Oxnard - 2000 General Plan

Basis for Planning

GRUEN ASSOCIATES·
ARCHITECTURE · PLANNING · ENGINEERING

THE OXNARD, CALIFORNIA

GENERAL PLAN

June, 1969

FINAL REPORT I

BASIS FOR PLANNING

GRUEN ASSOCIATES

OXNARD, CALIFORNIA

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REPORT ON ECONOMIC POTENTIAL

OXNARD GENERAL PLAN UPDATING PROGRAM

Section I of Volume I of the Oxnard General Plan was originally conceived as a working paper which summarized economic investigations carried on by Gruen Associates. These investigations were undertaken to establish a basis of facts and projections from which exploratory planning studies then proceeded.

The material in this report was subject to change as the planning progressed and was not all inclusive; throughout the progress of the study additional information was assembled and evaluated. This report was closely followed by a report which summarized physical factors affecting planning. The primary emphasis in the General Plan Updating Program was on exploratory planning.

All data within Section I is, consequently, to be viewed as of June, 1967.

OXNARD 2000 - A REPORT ON THE ECONOMIC POTENTIAL OF THE OXNARD STUDY AREA

A SUMMARY OF THE MAJOR GROWTH EXPECTATIONS

Population Size

The Oxnard Study Area is on the verge of great population expansion. From an existing population of over 300,000 Ventura County can be expected to accommodate over 2,000,000 people by the year 2000. The Oxnard Plain, including the cities of Oxnard and Port Hueneme, has traditionally been the population center of the County. The Oxnard Plain can be expected to remain the population center of the County. The City of Oxnard can logically, therefore, be the dominant urban center of Ventura County. This urban center*, with its current population presently slightly over 100,000, can be expected to grow to over 500,000 persons by the year 2000. Although the eastern portion of the County has experienced the greatest population gain in the last few years, the opportunities on the Oxnard Plain are such that this region should experience renewed vigor of population growth over the next several decades.

Population - Characteristics

A rapidly expanding community experiences distinct changes in the age distribution of its population. The next few decades of rapid population growth on the Oxnard Plain means that percentages of children and middle-aged parents will remain at or exceed current high percentages of these age groups. As the population growth rate begins to slacken in later years, percentages of young adults and persons over 45 will logically increase. This will have the effect of leveling out the age distribution of

* The "urban center" as used in this report refers to the Oxnard-Port Hueneme urbanized area.

the population. In addition, the currently high percentage of young adult males will decrease as the effect of a significant military population is tempered by the increasing civilian population.

Investment - Residential

A viable and vigorously growing community invites maximum investment opportunity of the type recently seen in Orange County. In order to accommodate the expected population gain, the number of dwelling units over the next 35 years must increase six- to ten-fold. A greater dependence on multiple units to accommodate this population surge will result in maximizing investment in land for residential use. Multiple units may rise to as much as 85% of all new units built by the year 2000.

Investment - Commercial

The potential quantity of disposable income of the population on the Oxnard Plain will also invite maximum investment opportunities. Currently the per capita income is somewhat lower than the average for the Southern California region. Because of the population surge, this situation can be expected to be corrected and per capita income should rise at a greater rate than the Southern California region average. Disposable per capita income, now approximately $2,000, may exceed $4,000 by the year 2000. Disposable household income should reach $15,000 in that same period. This has vast implications for the commercial needs of the community. Commercial needs for the community will exceed a tenfold rise by the year 2000. While sales of food stuffs, or convenience goods, will rise from $30,000,000 to about $400,000,000 by the year 2000, merchandise or shopper goods sales should rise from $30,000,000 to about $500,000,000. A rise in automotive sales should equal that of sales of convenience goods and services purchased by the population will likewise experience a similar growth.

Investment Opportunities

Employment in Ventura County has been less than that for the Southern California region. A significant portion of the population of Ventura County is employed in Los Angeles County. The population of the Oxnard Plain area, however, is largely employed within that area. As population increases, the needs and opportunities for employment will greatly increase within that area. In particular, industrial employment will greatly increase. Manufacturing employment is generally tied closely to population growth of a region.

Ventura County as a whole and the Oxnard Plain area in particular now have less than 15% of all employed persons working in manufacturing. By the year 2000 this percentage could increase to as much as 30%. The increase in employment in other categories will be more closely tied to population growth, with the exceptions of agriculture and government. Both of these categories will capture a smaller percentage of the employed population.

The following illustrations summarize the range of major growth opportunities projected for the Oxnard Study Area. (The Study Area is shown in Figure 20, following Page I-35.)

Following this information, detailed data concerning background, methods, and other specifics have been documented.

