC1, the high correlation between place of work and mode of travel can be quickly illustrated here. The highest percentage of transit riders occurred when Burbank's workers were destined to downtown Los Angeles. By census tract, between 8 and 20 percent of Burbank's workers who work in downtown Los Angeles reported that they used transit to get there. This is a much higher percentage of transit users than was reported by residents who traveled to work in other parts of the region. For these workers, transit accounted for only 1 to 7 percent of all trips.

Commuting Mode for Employees. According to the 1980 Census, 75,313 persons reported that they work in Burbank. Given the uncertainties associated with the sample of self-enumeration questionnaires, this figure is extremely close to the City's estimate of 71,000 jobs available. Only 3 percent of the persons employed in Burbank indicated that they used transit to get to work, which is slightly lower than the percentage of Burbank residents who reported that they use transit to get to work. Carpools and vanpools again account for a far larger share of commuter trips than did transit, accounting for approximately 18 percent of all work trips made to Burbank.

As can be seen from Table 11, the percentages of persons commuting to Burbank via transit did not exceed 5 percent except for two cases. One of these occurred in census tract 3101 (in the hillsides), where a small number, but 10 percent, of the employees reported that they used transit to get there. The second case, and a more statistically valid one, was reported for census tract 3113. (See Figure 6 for the location of Burbank's census tracts.)

TABLE 11

MEANS OF TRANSPORTATION BY PLACE OF EMPLOYMENT

Tract	Number of Workers ¹	(Percent)					Work at Home
		<u>Drive Alone</u>	<u>Carpool</u>	<u>Transit</u>	<u>Walk Only</u>	<u>Other Means</u>	
3101	206	76	14	10	-	-	-
3102	148	65	11	-	8	-	16
3103	171	61	25	-	9	-	5
3104	3249	75	20	1	1	3	-
3105	26244	68	24	4	1	3	-
3106	1118	69	14	5	7	2	3
3107	9573	72	18	4	4	3	-
3108	4184	71	17	3	5	4	-
3109	2024	80	10	3	3	3	1
3110	1826	79	12	4	1	4	1
3110.98	13	-	100	-	-	-	-
3111	1685	78	16	2	1	1	2
3112	868	72	15	2	4	4	3
3113	1496	65	19	8	5	1	2
3114	642	84	9	-	5	-	2
3115	897	79	10	-	6	1	5
3116	12703	82	12	2	3	2	-
3117	4889	73	16	2	5	2	2
3118	3390	71	19	1	5	4	-
Burbank	75313	73	18	3	3	3	1

Notes:

1 Employed in Burbank

The high correlation between household income or auto availability and transit usage can be gleaned directly from Tables 12, 13, and 14. Table 12 indicates that 1 percent of the persons employed in Burbank who used their own vehicle to travel to work did not own at least 1 vehicle. Table 13 indicates that, on the other hand, 27 percent of the persons employed in Burbank, who used transit to travel to work did not own a vehicle.

Since the number of households which include two workers is high, the importance which owning only 1 vehicle has on transit usage can also be noted from Tables 12 and 13. While only 27 percent of the persons employed in Burbank who used their own vehicle to travel to work owned only one or no vehicles, 66 percent of the persons employed in Burbank who used transit to travel to work owned only one or no vehicles. It is self evident that having one vehicle available for two workers will force one of them to use other means of transport.

The correlation between low incomes and transit usage is clearly noted in Table 14. While 37.1 percent of all persons employed in Burbank who used transit had household incomes of less than \$15,000, only 20.3 percent of all persons employed in Burbank had similar incomes.

Travel Time by Mode. It is not only the characteristics of the household or the tripmaker which will influence transit ridership, but also the level of transit service provided. Although a more detailed evaluation of transit service levels will be described in Section IIIB, there are additional Census data which need to be reported here in order to understand the modes of travel listed in Table 11. As noted from Table 15 and Figure 14, persons who commuted to Burbank via transit spent an average of 42 minutes getting here, while persons who drove to work spent an average of only 23 minutes. Not only did transit take almost twice as long as driving, but carpooling,

TABLE 12

PERCENT OF WORKERS¹ WHO USE CAR, VAN OR TRUCK
BY NUMBER OF VEHICLES AVAILABLE

Census Tract	Total Number of Workers	(Percent)			
		No Vehicle	1 Vehicle	2 Vehicles	3+ Vehicles
3101	185	—	40	26	34
3102	112	—	—	40	60
3103	148	—	28	49	24
3104	3055	1	25	39	36
3105	24070	1	27	42	31
3106	930	—	29	30	41
3107	8580	1	27	40	32
3108	3683	1	21	44	34
3109	1833	—	30	35	34
3110	1651	1	26	47	26
3110.98	13	—	—	100	—
3111	1594	2	27	36	36
3112	760	—	22	36	42
3113	1265	1	33	34	32
3114	568	2	21	44	33
3115	794	—	22	43	35
3116	11802	1	27	41	32
3117	4349	—	24	43	33
3118	3055	1	25	44	30
Burbank	68447	1	26	41	32

1 Employed in Burbank

TABLE 13

PERCENT OF WORKERS¹ WHO USE PUBLIC TRANSPORTATION

BY NUMBER OF VEHICLES AVAILABLE

(Percent)

<u>Census Tract</u>	<u>Total Number of Vehicles</u>	<u>No Vehicle</u>	<u>1 Vehicle</u>	<u>2 Vehicles</u>	<u>3+ Vehicles</u>
3101	21	—	100	00	00
3102	—	—	—	—	—
3103	—	—	—	—	—
3104	34	47	—	53	—
3105	1102	15	38	30	17
3106	50	—	20	48	32
3107	336	52	43	5	—
3108	133	26	42	32	—
3109	62	—	82	18	—
3110	74	66	34	—	—
3111	31	—	100	—	—
3112	19	—	—	100	—
3113	113	74	—	—	26
3114	—	—	—	—	—
3115	—	—	—	—	—
3116	226	34	44	20	2
3117	99	37	23	11	28
3118	44	14	86	—	—
Burbank	2384	27	39	22	12

¹ Employed in Burbank

TABLE 14

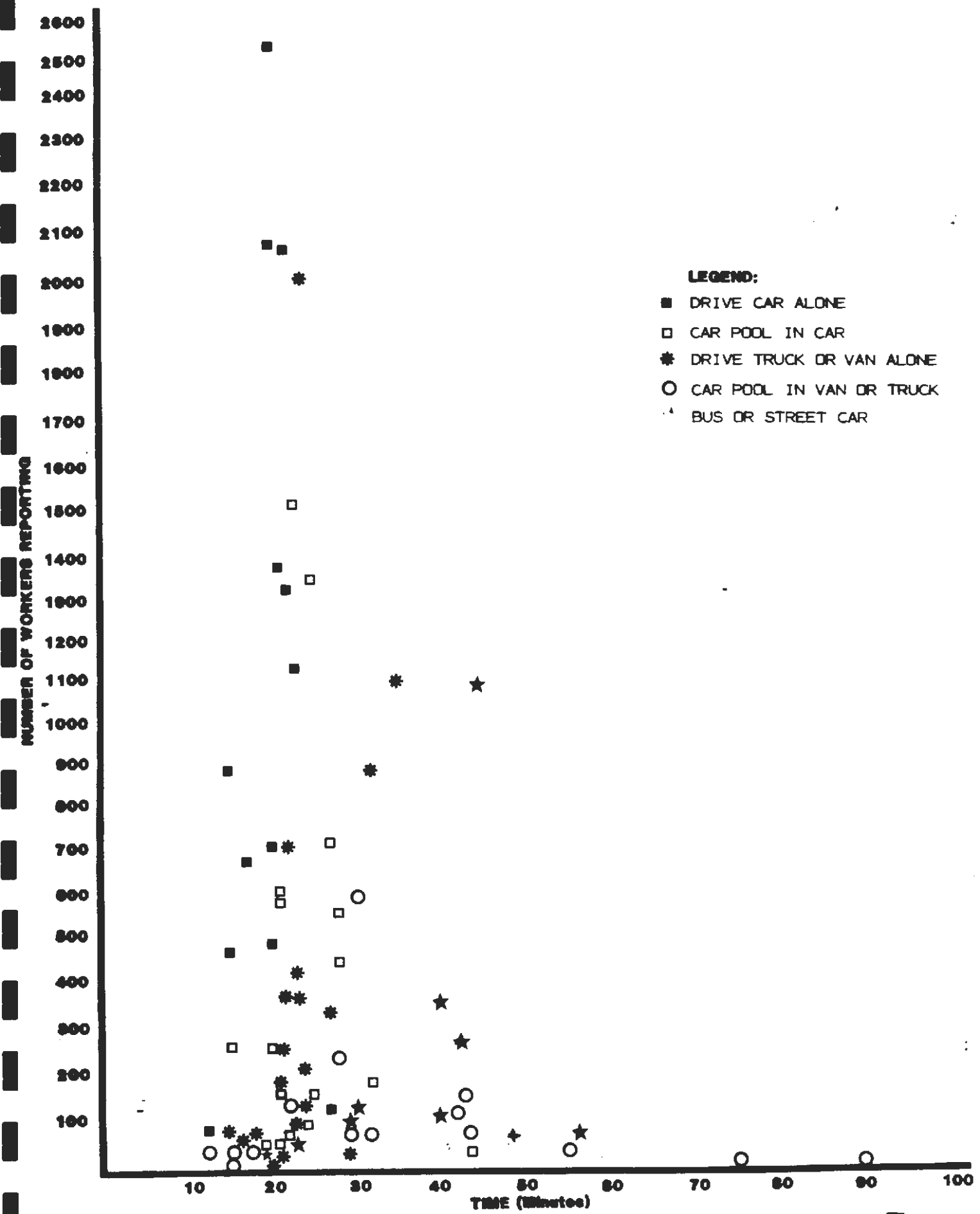
COMPARISON OF WORKERS¹ BY TRAVEL MODE AND INCOME

<u>Income Category</u>	<u>Percent of Workers Using Transit</u>	<u>Cummulative Percent of Workers Using Transit</u>	<u>Percent of Total Workers</u>	<u>Cummulative Percent of Total Workers</u>
Less than \$5,000	6.8	7.6	3.8	3.8
\$5,000 to \$7,999	8.8	16.1	3.3	7.1
\$8,000 to \$9,999	5.0	20.1	2.7	9.8
\$10,000 to \$14,999	5.4	37.1	10.5	20.3
\$15,000 to \$19,999	3.6	51.8	13.7	34.0
\$20,000 to \$24,999	3.9	67.4	13.5	47.5
\$25,000 to \$34,999	2.7	86.5	23.5	71.0
\$35,000 to \$49,999	1.9	96.3	18.9	89.9
\$50,000 to or more	.9	100.0	10.1	100.0

¹ Employed in Burbank.

TABLE 15
MEAN TRAVEL TIMES

	ALL WORKERS	DRIVE CAR ALONE	CAR POOL IN CAR	DRIVE TRUCK OR VAN ALONE	CARPOOL IN VAN OR TRUCK	BUS OR STREETCAR
TRACT 3101	33	27	44	29	0	60
TRACT 3102	20	11	0	20	75	0
TRACT 3103	18	19	19	21	0	0
TRACT 3104	24	22	28	23	42	18
TRACT 3105	28	26	33	24	30	45
TRACT 3106	20	20	25	18	0	23
TRACT 3107	21	21	23	22	28	40
TRACT 3108	20	20	21	23	23	30
TRACT 3109	23	21	32	21	13	48
TRACT 3110	23	22	21	24	18	56
TRACT 3110.98	90	0	0	0	90	0
TRACT 3111	23	23	20	24	12	56
TRACT 3112	18	15	22	21	29	60
TRACT 3113	18	15	15	23	55	40
TRACT 3114	19	20	21	13	15	0
TRACT 3115	17	17	24	16	0	0
TRACT 3116	24	24	25	32	43	42
TRACT 3117	22	21	27	22	31	29
TRACT 3118	21	20	21	27	44	41
AVERAGE		23	25	24	32	42



TRAVEL TIMES BY MODE

LARTON-ASCHMAN ASSOCIATES, INC.

which involves numerous and circuituous stops, took an average of 32 minutes compared to 10 or more minutes for transit.

Nearly all workers spent between 10 and 40 minutes traveling to work in Burbank, with those persons exceeding 30 minutes arriving to work via transit, carpools, or vanpools. Since approximately 3/4 of all employees arrive in Burbank by driving alone, it follows that most employees spent less than 30 minutes traveling to work in Burbank.

Commute Patterns by Mode. Although the percentage of Burbank's workers commuting by mass transit increased from 2.4 percent in 1970 to 3.9 percent in 1980, the latter figure is still about half the county-wide average. Why transit accounts for a very small percentage of work trips made to or from Burbank will become more evident in the next sections, although the high travel times indicated in Table 15 and Figure 14 provide major clues.

What is evident from the journey-to-work data collected by the 1980 Census is that auto availability or income, and the place of work are key factors in determining transit usage. Those persons with no vehicles available to the household, or 1 vehicle available for 2 or more workers in a household are far more likely to ride transit than those people with a vehicle available for every adult in the household. (Although the data used in this analysis were for persons working in Burbank, previous experience would guarantee that Burbank's employed residents would exhibit the same behavior).

Those persons that work in a mixed use activity center, particularly a large one such as downtown Los Angeles, used transit to a far greater degree than those persons traveling to other work destinations. Activity centers, with their higher parking charges and mixture of land uses within walking

proximity, will attract more transit trips than other destinations even if they were receiving equal transit service. However, since transit operators know that their routes serving activity centers will generally be more productive than those that don't, the contribution of automobile disincentives and improved transit service means that activity centers will typically attract 3 to 5 times as many transit riders as office or industrial parks.

B. ANALYSIS OF SERVICE

The current levels of transit service available to the residents and employees of Burbank were evaluated in order to determine if excessive travel times or other service deficiencies limited the attractiveness of transit. Separate evaluations were done of RTD, and the Burbank Transportation Service, because the former's local and express bus routes are intended by this regional operator to serve the general population, while the latter provides only demand/response service for elderly and handicapped persons traveling primarily within Burbank.

1. RTD

In order to evaluate the service provided by RTD, two kinds of evaluations were done. In the first, any limitations in the level of service available for the RTD routes directly serving Burbank were noted. In the second, travel time comparisons were made of potential auto and transit trips in order to identify excessive transit travel times.

The best headways and the most extensive terminal points served by the 14 RTD routes operating within Burbank were listed in Table 1. However, not all route segments are operated by RTD at all times of the day, so that

travel which can be accomplished at certain times of the day, particularly peak periods, cannot be accomplished at other times, particularly during the early morning or evening periods. As noted in detail for every route in Table 16, the following types of exceptions make using RTD's service even more difficult than just the wait times associates with regular service:

1. Long headways required to travel to or from San Fernando, North Hollywood, and Los Angeles early in the morning or during evenings.
2. Irregular evening service or no weekend service on certain routes to or from San Fernando, Los Angeles, or Glendale.
3. Only two inbound and two outbound trips provided per express bus route with no midday, evening, or weekend service available.
4. No direct service east of Glendale.

In order to identify excessive travel times on RTD buses caused by circuituous routes or long transfer wait times, the existing RTD timetables were used to calculate the total travel times required from the Golden Mall in Burbank to a variety of destinations. The Golden Mall, in particular the intersection of Olive and San Fernando, was used as the origin point in Burbank for the travel time analysis because this is the hub of transit service in the city, and would therefore be expected to provide the best level of transit service. However, as can be seen from Table 17, current RTD service allows a transit journey to be completed in less than 30 minutes to only about one third of all locations analyzed. Most of the locations

TABLE 16
RID SERVICE EXCEPTIONS IN BURBANK

Route Number	Type of Service	
92	Local	90 minute morning off peak headways from Glenoaks and Olive north to San Fernando no afternoon service from Glenoaks and Olive north to San Fernando irregular evening service to San Fernando, last arrival 8:13 p.m. and last departure 7:45 p.m. no Saturday, Sunday, or holiday service from Glenoaks and Olive north to San Fernando
93	Local	first weekday northbound San Fernando arrival 7:21 a.m. first weekday southbound San Fernando departure 6:55 a.m. last weekday northbound San Fernando arrival 7:32 p.m. last weekday southbound San Fernando departure 7:14 p.m. last Saturday northbound San Fernando departure 8:06 p.m. last Saturday southbound San Fernando departure 6:55 p.m. last Sunday northbound San Fernando arrival 7:55 p.m. last Sunday southbound San Fernando arrival 7:44 p.m.
410	Express	2 inbound and 2 outbound trips only first inbound arrival in downtown L.A. 7:27 a.m. last inbound arrival in downtown L.A. 7:56 a.m. first outbound departure from downtown L.A. 4:07 p.m. last outbound departure from downtown L.A. 4:37 p.m.
94	Local	weekday service between Truman Street and Mission Boulevard (San Fernando) and Sylmar provided only between 5:54 a.m. and 11:33 p.m. at 30, 40, or 60 minute headways weekend service provided only at 40 minute headways north of San Fernando
96	Local	30 minutes headways after 7:00 p.m. evenings 60 minute headways after 8:00 p.m. evenings
97	Local	no southbound service provided south of Burbank after 5:00 p.m. or northbound after 5:25 p.m. weekdays, and Sunday

TABLE 16

RID SERVICE EXCEPTIONS (continued)

Route Number	Type of Service	
154	Local	none
163	Local	no service east of Burbank Airport after 10:15 p.m. weekdays and Sundays
164	Local	none
165	Local	none
169	Local	none
183	Local	no service south of Golden Mall after 7:20 p.m.
212	Local	off peak and evening service in north of Hollywood available at 60 minute headways only
413	Express	2 inbound and 2 outbound trips only first inbound arrival in Downtown L.A. 7:26 a.m. last inbound arrival in Downtown L.A. 8:14 a.m. first outbound departure from Downtown L.A. 4:23 p.m. last outbound departure from Downtown L.A. 5:18 p.m.

listed can be reached only by riding one or two buses for at least 45 minutes.

The primary reason for the long bus travel times--the need to transfer and wait for the second bus--becomes apparent after comparing Table 17 with Table 18. Those locations which can be reached from the Golden Mall by using only one bus line, i.e., where direct service is provided, can be reached within 30 minutes. However, all of the locations which involve at least one transfer tend to take at least 10 to 15 minutes longer to reach because of the wait times between buses.

Although it is possible to mentally compare the RTD travel times listed in Table 17 with comparable auto travel times, Table 19 indicates how great the disparity is between transit and auto travel times. Even during peak periods when the lowest transit headways are being provided, and when highway travel speeds are the slowest, with few exceptions, transit travel times at least 50 percent greater than auto travel times were noted. During off peak periods, when the highest transit headways are provided, and when highway travel speeds are the fastest, transit travel times 2 to 3 times greater than auto travel times prevail. In fact, current transit travel times are competitive with auto travel only in the following cases:

1. When making trips within Burbank on a route directly connecting the destination and the Golden Mall.
2. When traveling to selected locations in Van Nuys and Sherman Oaks directly served by an RTD route.

An important point that needs to be stressed, however, is that these travel time comparisons do not include the time required to wait for the first bus,

TABLE 17

TRAVEL TIMES USING RTD SERVICE

All trips from/to Golden Mall in downtown Burbank. Times in minutes.