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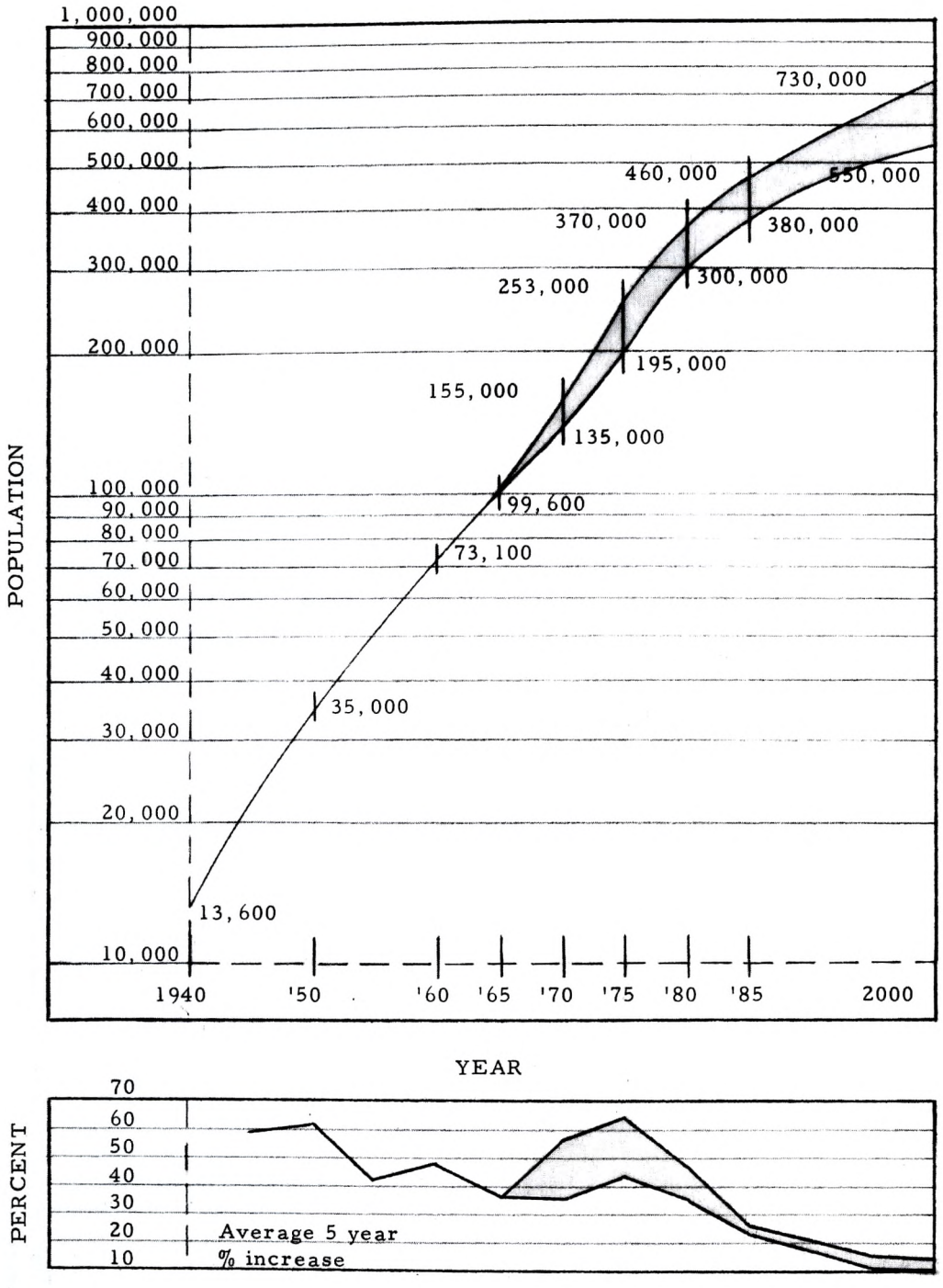