<u>Location</u>	<u>Peak Period Service</u>	<u>Off Peak Service</u>
Verdugo Hills Hospital	63	69
CBS Studios	66	68
Studio City	36	39
Cal State Northridge	70	72
Olive View Hospital	53	54
Valley Plaza	26	29
Van Nuys Airport	49	55
Mission Hills College	40	43
Rose Bowl	56	68
Cal Tech	62	65
Panorama City Center	49	52
Sherman Oaks Galleria	23	29
Burbank Airport	13	12
Burbank Community Hospital	5	5
Burbank Studios	11	11
Glendale Galleria	22	22
Jet Propulsion Laboratory	80	no service
Norton Simon Museum	52	53
Plaza Pasadena	61	71
St. Joseph's Hospital	11	12
Eagle Rock Plaza	40	43
Universal Studios	47	49
Downtown L.A.	30	29
Glendale Community Hospital	31	33
Glendale College	45	49
Los Angeles Valley College	25	28
Kaiser Hospital	30	35

TABLE 18

LOCATIONS SERVED DIRECTLY OR INDIRECTLY BY RID

Direct Trips

Golden Mall to/from:

- o Burbank Airport
- o Burbank Community Hospital
- o Burbank Studios
- o Downtown L.A.
- o Glendale Community Hospital
- o Glendale Galleria
- o Laurel Plaza
- o L.A. Valley College
- o Mission Hills College
- o Olive View Hospital
- o St. Joseph's Hospital
- o Sherman Oaks Fashion Square
- o Valley Plaza

Non-Direct or Transfer Trips

Golden Mall to/from:

- o Cal State Northridge
- o Cal Tech
- o CBS Studios
- o Eagle Rock Plaza
- o Glendale College
- o Jet Propulsion Laboratory
- o Kaiser Hospital
- o Norton Simon Museum
- o Panorama City Shopping Center
- o Plaza Pasadena
- o Rose Bowl
- o Studio City Park - n - Ride Lot
- o Universal Studios
- o Van Nuys Airport
- o Verdugo Hills Hospital

TABLE 19

COMPARISON OF TRANSIT AND AUTO TRAVEL TIMES

All from/to Golden Mall in Downtown Burbank. Times in minutes.

<u>Location</u>	Peak Periods			Off Peak Periods		
	Transit	Auto	Transit/ Auto	Transit	Auto	Transit/ Auto
Verdugo Hills Hospital	63	25	2.52	69	20	3.45
CBS Studios	66	45	1.47	68	30	2.27
Studio City Park	36	20	1.80	39	15	2.60
Cal State Northridge	70	30	2.33	72	20	3.60
Olive View Hospital	53	25	2.12	54	15	3.60
Valley Plaza/Laurel Plaza	26	20	1.30	29	15	1.93
Van Nuys Airport	49	30	1.63	55	20	2.75
Mission Hills College	40	25	1.60	43	15	2.87
Rose Bowl	56	25	2.24	68	15	4.53
Cal Tech	62	35	1.77	65	25	2.60
Panorama City Center	49	60	1.63	52	20	2.60
Sherman Oaks Galleria	23	20	1.15	29	15	1.93
Burbank Airport	13	10	1.30	12	8	1.50
Burbank Community Hospital	5	4	1.25	5	4	1.25
Burbank Studios	11	10	1.10	11	9	1.22
Glendale Galleria	22	15	1.47	22	10	2.20
Jet Propulsion Laboratory	80	30	2.67	no service	20	----
Norton Simon Museum	52	30	1.73	53	20	2.65
Plaza Pasadena	61	35	1.74	71	25	2.84
St. Joseph's Hospital	11	10	1.10	12	9	1.33
Eagle Rock Plaza	40	20	2.00	43	15	2.87
Universal Studios	47	25	1.88	49	15	3.27
Downtown Los Angeles	30	20	1.50	29	15	1.93
Glendale Community Hospital	31	20	1.55	33	15	2.20
Glendale College	45	25	1.80	49	20	2.45
Los Angeles Valley College	25	25	1.00	28	20	1.40
Kaiser Hospital	30	25	1.20	35	20	1.75

but assume a simultaneous arrival of the potential passenger and the bus at the bus stop. Adding 5 to 10 minutes for walking or wait times would mean that a short trip within Burbank would take 20 minutes, and the ratio between transit and auto travel times would increase to nearly 2.

One additional important point is that the actual transfer time between buses is often longer than the transfer times used in this evaluation of RTD's service. In the calculation of time needed to travel by transit from the Golden Mall to various locations, an "ideal" bus schedule was assumed. First, the bus lines from the mall to various locations were chosen because they required the least amount of travel time. Second, the average wait time caused by buses arriving or departing off schedule (early or late) wasn't considered during the analysis.

2. BURBANK TRANSPORTATION SERVICE

There are two major deficiencies which potential users of Burbank's demand response service for elderly and handicapped persons encounter. The first is that trips must be reserved two working days in advance. This requirement may not cause a hardship for those using the service on a regular basis, but it certainly reduces the potential user's flexibility to make discretionary trips, even for medical reasons. Second, trips outside of Burbank are made only to hospitals and medical centers in North Hollywood and Glendale, and are scheduled for Mondays and Tuesdays. Again, the user's flexibility of selecting a doctor or dentist outside Burbank is reduced, as is the ability to use the service for non-medical trips outside Burbank. Since the aim of the service is to operate within Burbank almost exclusively, this is an intentional policy deficiency, and not an operational one.

C. SURVEYS OF HOUSEHOLDS AND TRANSIT RIDERS

Two original surveys and a previous survey were used to indicate specific requirements for transit improvements in Burbank. First, a random sample of Burbank households was included in a telephone survey in order to determine travel patterns and attitudes exhibited by the general population. Second, riders of Burbank's Transportation Service were surveyed to determine their travel characteristics and recommendations for service improvements. Third, an earlier telephone survey of RTD was used to describe the attitudes of current patrons about RTD's service. The discussions of these data sources follow in the order in which they were listed above.

1. SURVEY OF BURBANK HOUSEHOLDS

During October 1984, households in Burbank were telephoned in order to determine their current level of transit usage, reasons for using current travel modes, recommendations for possible transit improvements, and projected usage rates if these service improvements were implemented. The households were selected using the random dialing technique to generate a sample of telephone numbers for the city's prefixes. Four-hundred interviews were completed in order to achieve a precision of $\pm 5\%$ at the 95% confidence level.

The characteristics of the 400 households which did complete the questionnaire were compared to Census of Population data in order to determine possible bias. After comparing household income, vehicles available per household, and mode of travel to work for the households who completed the telephone survey against all households in Burbank, no discernible bias was noted. The questionnaire which was used for the household interviews has been included as Appendix A.

Of the heads of household who answered the telephone, 7.7 percent responded that they had used transit in the previous week. As noted in Table 20, the majority of persons who rode transit did so infrequently, less than 5 days a week.

TABLE 20

HOW OFTEN RIDE TRANSIT

<u>Value</u>	<u>Frequency</u>	<u>Cumulative Frequency</u>	<u>Percent</u>	<u>Cumulative Percent</u>
Not a Rider	369	369	92.2	92.2
Every day	6	375	1.5	93.7
5 Days a Week	6	381	1.5	95.2
2 or 3 Days a Week	11	392	2.7	98.0
1 Day a Week	3	395	0.7	98.7
First Time	4	399	1.0	99.7
No Response	1	400	0.2	100.0
Total	400	400	100.0	

Although the majority of transit riders used the service less than five days a week, work trips accounted for the primary trip purpose, while shopping trips and trips to doctors or dentists were the second and third most frequently noted trip purposes. As can be noted from Table 21, work trips represented the main trip purpose for those using transit, while shopping was the secondary trip purpose.

TABLE 21

MAIN TRIP PURPOSE FOR TRANSIT TRIP

<u>Value</u>	<u>Frequency</u>	<u>Total Population</u>		<u>Rode Transit</u>		
		<u>Cumulative Frequency</u>	<u>Percent</u>	<u>Cumulative Percent</u>	<u>Percent</u>	<u>Cumulative Percent</u>
No Transit Trip	369	369	92.2	92.2	---	---
Work	11	380	2.7	95.0	35.5	35.5
Shopping	5	385	1.2	96.2	16.1	51.6
Recreation	1	386	0.2	96.5	3.2	54.8
Doctor/ Dentist	9	395	2.2	98.7	29.0	83.8
Personal	5	400	1.2	100.0	16.2	100.0
TOTAL	400	400	100.0		100.00	

TABLE 21 (Continued)

SECONDARY TRIP PURPOSE FOR TRANSIT TRIP

<u>Value</u>	<u>Total Population</u>			<u>Rode Transit</u>		
	<u>Frequency</u>	<u>Cumulative Frequency</u>	<u>Percent</u>	<u>Cumulative Percent</u>	<u>Percent</u>	<u>Cumulative Percent</u>
No Transit Trip	369	369	92.2	92.2	---	---
Work	4	373	1.0	93.2	12.9	12.9
Shopping	10	383	2.5	95.8	32.2	45.1
Recreation	1	384	0.2	96.0	3.2	48.3
Doctor/ Dentist	3	387	0.7	96.8	9.7	58.0
Personal	2	389	0.5	97.2	16.2	100.0
No Other	11	400	2.7	100.0	6.5	64.5
TOTAL	400	400	100.0		35.5	100.0
					100.0	

A relatively high 23.1 percent of the heads of household indicated that they had used transit during the last year, while 12.7 percent indicated that they had used transit in the last month. On the other hand, as noted in Table 22, 25.5 percent of the respondents indicated that they had never used transit, while another 42.0 percent indicated that they had last used transit over five years ago. Somewhat surprisingly, more people had used transit than a taxi during the last week or month.

TABLE 22

LAST TIME USED TRANSIT

<u>Value</u>	<u>Frequency</u>	<u>Cumulative Frequency</u>	<u>Percent</u>	<u>Cumulative Percent</u>
No Response	6	6	1.5	1.5
Last Month	51	57	12.7	14.2
Last Year	42	99	10.5	24.7
About 2 Years Ago	31	130	7.7	32.5
Over 5 Years Ago	168	298	42.0	74.5
Never	102	400	25.5	100.0
TOTAL	400	400	100.0	

TABLE 22 (Continued)

LAST TAXI TRIP

<u>Value</u>	<u>Frequency</u>	<u>Cumulative Frequency</u>	<u>Percent</u>	<u>Cumulative Percent</u>
Last Week	5	5	1.2	1.2
Last Month	20	25	5.0	6.2
Last Year	57	82	14.2	20.5
2 Years Ago	43	125	10.7	31.2
5 Years Ago	167	292	41.7	73.0
Never	108	400	27.0	100.0
TOTAL	400	400	100.0	

Of those persons who did not ride transit the previous week, the largest percentage - 45.1 - indicated that they needed their car during the day. As seen in Table 23, another 23.9 percent considered transit to be inconvenient, and 13.9 had never even considered the use of transit. (As shall be seen later in the analysis, cross tabulating why people didn't ride transit against various service factors provided more specific clues about attitudes.)

When asked to rank the importance of six specific factors in influencing their mode of travel, reliability was given the highest priority, time for waiting or transferring came in second, total trip time was third, while control of the travel environment was fourth. Free or cheap parking was considered important by a smaller percentage of respondents, and travel cost or fare was considered the least important. The response rates to this question are listed in Table 24.

Approximately thirty-six percent of all heads of household indicated that there was no trip purpose for which they would consider using transit.

Since 7.7 percent of all respondents indicated that they already used transit, those who indicated that they would strongly consider switching to transit represent 56.1 percent of the adult population of Burbank. As indicated in Table 25, the majority of these persons would consider using transit for work, shopping, or recreation trips, in that order.

TABLE 23

MOST IMPORTANT REASON WHY DON'T RIDE TRANSIT

<u>Value</u>	<u>Total Population</u>		<u>Don't Ride Transit</u>	
	<u>Frequency</u>	<u>Percent</u>	<u>Percent</u>	
Transit Rider	32	8.0	—	
Too Much Time	33	8.2	8.9	
Inconvenient	88	22.0	23.9	
Uncomfortable	2	0.5	.1	
Unreliable	13	3.2	3.5	
Unsafe	7	1.7	1.9	
Not Considered It	51	12.7	13.9	
Need Car	166	41.5	45.1	
Carpool/Vanpool	8	2.0	2.2	
TOTAL	400	100.0	100.0	

TABLE 24

IMPORTANCE OF FACTORS IN SELECTING MODE OF TRAVEL

FACTOR: TOTAL TRIP TIME

<u>Value</u>	<u>Frequency</u>	<u>Cumulative Frequency</u>	<u>Percent</u>	<u>Cumulative Percent</u>
Very Important	189	189	47.2	47.2
Important	157	346	39.2	86.5
Not Important	54	400	13.5	100.0
TOTAL	400	400	100.0	

FACTOR: TIME FOR WAITING OR TRANSFERING

<u>Value</u>	<u>Frequency</u>	<u>Cumulative Frequency</u>	<u>Percent</u>	<u>Cumulative Percent</u>
Very Important	224	224	56.0	56.0
Important	142	366	35.5	91.5
Not Important	34	400	8.5	100.0

FACTOR: COST OR FARE

<u>Value</u>	<u>Cumulative Frequency</u>	<u>Cumulative Frequency</u>	<u>Cumulative Percent</u>	<u>Percent</u>
Very Important	88	88	22.0	22.0
Important	164	252	41.0	63.0
Not Important	148	400	37.0	100.0
TOTAL	400	400	100.0	

TABLE 24 (Continued)

FACTOR: RELIABILITY

<u>Value</u>	<u>Frequency</u>	<u>Cumulative Frequency</u>	<u>Percent</u>	<u>Cumulative Percent</u>
Very Important	252	252	63.0	63.0
Important	131	383	32.8	95.8
Not Important	17	400	4.2	100.0
TOTAL	400	400	100.0	

FACTOR: CONTROL OF TRAVEL ENVIRONMENT

<u>Value</u>	<u>Frequency</u>	<u>Cumulative Frequency</u>	<u>Percent</u>	<u>Cumulative Percent</u>
Very Important	112	112	28.0	28.0
Important	221	333	55.2	83.3
Not Important	67	400	16.7	100.0
TOTAL	400	400	100.0	

FACTOR: FREE OR CHEAP PARKING

<u>Value</u>	<u>Frequency</u>	<u>Cumulative Frequency</u>	<u>Percent</u>	<u>Cumulative Percent</u>
Very Important	120	120	30.0	30.0
Important	176	296	44.0	74.0
Not Important	104	400	26.0	100.0
TOTAL	400	400	100.0	

TABLE 25

WOULD STRONGLY CONSIDER TRANSIT

<u>Value</u>	<u>Frequency</u>	<u>Cumulative Frequency</u>	<u>Percent</u>	<u>Cumulative Percent</u>
No Response	1	1	0.2	0.2
Work or Business	90	91	22.5	22.7
Shopping	51	142	12.7	35.5
Recreation	40	182	10.0	45.5
School or College	11	193	2.7	48.2
Doctor/Dentist	35	228	8.7	57.0
Personal Business	27	255	6.7	63.7
No Trip	145	400	36.2	100.0
TOTAL	400	400	100.0	

Actually causing a shift in travel modes is not likely to be easy, however, as noted from the responses listed in Table 26. Of those who would potentially ride transit, approximately 94 percent said that providing service within 2 blocks of their home or destination, and not requiring transfers was important to them. Approximately 91 percent said that providing a transit trip lasting no more than twice as long as driving, or having to wait less than 10 minutes for the bus to arrive was important to them if they were to switch to transit.

TABLE 26

IMPORTANCE OF FACTOR IN SWITCHING TO TRANSIT

FACTOR: WAITING LESS THAN 10 MINUTES FOR FIRST BUS

<u>Value</u>	<u>Frequency</u>	<u>Total Population</u>		<u>Would Ride Transit</u>		
		<u>Cumulative Frequency</u>	<u>Percent</u>	<u>Cumulative Percent</u>	<u>Percent</u>	<u>Cumulative Percent</u>
Would Not						
Ride Transit	144	144	36.0	36.0	—	—
Very	140	284	35.0	71.0	54.7	54.7
Important						
Important	93	377	23.2	94.2	36.3	91.0
Not	23	400	5.7	100.0	9.0	100.0
Important						
TOTAL	400	400	100.0		100.0	

TABLE 26 (Continued)

FACTOR: NO TRANSFERING

<u>Value</u>	<u>Frequency</u>	<u>Total Population</u>		<u>Would Ride Transit</u>		
		<u>Cumulative Frequency</u>	<u>Percent</u>	<u>Cumulative Percent</u>	<u>Percent</u>	<u>Cumulative Percent</u>
Would Not						
Ride Transit	144	144	36.0	36.0	----	----
Very	165	309	41.2	77.2	64.4	64.4
Important						
Important	87	383	21.7	95.8	34.0	93.4
Not	17	400	4.2	100.0	6.6	100.0
Important						
TOTAL	400	400	100.0		100.0	

FACTOR: SERVICE WITHIN 2 BLOCKS OF HOME

<u>Value</u>	<u>Frequency</u>	<u>Total Population</u>		<u>Would Ride Transit</u>		
		<u>Cumulative Frequency</u>	<u>Percent</u>	<u>Cumulative Percent</u>	<u>Percent</u>	<u>Cumulative Percent</u>
Would Not						
Ride Transit	144	144	36.0	36.0	---	---
Very	152	296	38.0	74.0	59.4	59.4
Important						
Important	87	383	21.7	95.85	30.0	94.4
Not	14	400	3.5	100.0	5.6	100.0
Important						
TOTAL	400	400	100.0		100.0	

TABLE 26 (Continued)

FACTOR: SERVICE WITHIN 2 BLOCKS OF DESTINATION

<u>Value</u>	<u>Frequency</u>	<u>Total Population</u>		<u>Would Ride Transit</u>		
		<u>Frequency</u>	<u>Percent</u>	<u>Cumulative Percent</u>	<u>Percent</u>	<u>Cumulative Percent</u>
Would Not						
Ride Transit	144	144	36.0	36.0	---	---
Very	152	296	38.0	74.0	59.4	59.4
Important						
Important	88	384	22.0	96.0	34.4	93.8
Not	16	400	4.0	100.0	6.2	100.0
Important						
TOTAL	400	400	100.0		100.0	

FACTOR: TOTAL TRIP TIME NO MORE THAN TWICE AS LONG AS DRIVING

<u>Value</u>	<u>Frequency</u>	<u>Total Population</u>		<u>Would Ride Transit</u>		
		<u>Frequency</u>	<u>Percent</u>	<u>Cumulative Percent</u>	<u>Percent</u>	<u>Cumulative Percent</u>
Would Not						
Ride Transit	144	144	36.0	36.0	---	---
Very	160	304	40.0	76.0	62.5	62.5
Important						
Important	75	379	18.7	94.8	29.3	91.8
Not	21	400	5.2	100.0	8.2	100.0
Important						
TOTAL	400	400	100.0		100.0	

If the service improvements listed in Table 26 were actually provided, then 48 percent of those who said they would strongly consider transit would ride only if their own vehicle was not available for making the trip. Since 36.5 percent of the respondents indicated that they would not ride transit, another 7.7 percent already ride transit, this last response means that the number of potential transit riders has been reduced by another 26.8 percent of the total population. If, as shown in Table 27, the 4.8 percent of those who said they would ride transit only once as a novelty or new experience were also subtracted from the total population, then only 24.2 of the total population would be considered as potential transit riders if major service improvements were made. Of these persons, roughly one third said they would ride transit frequently to school or work, while two thirds said they would ride transit frequently for other trips.

TABLE 27

REACTION TO TRANSIT SERVICE IMPROVEMENTS

<u>Value</u>	<u>Frequency</u>	<u>Total Population</u>		<u>Would Ride Transit</u>		
		<u>Cumulative Frequency</u>	<u>Percent</u>	<u>Cumulative Percent</u>	<u>Percent</u>	<u>Cumulative Percent</u>
Would Not Ride	146	146	36.5	36.5	---	---
Ride to School/Work	48	194	12.0	48.5	18.9	18.9
Ride for Other Trips	72	266	18.0	66.5	28.3	47.2
Ride Only if Car Not Available	122	388	30.5	97.0	48.0	95.2
Ride as Novelty	12	400	3.0	100.0	4.8	100.0
TOTAL	400	400	100.0		100.0	

In order to determine the total market shares for transit, not only among heads of households, but also including other members of the household, those interviewed were asked if other members of their household rode transit last week. According to the responses, 7.7 percent of the households reported that one of their members had used transit in the last week. As noted in Table 28, 52.9 percent of the other persons who rode transit did so at least five days a week. Half of those other members of the household who rode transit used it to travel to work.