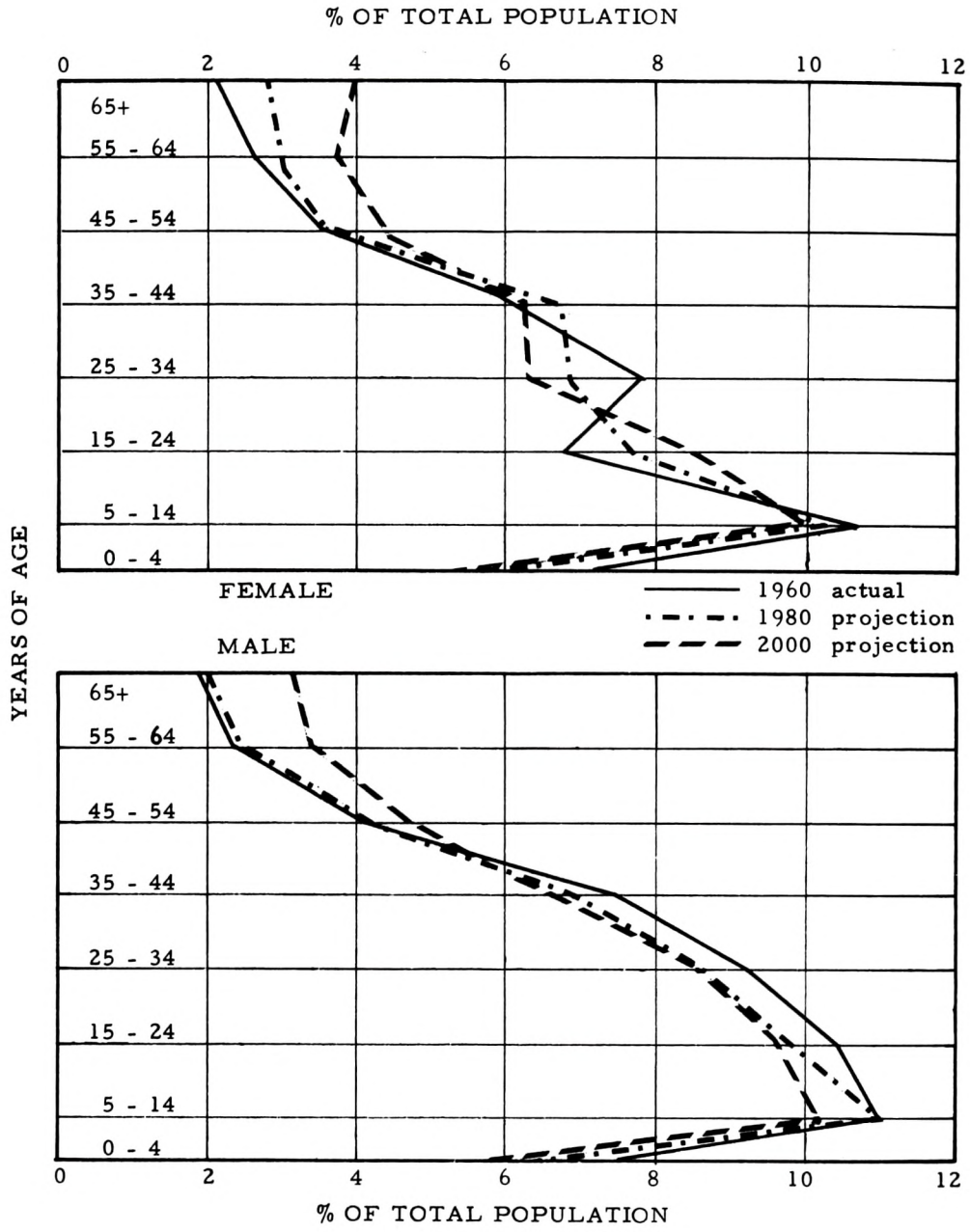
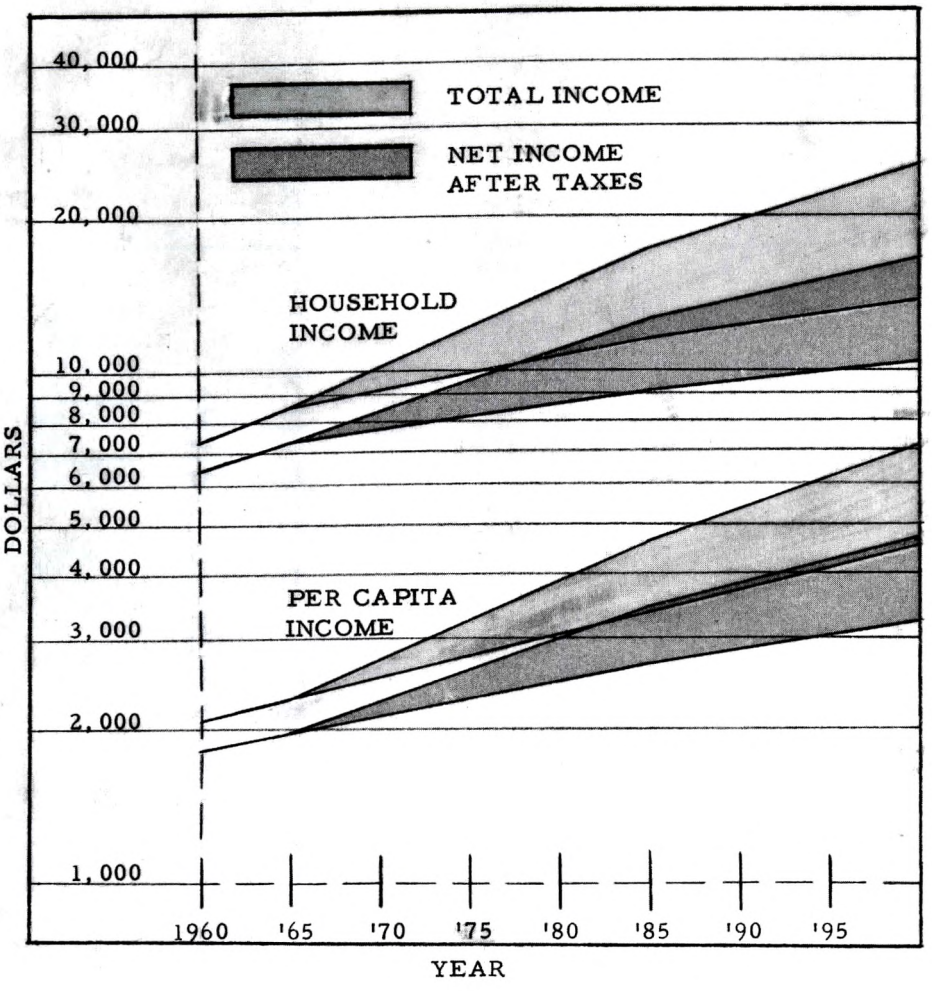