TABLE 28

ANY OTHER TRANSIT RIDERS IN HOUSEHOLD

<u>Value</u>	<u>Frequency</u>	<u>Cumulative Frequency</u>	<u>Percent</u>	<u>Cumulative Percent</u>
No Response	11	11	2.7	2.7
Yes	28	39	7.0	9.8
No	361	400	90.2	100.0
TOTAL	400	400	100.0	

HOW OFTEN DID OTHER PERSON RIDE TRANSIT

<u>Value</u>	<u>Frequency</u>	<u>Cumulative Frequency</u>	<u>Percent</u>	<u>Cumulative Percent</u>
No Transit Trip	372	372	93.0	93.0
Every Day	4	376	1.0	94.0
5 Days a Week	11	387	2.7	96.8
2 or 3 Days a Week	4	391	1.0	97.8
1 Day a Week	5	396	1.2	99.0
First time	3	399	0.7	99.7
No Response	1	400	0.2	100.0
TOTAL	400	400	100.0	

TABLE 28 (Continued)

MAIN TRIP PURPOSE FOR OTHER TRANSIT RIDER

<u>Value</u>	<u>Frequency</u>	<u>Cumulative Frequency</u>	<u>Percent</u>	<u>Cumulative Percent</u>
No Transit Trip	372	372	93.0	93.0
Work	14	386	3.5	96.5
Shopping	2	388	0.5	97.0
Recreation	1	389	0.2	97.2
School	6	395	1.5	98.7
Doctor/Dentist	2	397	0.5	99.2
Personal Business	3	400	0.7	100.0
TOTAL	400	400	100.0	

HOW MANY OTHERS IN HOUSEHOLD RODE TRANSIT

<u>Value</u>	<u>Frequency</u>	<u>Cumulative Frequency</u>	<u>Percent</u>	<u>Cumulative Percent</u>
No Transit Ride	372	372	93.0	93.0
One	23	395	5.7	98.7
Two	4	399	1.0	99.7
Five or More	1	400	0.2	100.0
TOTAL	400	400	100.0	

The respondents were then asked about their mode of travel to work. When they were asked their employment status, 62.7 percent indicated that they worked full-time, another 6.7 percent said they worked part-time, while the remaining 31 percent said they were not presently employed.

The modes of travel reported from the telephone survey for the journey to work, which are listed in Table 29, are very similar to those reported by the 1980 census. Nearly identical percentages of persons indicated that they rode transit to work -- 3.6 percent. A higher percentage of respondents indicated that they drove to work (88.3 percent vs. 74.3), and a lower percentage indicated that they carpooled to work (4.7 percent vs. 14.4). However, in both cases, 92 percent of the respondents indicated that they drove to work, so that only formal carpools may have been considered in the telephone survey.

TABLE 29

MODE OF TRAVEL TO WORK

Value	Frequency	Total Population		Are Employed		Cumulative Percent
		Cumulative Frequency	Percent	Cumulative Percent	Percent	
Don't Work/ No Res- ponse	126	126	31.5	31.5	—	—
Drive Alone	242	368	60.5	92.0	88.3	88.3
Carpool	13	381	3.2	95.2	4.7	93.0
Bus	10	391	2.5	97.8	3.6	96.6
Walk	7	398	1.7	99.5	2.6	99.2
Bicycle, etc.	1	399	0.2	99.7	.4	99.6
Work at Home	1	400	0.2	100.0	.4	100.0
TOTAL	400	400	100.0		100.0	

As was the case with the census journey-to-work data, 36.2 percent of Burbank's employed residents indicated that they worked in Burbank. The next highest percentage, 10.6 percent, reported that they worked in downtown Los Angeles, while 10.3 percent reported that they worked in Glendale. As noted in Table 30, lower but still significant, percentages of respondents indicated that they work in North Hollywood, West Los Angeles, or travel all over. Other individual destinations accounted for less than 5 percent of all workers.

TABLE 30

PLACE OF WORK

<u>Value</u>	<u>Total Population</u>		<u>Employed</u>
	<u>Frequency</u>	<u>Percent</u>	<u>Percent</u>
Don't Work/No Response	127	31.7	----
LA/CBD	29	7.2	10.6
Burbank	99	24.7	36.3
Van Nuys	8	2.0	2.9
Beverly Hills	2	0.5	.7
Travel all over	17	4.2	6.2
Hollywood	10	2.5	3.7
West Los Angeles	14	3.5	5.1
Los Angeles	4	1.0	1.5
North Hollywood	21	5.2	7.7
W. San Fernando Valley	8	2.0	2.9
South L. A. County	12	3.0	4.4
Glendale	28	7.0	10.3
Pasadena	8	2.0	2.9
E. San Fernando Valley	6	1.5	2.2
San Gabriel Valley	4	1.0	1.5
Other	3	0.7	1.1
TOTAL	400	100.0	100.0

Attendance at a school or college and the mode of travel used to get there were the next subjects of the interview. Almost 77 percent of the

respondents indicated that no one in their household was attending a school, college, or university, while 13 percent indicated that someone was attending elementary through high school, and another 10 percent indicated that someone in the household was attending college or university.

As indicated in Table 31, only 3.4 percent of those attending any kind of school rode transit to get there. Since those attending elementary through high schools are included in these figures, it is not surprising that far greater percentages of walk and carpool trips were reported. Furthermore, it is equally apparent why Burbank was reported to be the predominant location of the school attended, with the remainder scattered throughout colleges and universities located west of Burbank.

TABLE 31

TRAVEL MODE TO SCHOOL

<u>Value</u>	<u>Total Population</u>		<u>Attend School</u>
	<u>Frequency</u>	<u>Percent</u>	<u>Percent</u>
No School/No Response	311	77.7	---
Drive Alone	55	13.7	61.7
Carpool	13	3.2	14.6
Bus	3	0.7	3.4
Walk	17	4.2	19.1
Bicycle, etc.	1	0.2	1.1
TOTAL	400	100.0	100.0

TABLE 31 (Continued)

LOCATION OF SCHOOL

Value	Frequency	Cumulative Frequency	Percent	Cumulative Percent
No School/No Response	311	311	77.7	77.7
Valley College	10	321	2.5	80.2
Burbank	50	371	12.5	92.7
West Los Angeles	1	372	0.2	93.0
Los Angeles	1	373	0.2	93.2
L. A. City College	1	374	0.2	93.5
Glendale	7	381	1.7	95.2
Northridge	9	390	2.2	97.5
Pomona	1	391	0.2	97.8
Other	10	400	2.1	100.0
TOTAL	400	400	100.0	

The next section of the interview contained the questions which asked the respondents to list the specific transportation or transit problems which they thought the City of Burbank should address.

Of the 400 people who answered questions 23 and 24 of the telephone survey, 24 percent could not identify any transportation problems (general or transit-specific) affecting Burbank. These respondents either felt

unqualified to answer because they were unfamiliar with local transportation issues, or believed that Burbank has no significant transportation problems.

The responses of the 316 participants who were able to identify transportation problems have been grouped into the following categories:

1. Additional bus service
2. Efficient operation of the existing bus system
3. Alternative transit modes
4. Road improvements
5. Other

Specific problems included in each of these categories are summarized below.

ADDITIONAL BUS SERVICE. The most frequently mentioned transit problems are those that would be mitigated through expanded bus service. These problems include infrequent service on existing lines, local destinations or thoroughfares in need of service, inadequate express service to destinations outside of Burbank, and inadequate evening service.

Excessive waiting at bus stops was mentioned by 64 percent of the respondents able to identify transportation problems. Most felt that headways should be no more than 10 to 15 minutes long. Approximately 2 percent of the respondents, but over 25 percent of the transit riders, made specific reference to long waits while transferring.

Service to more destinations or along more thoroughfares was mentioned by 44 percent of the respondents. Specific destinations identified as needing more service include downtown Burbank (21 percent), and local schools, Burbank Airport and senior citizen centers (all mentioned by less than 1 percent). Too many transfers needed to reach their destinations were mentioned by 2 percent of all respondents, but over 20 percent of the transit riders. The following local thoroughfares were identified as needing new or additional service: Keystone Street, Burbank Boulevard and Alameda Street (each of these was indicated once). Two respondents expressed a need for more crosstown lines to connect with existing north-south service.

Twelve percent of those who responded mentioned a need for improved express service to destinations outside of Burbank. The destinations cited include: downtown Los Angeles (9 mentions), Hollywood (5 mentions), shopping malls (4 mentions), the beaches (3 mentions), Tarzana via Ventura Boulevard (1 mention), Chatsworth without first going to the airport (1 mention), north San Fernando Valley (1 mention), tourist attractions (1 mention), and sports arenas (1 mention).

Over 16 percent of the respondents (33 cases) complained of long walks to and from bus stops. Sixteen respondents felt that bus stops were too far from their homes, 9 felt that bus stops were too far apart along the bus line, 7 felt that bus stops are located too far from their non-home destinations, and 1 respondent felt that there should be more bus stops in the Burbank Hills.

Over 2 percent of the respondents expressed a need for more late night service (8 cases). One mention was made of the need for RTD Line 97 to expand its evening service.

MORE EFFECTIVE OPERATION OF EXISTING BUS SERVICE. The most commonly mentioned problems associated with the operation of the existing bus system included high fares, unreliable service, poor driver conduct, lack of passenger safety, lack of passenger comfort, and the unavailability of scheduling and routing information.

Of the 316 respondents who were able to cite specific transit problems, 22 percent felt that bus fares are too high. However, almost one half of these persons believed the fares to be too high for others, particularly senior citizens or low income residents.

The unreliability of the existing service was also frequently mentioned. Almost 9 percent of the respondents felt that buses are too frequently off-schedule. Two respondents complained that bus drivers purposely miss stops, and 2 others felt that, when buses break down, replacements are not sent soon enough.

Almost 6 percent of all respondents felt that driver conduct could be improved. Of these respondents, 13 felt that drivers should be more courteous, 4 felt that drivers should drive more carefully, and 1 felt that drivers should be prohibited from going on strike.

Another six percent of the respondents complained about the unavailability of scheduling and routing information. Specific suggestions to make this information more available include posting of schedules and route maps at bus stops (1 mention), and more legible schedules (1 mention).

Safety on buses or at bus stops was a concern of nearly 5 percent of all respondents. Suggestions to improve safety included security guards on

buses (3 mentions), better lit bus stops(3 mentions), seat belts on buses (1 mention), metal detectors on buses (1 mention), and emergency telephones at bus stops (1 mention).

The comfort and cleanliness of buses and bus stops was a problem mentioned by less than 2 percent of all respondents. Four mentioned that buses should be cleaner, 1 felt that there should be more support poles for standees, and 1 felt that bus stops should be covered. Other complaints about existing bus service include annoying diesel exhaust from buses (6 mentions), and insufficient wheelchair access to buses (2 mentions).

ALTERNATIVE TRANSIT MODES. Twelve percent of the respondents expressed a need for alternatives to the existing bus system. Mentioned by 21 respondents, rail transit (either subway, monorail, light rail or people mover) was the most commonly suggested transit alternative. Also suggested were bike lanes (2 mentions), and a demand responsive minibus system (8 mentions).

ROAD IMPROVEMENTS. Perhaps because most of the previous questions had been about transit, only 3.2 percent of the respondents mentioned the condition of the roads as a transportation problem in Burbank. Specific problems mentioned included potholes (4 mentions), roadside litter (4 mentions), a need to restripe streets and repaint curbs (1 mention), and a need for freeway off-ramps to attract more people (especially shoppers) to Burbank (1 mention).

OTHER. Problems that were mentioned, but do not fall into the above categories are as follows:

- o Gasoline costs are too high (1 mention).
- o Response times for taxis are too slow (1 mention).
- o Traffic congestion is bad because the City has not imposed sufficient building height limitations (1 mention).

2. SURVEY OF BURBANK TRANSPORTATION SERVICE'S RIDERS

All persons using Burbank's demand responsive service for the elderly and handicapped were asked to complete the brief questionnaire included in Appendix B. The questionnaires were distributed by the drivers to all passengers boarding on a Friday, Sunday, and Tuesday in October, 1984. The 347 responses which were collected thus provide information from all trips made during those representative days.

After discounting home, which obviously would be the predominant origin or destination for these elderly or handicapped riders, Table 32 indicates that trips for medical reasons or to nutrition centers accounted for over 42 percent of all trips made. These trip types, even individually, account for more trips than the next highest trip categories -- shopping, recreation, or visits to social service centers.

The majority of the users of Burbank's Transportation Service, 56.8 percent, ride four or fewer days per week. As shown in Table 30, only 7.2 percent of the riders do so every day of the week. Approximately 94 percent of the trips ended or began in Burbank.

TABLE 32

TRIP ORIGINS OF BURBANK'S RIDERS

Value	Frequency	Cumulative Frequency	Percent	Cumulative Percent
No Response	4	4	1.2	1.2
Home	221	225	63.7	64.8
Shopping	21	246	6.1	70.9
Visiting	6	252	1.7	72.6
Recreation	15	267	4.3	76.9
Medical	26	293	7.5	84.4
Nutrition	23	316	6.6	91.1
Social Services	15	331	4.3	95.4
Other	16	347	4.6	100.0
TOTAL	347	347	100.0	

TABLE 32 (Continued)

TRIP DESTINATIONS

Value	Frequency	Cumulative Frequency	Percent	Cumulative Percent
No Response	8	8	2.3	2.3
Home	107	115	30.8	33.1
Shopping	38	153	11.0	44.1
Visiting	9	162	2.6	46.7
Recreation	21	183	6.1	52.7
Medical	49	232	14.1	66.9
Nutrition	59	291	17.0	83.9
Social Services	14	305	4.0	87.9
Other	42	347	12.1	100.0
TOTAL	347	347	100.0	

TABLE 33

TRIP FREQUENCY
(Days Per Week)

Value	Frequency	Cumulative Frequency	Percent	Cumulative Percent
No Response	14	14	4.0	4.0
1 Day	70	84	20.2	24.2
2 Days	50	134	14.4	38.6
3 Days	43	177	12.4	51.0
4 Days	20	197	5.8	56.8
5 Days	90	287	25.9	82.7
6 Days	19	306	5.5	88.2
7 Days	25	331	7.2	95.4
First Time	2	333	0.6	96.0
Less than Once				
A Week	14	347	4.0	100.0
TOTAL	347	347	100.0	

The preponderance of the riders are elderly, with 87 percent being 60 years old or older, and 82.1 percent being 65 years old or older. In fact, there are almost twice as many persons using the service who are 80 or older (31.1 percent), as there are handicapped persons under 60 (14.4).

Not having a choice, as evident by not having a car available or not being able to drive, was the most important reason given by 92.5 percent of the

respondents as to why they use the demand responsive service. As shown in Table 31, even though contributions range between 15 and 25 cents per trip, only 1.4 percent of the users said they used the service because it was more economical. The convenience of the service was only cited by 4.3 percent of the tripmakers.

The transit dependency of the riders becomes very evident after reviewing their household income and auto availability. As shown in Table 30, 89 percent of the tripmakers reported annual household incomes of less than \$10,000, while 82 percent indicated that their household has no vehicles available.

Another interesting statistic indicating dependency on the service has to do with the gender of the tripmakers. Nearly 83 percent of the tripmakers were elderly women, presumably single with no other means of transportation available.

TABLE 34

HOUSEHOLD CHARACTERISTICS

HOUSEHOLD INCOME

Value	Frequency	Cumulative Frequency	Percent	Cumulative Percent
No Response	77	77	22.2	22.2
Less Than \$2500	79	156	22.8	45.0
\$2500-\$5000	83	239	23.9	68.9
\$5000-\$10,000	79	318	22.8	91.6
\$10,000-\$15,000	11	329	3.2	94.8
\$15,000-\$20,000	7	336	2.0	96.8
\$20,000-\$30,000	11	347	3.2	100.0
TOTAL	347	347	100.00	

VEHICLES AVAILABLE IN HOUSEHOLD

Value	Frequency	Cumulative Frequency	Percent	Cumulative Percent
None	284	284	81.8	81.8
One	36	320	20.4	92.2
Two	15	335	4.3	96.5
Three	12	347	3.5	100.0
TOTAL	347	347	100.0	

When the users of Burbank's Transportation Service were asked to indicate which three service improvements they were most interested in receiving, two responses stood out as clear favorites. Being able to call for a ride the same day or the day before instead of at least two working days before was the most desired improvement. The second most requested improvement -- scheduling a ride at any time of day -- would also increase the flexibility afforded the user of the service. As listed in Table 35, the next most requested improvements would expand the geographic coverage of the service, with being able to travel to any area within 15 miles of Burbank tying with traveling to North Hollywood and Glendale any day for any reason. (Two separate percentages were calculated in Table 33 to indicate the percentage of preferred responses based on the total number of responses and on the number of improvements actually requested.)

3. SURVEY OF RTD RIDERS

A separate survey of current RTD riders was not undertaken as part of this study (outside of the responses received from those heads of household who, when interviewed, indicated that they rode transit). However, in order to better understand the differences in attitudes and travel behavior between

RTD riders and the general population, the results of a telephone survey of RTD riders conducted by Barton-Aschman Associates during November, 1983 were also analyzed.

Those persons who were riding RTD buses were asked if they had shifted from another mode of travel since July 1982 when the Proposition A Fare Reduction Program went into effect. Only 28.5 percent responded that the reduced

TABLE 35

SERVICE IMPROVEMENTS REQUESTED

<u>Improvement</u>	<u>Frequency</u>	<u>Possible Percent (n=1041)</u>	<u>Percent of Improvements (n=677)</u>
Longer weekday hours	19	1.8	2.8
Longer weekend hours	52	5.0	7.7
Calling for a ride the same day or day before	232	22.3	34.3
Traveling to medical appointments within 15 miles of Burbank	60	5.8	8.9
Scheduling a ride at any time of the day	154	14.8	22.7
Traveling to North Hollywood and Glendale Wednesday through Sunday for medical appointments	29	2.8	4.3
Traveling to North Hollywood and Glendale any day for any reason	66	6.3	9.7
Traveling to other areas within 15 miles of Burbank	65	6.2	9.6

fares had caused them to shift from another mode for the bus trip they were making, with the remaining reasons being related to not having a car available for the trip.

When asked to indicate which factors they considered most important when evaluating bus service, the RTD riders gave the following rankings: reliability, safety, trip time, comfort, driver courtesy, and bus cleanliness. Then when asked to evaluate RTD's performance, the riders gave the following ranking to RTD's service: safety, driver courtesy, trip time, comfort, reliability, and cleanliness. What is most noteworthy is that, whereas reliability was rated as very important to non-transit users, RTD's riders listed this as one of the lowest ranked attribute of the service.

D. INTERVIEWS WITH OTHER AGENCIES

As another source for identifying possible transit needs in Burbank, representatives from various city departments, the largest employers in Burbank Commuter Computer, and regional planning agencies were interviewed. These persons were specifically asked about the current and potential role of the ridesharing modes in serving Burbank's residents, visitors, or employees. The highlights of the interviews which follow have been classified as representing city departments, major employers, etc.

City Departments. The current paratransit service in Burbank is operated by the Park and Recreation Department, as an outgrowth of its community services program. The immediate priorities for the Burbank Transportation Service include acquiring another van to improve reliability, and developing computer based schedules to increase efficiency. The department is interested in continuing to operate transit services, even if expanded to a municipal, general public operation.

There are no other city departments integrally responsible for transit planning or operations. However, the Burbank Redevelopment Agency has prepared transportation plans for the city's three redevelopment projects which call for transit and other ridesharing modes to carry significant numbers of future employees. Although recommendations for possible shuttle systems and transit centers have been presented, no detailed final commitment to these potential projects has been made, pending the outcome of this study.

Major Employers. Representatives from the largest employers in Burbank -- Lockheed, Disney, NBC, St. Joseph's Medical Center, the Burbank Studios, and Warner/Elektra/Atlantic -- were also interviewed. These interviews revealed the following about current conditions and attitudes:

1. No organized programs are currently underway to effectively increase the number of transit riders, carpoolers, or vanpoolers. For example, although there are carpools in operation at some of the employment sites, these have been formed without receiving any preferential treatment, such as close-in parking, from their employers.
2. All companies, except for Lockheed, are currently registered with Commuter Computer, the regional rideshare organization, but no company representative could state how many carpools were in operation. The number of carpools actually formed through the auspices of Commuter Computer's matching program was considered to be very small.