FIGURE A PROJECTION OF POPULATION



Age	Year	1960	1980	2000
Percent Distribution	0 -14	36.2	34.5	31.7
	15-64	59.9	60.7	61.3
	65+	3.9	4.8	7.0

FIGURE B PROJECTION OF AGE-SEX DISTRIBUTION



1950	10.7
1960	11.5
1980	12.9
2000	14.2

Median school years completed for persons 25 years and older

	1965	1985	2000
Total per capita income	2,300	3,400-4,640	4,590-7,150
Total household income	8,520	11,600-17,200	13,800-25,000
Net per capita income	1,980	2,690-3,450	3,490-4,770
Net household income	7,320	9,140-12,730	10,450-16,690

INCOME

FIGURE C PER CAPITA & HOUSEHOLD INCOME - EDUCATION LEVEL

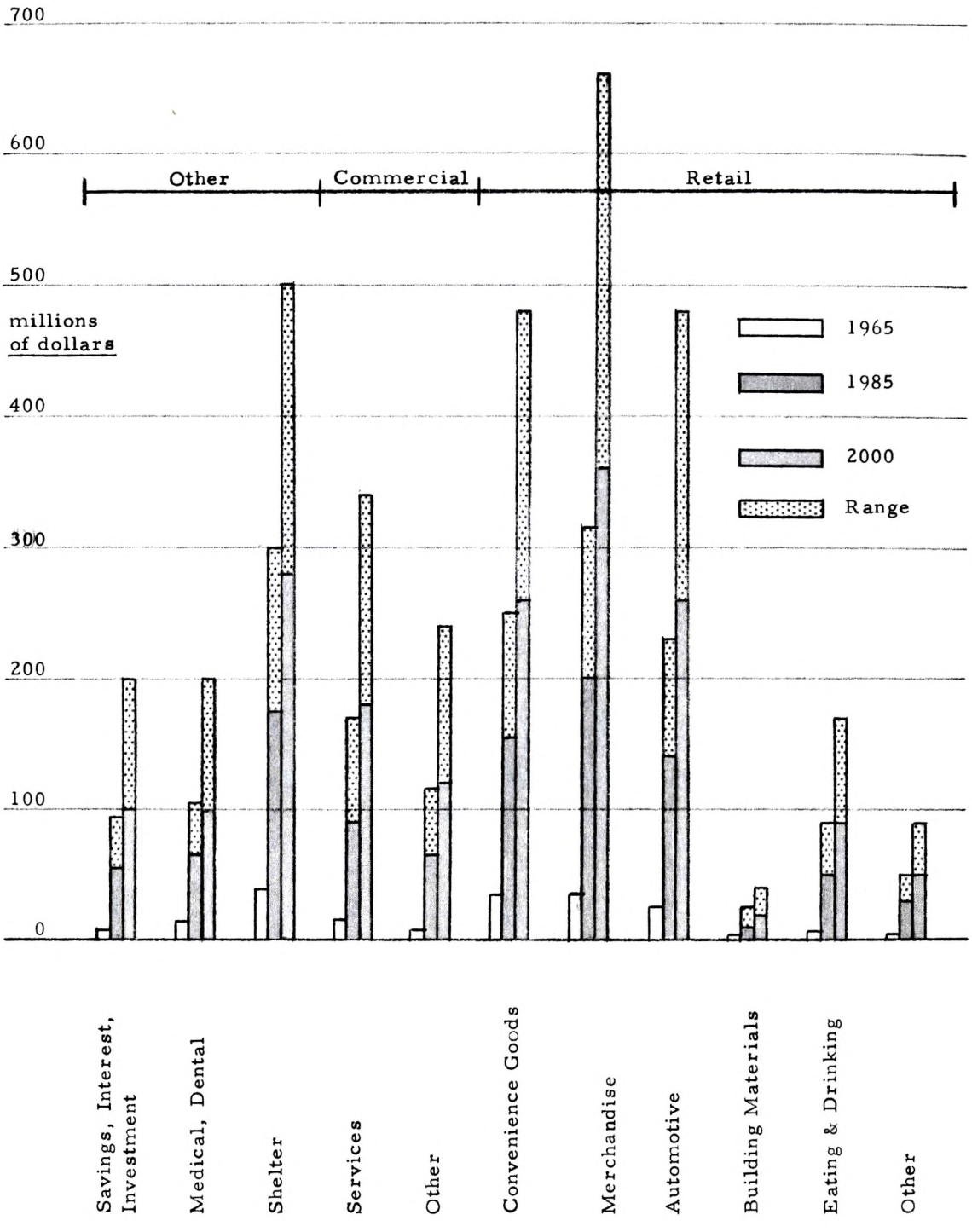


FIGURE D DISPOSITION OF PROJECTED DISPOSABLE INCOME