3. Flexible working hours, particularly in the Media District, and at St. Joseph's Medical Center, were held as key reasons why increasing the number of transit riders or persons sharing rides might be difficult to accomplish.
4. All employers, except for the Burbank Studios, indicated that they not only had no parking supply deficiencies, but that they had and would continue to provide the amounts of parking required by their employees and visitors.
5. Reactions to a shuttle service linking the City's three redevelopment project areas were generally negative, with most representatives indicating no need for their employees to travel from one area of Burbank to another during the workday. However, the reaction to a shuttle within the Media District, particularly one serving a satellite parking facility received more interest. Even though the need for the shuttle was not considered to be major during lunch hours, the construction of a satellite parking facility by the City was considered as a positive step by the studios to permit more intensive use of their own properties.

Commuter Computer. Not including Lockheed Corporation, there are 25 work sites containing 11,235 employees presently cooperating with Commuter Computer. Of these, at last count 6,207 employees were registered with Commuter Computer to receive matchlists. Based on regional statistics, 30% of those registered will actually be interested in using their matchlists, so that about 15 percent of all employees will actually try to use the matchlists provided. Since different work shifts and residential dispersion will make finding matches very difficult, Commuter Computer is seeking to increase management's direct support of rideshare programs, as well as

cooperation within a job center, and not just for individual companies.

Burbank Airport. In May 1984, a study of possible improvements in transit service to the Burbank Airport was undertaken. That study concluded that shuttle bus service would not necessarily increase the use of Burbank Airport because congestion or high parking fees are not deterring people from using the airport. Among the data items which were analyzed in order to reach this conclusion were the following:

1. Only 28 percent of the representatives of companies located in Burbank, Glendale, or Pasadena thought that a shuttle would be useful.
2. Those private operators who had tried to provide bus service to the Burbank Airport had failed because of low passenger volumes, the isolation of the airport from their other routes, and a service area characterized by one-way trips.
3. Nearly 3/4 of those questioned in the survey of companies indicated that accessibility to the airport was excellent.
4. Nearly 3/4 of those making a trip to the airport spent less than 1/2 hour getting there. Nearly the same percentage indicated they would use transit, but only if it didn't take longer than 1/2 hour to get them to the airport.

E. KEY CONCLUSIONS

A variety of data sources were used to identify the current and future transit needs of Burbank's residents, employees, and employers. In the

following paragraphs, Burbank's transit needs have been categorized using the three population groups and 2 time periods just listed in order to help identify possible priorities and responsibilities for implementation.

1. Existing Conditions

Residents. The primary need for transit services is exhibited by those residents, 9.2 percent of Burbank's total, who do not have an auto available in their household. The largest concentration of these households can be found south of downtown in census tract 3107 (See Figure 10). Other census tracts which contain smaller percentages of autoless households, but still exceed the City average are found predominantly west of the Golden State Freeway. These households need some form of fixed route or demand responsive transit service because they have no other means of transport available to them.

Another large group of Burbank residents in need of transit service are the elderly, particularly those persons unable or unwilling to drive their own vehicle. At least 30 percent of Burbank's 12,769 residents who are 65 or older would be totally dependent on transit to make these trips. Currently, Burbank's Transportation Service provides trips to only about two percent of this eligible group, primarily because of service limitations, and also because of lack of awareness.

Persons who are unable to use regular transit services because of a mental or physical disability require special services, typically paratransit. Approximately 35 percent of Burbank's population was classified by the 1980 census as being transit disabled.

Transit usage by the general population is currently somewhat higher than expected given Burbank's household income, auto availability, and place of work characteristics. Approximately 7.7 percent of Burbank's households reported in a telephone survey that one of their members had used transit during the last week. Given that Burbank's households have incomes and auto ownership rates which are higher than Los Angeles County's, the amount of market penetration achieved by existing transit services is somewhat surprising given the generally low levels of service which are provided by RTD, and the low percentage of Burbank's residents who work in downtown Los Angeles.

As noted in Table 1, only 1 of RTD's routes directly serving Burbank offers headways of 10 minutes, the level considered very important by 94.2 percent of Burbank's riders who might consider using transit. In fact, out of 28 destinations analyzed, travel times on RTD buses exceeded 30 minutes for 19 of them, and 45 minutes for 12 of them, even during peak periods. During off peak periods, when headways and wait times would be even greater, the level of accessibility would be even lower. Increasing the directness of service available from Burbank, or reducing wait times through scheduling improvements or headway changes, are transit supply needs affecting both current and potential ridership levels.

Employees. A very high 36 percent of Burbank's employed residents travel to work within Burbank. Since free parking is provided to nearly all employees, and since only short stretches of arterial streets are congested during rush hours, these employees do not consider transit to be a viable competitor to driving. Since 9.2 percent of the City's households have no autos available, approximately 1400 of Burbank's employed residents would depend on transit to get them to work within Burbank.

The majority of Burbank's residents are employed outside the City, generally in locations with few incentives (high parking costs, low parking availability) for high transit usage. Only about 10 percent of Burbank's residents are employed in downtown Los Angeles. 20% of these workers commute via transit, with the few express bus trips during peak periods and the lack of express bus service during the peak periods inhibiting the creation of a larger share of transit riders. Express bus routes or even direct local bus routes are currently not provided by RID to most employment areas which Burbank residents travel to, so that this service deficiency would have to be addressed in order to possibly increase transit ridership.

Employers. Almost all of the major employers in Burbank, with the exception of Burbank Studios, have committed themselves to the capital and on-going maintenance and operating costs associated with providing the number of parking spaces required by their employees or visitors. Current efforts to increase the number of employees using ridesharing modes and transit to get to work are meager, generally ineffective, and lack commitment from management.

2. FUTURE CONDITIONS

Residents. Burbank's population is likely to increase very slowly, certainly less than 1 percent per year, for the next 10 to 20 years. The higher than average proportion of elderly residents will probably not change because, even though younger families may move into single family homes now occupied by single (usually widowed) heads of households, elderly persons are likely to occupy many of the condominiums being built in the City. Assuming a continued aging of the population, it is possible that 20 years from now, 20 percent of Burbank's population of 90,000 will be at 65 years old. Assuming that at least 30 percent of these persons will be unable to

drive, then 5,400 elderly residents in Burbank will require transit services.

Projecting the future number of autoless households is not an easy task. On the one hand, auto ownership rates and family incomes have been steadily increasing. Rising housing costs in Burbank are also likely to reduce the number of housing opportunities which can be afforded by autoless, generally low income, households. On the other hand, continued immigration and Burbank's central location within Los Angeles county may help to keep the percentage of autoless households at least at today's levels. If 9 percent of Burbank's future households are projected to be autoless, then approximately 8,100 persons will require transit services to make their trips.

The percentage of transit disabled persons is likely to increase because of advances in medical treatments, and increased longevity. Assuming that 4 percent of Burbank's future population is projected to be labeled as transit disabled means that approximately 3,600 Burbank residents may require some form of special transit service.

An increased need for transit is likely to be experienced by residents of Burbank who are employed in major regional activity centers, such as downtown Los Angeles. Assuming the continued growth in women's participation rates in the labor force, and delayed retirement because of changes in Social Security, Burbank's 90,000 residents are like to include 50,000 employed residents. Since Burbank is very close to downtown Los Angeles, and since the number of jobs in downtown Los Angeles is projected to increase steadily, then the percentage of Burbank's residents working in downtown Los Angeles is likely to increase from 10% to at least 15%. Thus, 7500 of Burbank's future employed residents will require premium transit

service to downtown Los Angeles.

Employees. The most dramatic change in Burbank over the next 20 years is likely to be the nearly 33 percent increase in jobs, particularly office and retail jobs located within the Media District and Town Centre areas. Although the provision of some relatively minor street improvements and the construction of parking garages are being promoted as the most detailed means of providing additional capacity for moving and storing vehicles, the need for increased use of transit and ridesharing modes has also been recognized. An additional 20,000 employees are likely to more than double the number of Media District employees. Since concurrent increases in the capacity of the regional freeway and local arterial systems are not possible, then interest in or demand for improved transit services to the Media District and to the Town Centre projects will increase drastically, resulting in a need for improved regional transit service to these destinations, and more effective rideshare programs generating higher carpool and vanpool formation rates. If direct and express transit services are not provided to the Media District, improved line-haul service being the highest priority for this area, then satellite parking facilities strategically located to intercept traffic from the freeways and a local circulation shuttle bus operation will be needed to mitigate against peak hour congestion. Similar type needs, although at a reduced scale, will affect the Town Centre area.

-

Employers. Increasing intensities of employment, particularly in the Media District, will require increases of transit and ridesharing modes by the employees working in Burbank. At the current time, no rail transit lines or high-occupancy vehicle lanes designed to provide preferential treatment for transit riders or carpoolers are planned to serve Burbank. Burbank's employers, as well as the City, face the need for expanded advocacy at all

available planning and programming forums, as well as increased responsibility for funding the required transit and rideshare programs.

Table 37 lists the transit needs identified to date for Burbank. This list has been prepared without any constraints due to possible responsibility for implementation or funding source, i.e., this is a comprehensive list which includes more needs than can possibly be addressed using Burbank's Proposition A revenues of approximately \$750,000 per year (in constant dollars).

TABLE 36

BURBANK'S TRANSIT NEEDS

Current (1985)

Group

Mobility Needs

Households with no autos available

Elderly with likely inability to drive

Transit disabled persons

Accessibilit Needs

Residents working in downtown Los Angeles

RTD service limitations -- indirect service, high headways, few express trips, no off peak express trips

Future (2000-2005)

Group

Mobility Needs

Households with no autos available

Elderly with likely inability to drive

Transit disabled

Accessibility Needs

Residents working in downtown Los Angeles

Employees in the Media district -- total
who are burbank residents
who are not Burbank residents

Employees in the Town Centre Area

No planned rail transit lines or HOV lanes

Land Banking

Possible rail stations, park-and-ride lots,
transit centers

APPENDIX A
BURBANK (HOUSEHOLD TELEPHONE SURVEY
QUESTIONNAIRE

BURBANK TELEPHONE SURVEY

Hello, my name is _____ . I'm calling on behalf of the City of Burbank, and we're talking to some people in the City today about their recent travel. We are just looking for some information and for your opinions about transportation.