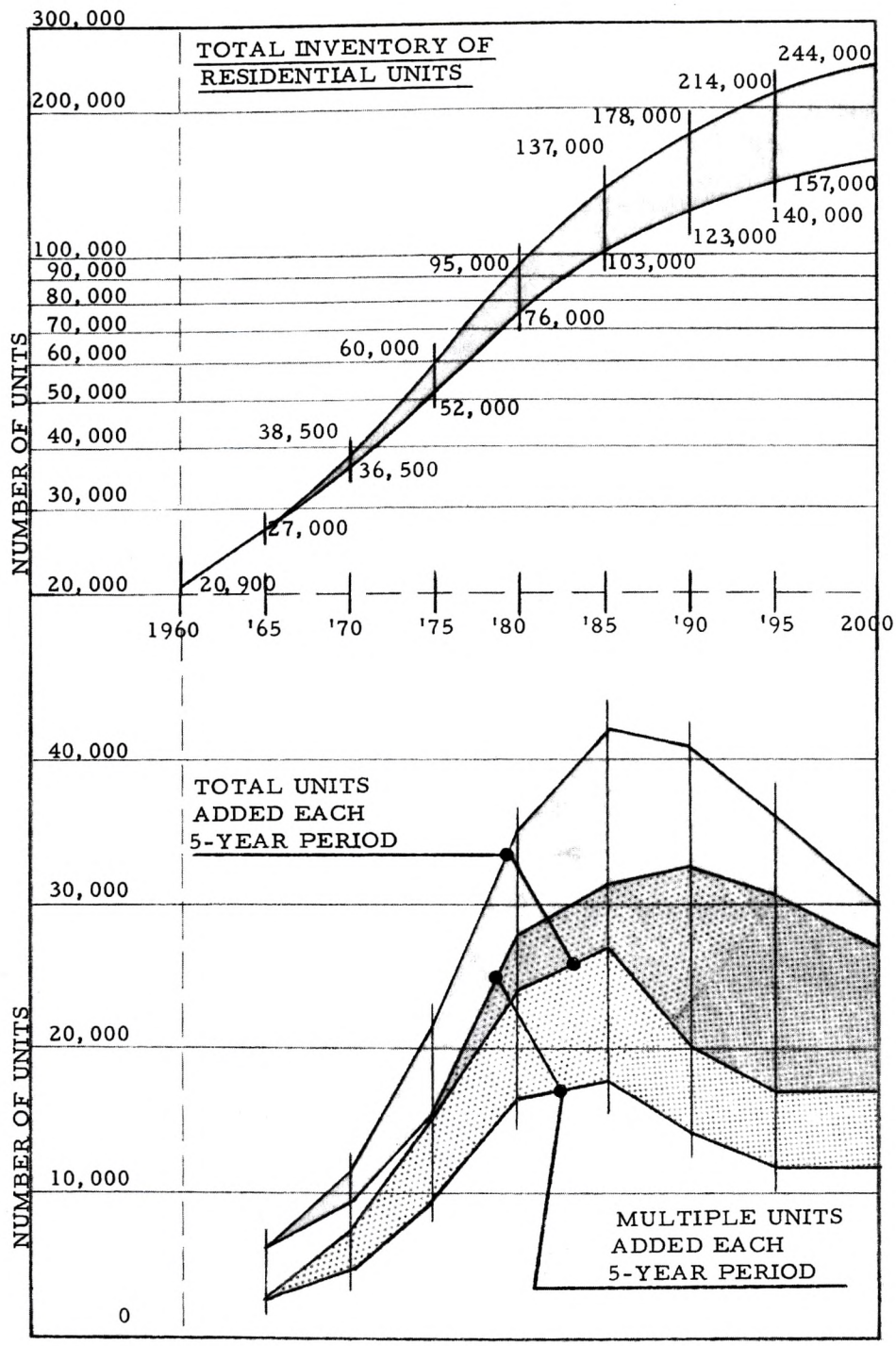


FIGURE E PROJECTION OF RESIDENTIAL UNITS

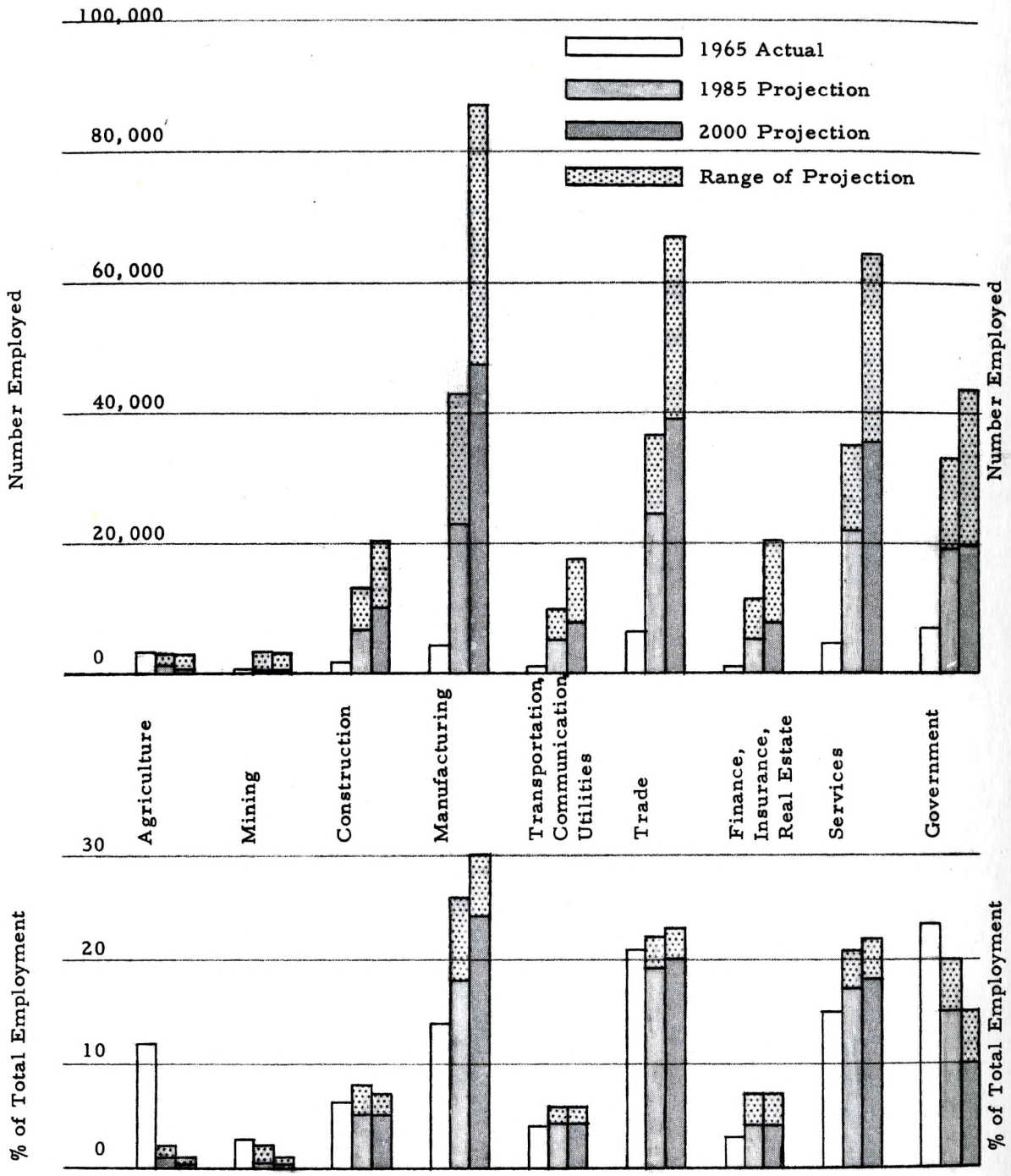


FIGURE F PROJECTION OF EMPLOYMENT

TOTAL RETAIL/COMMERCIAL AREA REQUIREMENTS

Net area (not including parking or roads)
in thousands of square feet

	1965	1985	2000
Convenience Goods	420	1,409 - 2,273	1,793 - 3,310
Merchandise	692	2,985 - 4,701	4,000 - 7,333
Auto Sales and Repair	320	1,321 - 2,170	1,857 - 3,428
Building Materials	68	149 - 373	222 - 445
Eating & Drinking	158	746 - 1,343	1,000 - 1,889
Other	134	448 - 746	556 - 1,000
Total Retail	1,792	7,058 -11,606	9,428 -17,405
Offices	650	2,850 - 3,450	4,400 - 5,840
Wholesale	2,000	7,600 - 9,200	11,000 -14,600
Transient Lodging*	1,200	6,100 - 7,350	11,000 -14,600
Commercial Amusement*	1,000	3,800 - 4,600	5,500 - 7,300
Service Stations*	2,000	7,600 - 9,200	11,000 -14,600
Total Other Commercial	8,612	35,008 -45,406	52,048 -73,985

* includes parking

Area Requirements for Dwelling Units and Schools

gross area in acres

	1985	2000
Dwelling Units	14,700 - 19,600	15,700 - 24,400
Elementary Schools	900 - 1,100	950 - 1,250
Junior High	450 - 600	500 - 700
Senior High	600 - 700	600 - 800
Junior College	100	250

The Primary Study Area has a gross area of 55,000 acres; 6,500 acres are occupied by the three military bases in the area.