1. First, am I speaking to one of the heads of your household? (If "no," ask for one. If not available, terminate interview.)

2. Next, did you ride transit last week?
(RTD bus or Burbank's Transportation Service)

- 1 Yes 2 No (skip to question 6)

_____ 4

3. (If "yes"). How often do you ride transit?

- 1 Every day 2 5 days a week 3 2 or 3 days a week
4 1 day a week 5 That was the first time

_____ 5

4. What was the main purpose for the trips where you rode transit?

- 1 Work or business related 2 Shopping 3 Recreation
4 School or college 5 Doctor/Dentist 6 Personal Business

_____ 6

5. What is the second type of trip purpose for which you used transit last week?

- 1 Work or business related 2 Shopping 3 Recreation
4 School or college 5 Doctor/Dentist 6 Personal Business
7 No other purpose

_____ 7

6. When was the last time that you used transit?

- 1 Last month 2 Last year 3 About 2 years ago
4 Over 5 years ago 5 Never

_____ 8

7. When was the last time that you rode a taxi?

- 1 Last week 2 Last month 3 Last year
4 About 2 years ago 5 Over 5 years ago 6 Never

_____ 9

8. What is the most important reason why you do not use transit? (If "no" to question 2).

- 1 It takes too much time.
- 2 It is not convenient (have to transfer, have to get going early, have to wait).
- 3 I don't think the bus ride would be comfortable.
- 4 I don't think the service is reliable (breakdowns and delays cause schedules to be missed).
- 5 I don't think it is safe to ride the bus or wait for a bus.
- 6 I've never considered transit, so I don't think much about the service available.
- 7 I need my car during the day.
- 8 I am in a carpool/vanpool.

10

9. In deciding which mode of travel to use, please rank the importance of the following factors. For each, tell me if you consider it very important(1), important(2), or not important(3).

Total trip time

11

Time for waiting or transferring

12

Cost or fare

13

Reliability

14

Control of travel environment

15

Free or cheap parking

16

10. For which trip purpose would you most strongly consider using transit?

- 1 Work or business related 2 Shopping 3 Recreation
- 4 School or college 5 Doctor/Dentist 6 Personal Business
- 7 None (skip to question ¹³ 11)

17

11. For that trip that you might consider using transit, how important are the following in order for you to consider switching to transit. Please use very important(1), important(2), or not important(3) for your answers.

Service where I would have to wait less than 10 minutes for the first bus.

18

Direct service to my destination so that I don't have to transfer.

19

Service available within 2 blocks of my home.

20

Service available within 2 blocks of my destination.

21

Total trip times no more than twice as long as driving.

22

12. If these service improvements were made, which of the following would you do? (one answer only)

1 Ride transit frequently, at least for school or work trips.

2 Ride transit frequently for other trip purposes.

3 Ride transit only if our/my car was not available for the trip.

23

4 Ride transit once as a novelty or new experience.

13. Did anyone else in your household ride transit last week?

1 Yes

2 No (Skip to question 17)

24

14. (If "yes") How many people in your household, other than you, rode transit last week?

1 One

2 Two

3 Three

25

4 Four

5 Five or more

15. For the other person that rode transit last week and made the most transit trips, how often does that person use transit?

1 Every day

2 5 days a week

3 2 or 3 days a week

4 1 day a week

5 That was the first time

26

16. What was the main purpose for the trips where that person rode transit?

1 Work or business related

2 Shopping

3 Recreation

4 School or college

5 Doctor/Dentist

6 Personal Business

27

17. Are you or other members of your household currently employed?

1 Yes, full time

2 Yes, part-time

3 No (skip to question 20)

28

18. (If "Yes") How do you (or they) usually get to work?

1 Driving alone	2 Carpool/vanpool	3 Bus	
4 Walk	5 Bicycle/moped/motorcycle	6 Work at home	29

19. What is the name of the City where you (or they) work? (If Los Angeles, specify neighborhood or area.) _____

30,31

20. Are you or other members of your household currently going to school, college, or university?

1 Yes, elementary through high school	
2 Yes, community college or university	32
3 No (skip to question 23)	

21. (If "Yes") How do you (or they) usually get to school, college, or university?

1 Driving alone	2 Carpool/vanpool	3 Bus	
4 Walk	5 Bicycle/moped/motorcycle		33

22. What is the name of the city where you (or they) go to school, college or university? (If Los Angeles, specify neighborhood or area.) _____

34,35

23. What are the most important transportation problems you think that Burbank should address?

36 - 40

24. Now, specifically for transit, are there any problems that you think the City should address?

41 - 45

Now we would like to ask you some questions about your household.

25. What is your age?

46

26. How many people live in your household?

47

27. How many vehicles (cars, trucks, vans) do you keep at your household?

48

28. What is your total household income? (in thousands)

49

Thank you very much for your cooperation.

APPENDIX B
BURBANK RIDERSHIP SURVEY
QUESTIONNAIRE

Dear Rider:

Please fill out this short survey during your van ride today.

All information will be kept in strictest confidence.

The information collected will help the City of Burbank plan for future transit services.

If you have any questions or need help, the driver will help you.

When you have finished, please return this survey to the driver.

Thank you for your help.

BURBANK PARK AND RECREATION DEPARTMENT

1. **WHERE** were you **BEFORE** you got on **THIS** van? (Check one only)

- | | | |
|-------------------------------------|---|--|
| 1 <input type="checkbox"/> Home | 4 <input type="checkbox"/> Recreation | 7 <input type="checkbox"/> Social Services |
| 2 <input type="checkbox"/> Shopping | 5 <input type="checkbox"/> Doctor/Dentist | 8 <input type="checkbox"/> Other |
| 3 <input type="checkbox"/> Visiting | 6 <input type="checkbox"/> Nutrition | |

2. Did you **GET ON** this van in Burbank?

- 1 Yes 2 No

3. **WHERE** are you **GOING TO** now?

- | | | |
|-------------------------------------|---|--|
| 1 <input type="checkbox"/> Home | 4 <input type="checkbox"/> Recreation | 7 <input type="checkbox"/> Social Services |
| 2 <input type="checkbox"/> Shopping | 5 <input type="checkbox"/> Doctor/Dentist | 8 <input type="checkbox"/> Other |
| 3 <input type="checkbox"/> Visiting | 6 <input type="checkbox"/> Nutrition | |

4. Will you **GET OFF** this van in Burbank?

- 1 Yes 2 No

Do not write
in this column

4

5

6

7

5. I **USUALLY** ride the van ? days a week. (Check one only)

- | | | | | | | | | |
|---|--------------------------|--------|---|--------------------------|--------|---|--------------------------|------------------------|
| 1 | <input type="checkbox"/> | 1 day | 4 | <input type="checkbox"/> | 4 days | 7 | <input type="checkbox"/> | 7 days |
| 2 | <input type="checkbox"/> | 2 days | 5 | <input type="checkbox"/> | 5 days | 8 | <input type="checkbox"/> | This is my first time. |
| 3 | <input type="checkbox"/> | 3 days | 6 | <input type="checkbox"/> | 6 days | 9 | <input type="checkbox"/> | Less than once a week. |

8

6. The **MOST IMPORTANT REASON I RIDE** the van is: (Check one only)

- | | | | | | |
|---|--------------------------|------------------------|---|--------------------------|----------------------------|
| 1 | <input type="checkbox"/> | I/we don't have a car. | 4 | <input type="checkbox"/> | Someone else uses the car. |
| 2 | <input type="checkbox"/> | I don't drive. | 5 | <input type="checkbox"/> | The van is convenient. |
| 3 | <input type="checkbox"/> | The van is economical. | 6 | <input type="checkbox"/> | Traffic is bad. |

9

7. I am _____ years of age.

10,11

8. I am:

- | | | | | | |
|---|--------------------------|------|---|--------------------------|--------|
| 1 | <input type="checkbox"/> | Male | 2 | <input type="checkbox"/> | Female |
|---|--------------------------|------|---|--------------------------|--------|

12

9. There are ? **MOTOR VEHICLES** (cars, trucks, vans) in running condition **AT** my **HOME**: (Check one only)

- | | | | | | |
|---|--------------------------|----------|---|--------------------------|-----------|
| 0 | <input type="checkbox"/> | 0 (none) | 2 | <input type="checkbox"/> | 2 |
| 1 | <input type="checkbox"/> | 1 | 3 | <input type="checkbox"/> | 3 or more |

13

10. I am **INTERESTED IN** the following **THREE SERVICE IMPROVEMENTS**: (Check any 3 that apply)

- | | | | | | |
|---|--------------------------|--|---|--------------------------|--|
| 1 | <input type="checkbox"/> | Longer hours on weekdays | 5 | <input type="checkbox"/> | Scheduling a ride at any time of the day |
| 2 | <input type="checkbox"/> | Longer hours on weekends | 6 | <input type="checkbox"/> | Travelling to North Hollywood and Glendale Wednesday through Sunday for medical appointments |
| 3 | <input type="checkbox"/> | Calling for a ride the same day or the day before | 7 | <input type="checkbox"/> | Travelling to North Hollywood and Glendale any day for any reason |
| 4 | <input type="checkbox"/> | Travelling to other areas within 15 miles of Burbank for medical reasons | 8 | <input type="checkbox"/> | Travelling to other areas within 15 miles of Burbank for any reason |

14

15

16

11. The **TOTAL ANNUAL INCOME** of my household **THIS YEAR** is:

- | | | | | | |
|---|--------------------------|--------------------|---|--------------------------|---------------------|
| 1 | <input type="checkbox"/> | Less than \$2,500 | 4 | <input type="checkbox"/> | \$10,000 - \$15,000 |
| 2 | <input type="checkbox"/> | \$2,500 - \$5,000 | 5 | <input type="checkbox"/> | \$15,000 - \$20,000 |
| 3 | <input type="checkbox"/> | \$5,000 - \$10,000 | 6 | <input type="checkbox"/> | \$20,000 - \$30,000 |

17