FIGURE G AREA REQUIREMENTS

POPULATION PROJECTIONS AND ECONOMIC ANALYSIS - OXNARD STUDY AREA

1. Introduction: Factors Influencing the Economic Base

Ventura County is on the verge of great population expansion which will occur over the next several decades. The region around Oxnard, the Cities of Oxnard and Point Hueneme (which are the particular concern of this report), now holds a major part of the population of the County. This area will share in the expansion of population. The extent of the population expansion and the ramifications of the economic impact on the area are of vital concern in formulating the general plan for the Oxnard study area.

Population projections have been made public by several agencies concerned with the County of Ventura and the five-county region around Los Angeles. This report examines the factors influencing population projections and, in particular, the projections of population in Ventura County. After examining these factors, our degree of concurrence with existing population projections will be given and our reasons for deviation will be defined. The primary task of this report, however, will be to project population for the Oxnard Plain study area. Drawing upon our interpretation of projections for the region and the County, we will project population for both the total area influencing the Oxnard Plain and for the Oxnard Plain study area itself.

As a basis for the general plan, not only are population projections required, but the characteristics of that population must be projected. This report examines the composition of the population and any trends which might be appearing in that composition. Implicit in the size and characteristics of the population are the economic needs of that population. The general plan is a workable solution to those needs. Therefore, based upon size and characteristics of the population, the economic needs will be defined.

Housing, commercial and employment needs will be defined based upon the projections of population for the study area.

2. Definition of Study Areas

Policies for the Oxnard General Plan are dependent not only on the immediate Oxnard region, but to varying degrees on a set of expanding spheres of influence. Although the actual study area is defined by contract, a much larger region must be studied, particularly in view of the dynamic and interrelated growth conditions of Southern California.

The Ventura County Planning Department has established a series of boundaries defining "statistical areas", which are grouped into cohesive "planning areas". These areas are defined more logically (and hopefully more consistently) than past census tracts in relation to population and natural boundaries. The contractual region of concern is the Oxnard-Port Hueneme Planning Area, consisting of the El Rio-Nyland Acres (26), Oxnard East (27), Oxnard South (28), and Oxnard West (29) statistical areas, with the addition of minor portions of the Camarillo Urban (2) and Las Posas Valley (3) statistical areas. This region will be called the Primary Study Area throughout this report.

The "Map of Economic Study Areas" at the front of this report shows the limits of the Primary Study Area. The population of this region was 107,290 in October 1966, up 47.2% from the 1960 census, at an average of 7.3% per year.

Certainly the external region of heaviest influence on the Primary Study Area is the so-called Oxnard Plain, encompassing the Cities of Ventura, Santa Paula, and Camarillo, in addition to the Primary Study Area. This Secondary Study Area is well defined physically by the mountains surrounding the Plain. Additional County statistical units included in the Secondary planning area are Calleguas (1),

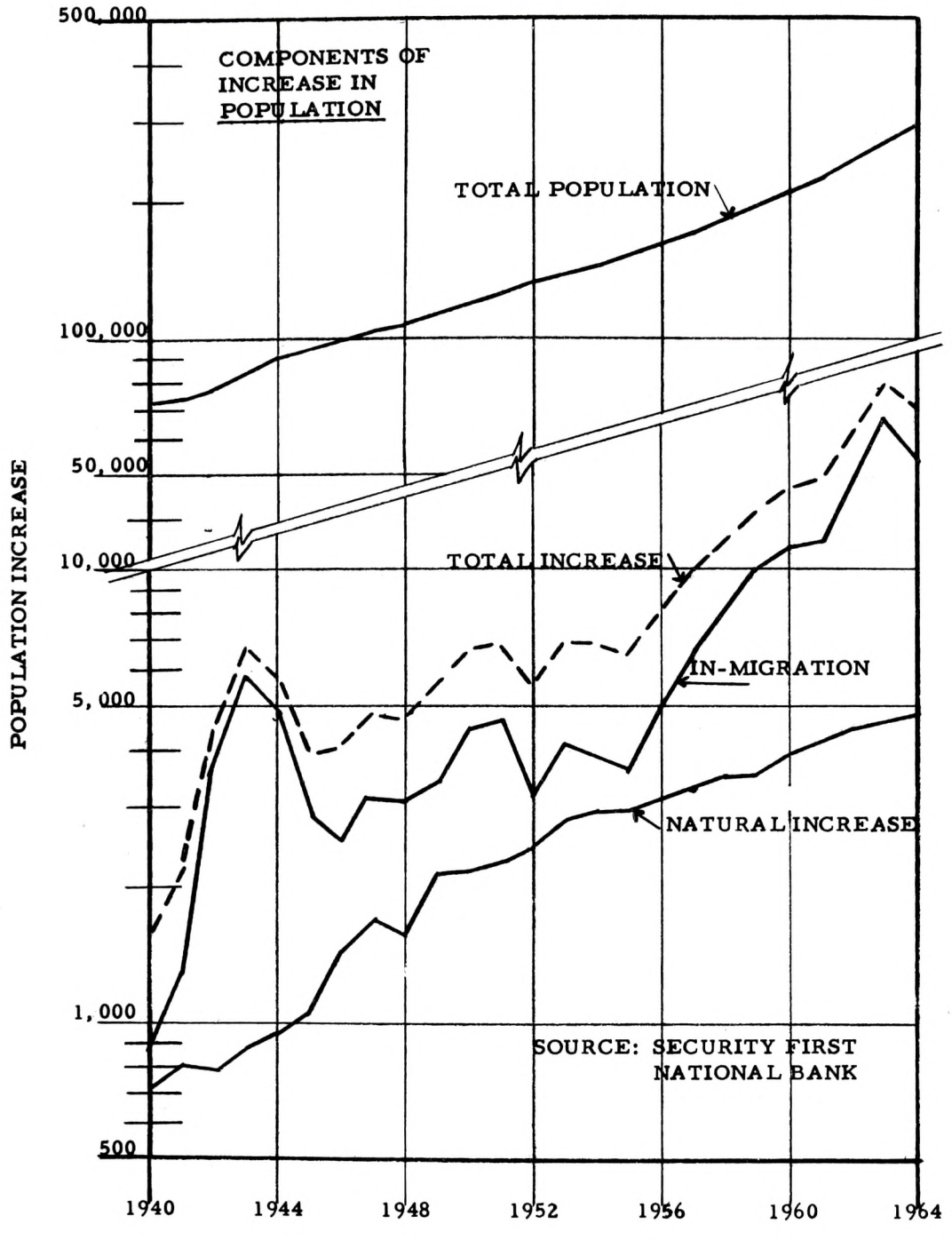

COMPONENTS OF INCREASE IN POPULATION
TOTAL POPULATION
TOTAL INCREASE
IN-MIGRATION
NATURAL INCREASE
SOURCE: SECURITY FIRST NATIONAL BANK
POPULATION INCREASE
500,000
100,000
50,000
10,000
5,000
1,000
500
1940
1944
1948
1952
1956
1960
1964

FIGURE 1

TABLE 1

VENTURA COUNTY POPULATION PROJECTIONS*

Agency	Projection	1970	1981	1985	2000
State Dept. Water Resources	1959	288.0	425.0		
Los Angeles Chamber of Com.	1959	287.0	428.0		
Stanford Research Institute	1959	263.2	360.8		
Planning Research Corp.	1959	283.8	452.7		
Southern California Edison	1962	448.3			
Los Angeles Chamber of Com.	1964	404.0	710.0		
Calif. Dept. of Finance	1964	419.5	738.6		
Ventura County Planning Dept.	1964	482.6	906.0	1,155.0	1,840.0
Los Angeles Chamber of Com.	1965	432.0	830.0	1,100.0	
Ventura County Planning Dept.	1966	522.5	1,182.5	1,547.5	2,330.0

FIVE-COUNTY POPULATION PROJECTIONS

Los Angeles Chamber of Com.	1964	10,545.0	13,610.0		
Calif. Dept. of Finance	1964	10,753.0	13,815.0		
Los Angeles Chamber of Com.	1965	10,700.0	13,850.0	15,500.0	

*October 1966 population has been estimated at 335,930 by the Ventura County Planning Department.

Camarillo Urban (2), Las Posas Valley (3), Santa Paula West (31), Saticoy (38), Ventura East (39), Ventura North (40), Ventura South (41), and Ventura West (42).

Population of the Secondary Study Area was 216,920 up 44.7% from the 1960 census. The Primary Study Area held 49.4% of the population of the Secondary Study Area in 1966.

The County as a whole is the next largest influence on the Primary Study Area. Although the Secondary Study Area held 64.6% of the population of Ventura County in 1966, the Secondary Area had a far higher percentage in 1960 (75.6%). This is due to the recent heavy growth of Eastern Ventura County. It is largely because of the ramifications of this fact that both the County of Ventura and the five-county region around Los Angeles are important areas to study in the context of an Oxnard General Plan. The growth of the sub-areas within the five-county area can be seen to have a high degree of interrelationship.

Oxnard, even today, must be considered somewhat remote from the Los Angeles growth center. In years past, even the eastern portions of Ventura County seemed distant from Los Angeles. Today, however, eastern Ventura County is going through dynamic population growth, the effect of which is to tie eastern Ventura County directly to Los Angeles. This, of course, is just one facet of the expanding Los Angeles megalopolis. It does account, however, for the rapid decrease in percentage of population held within the Secondary Study Area as compared to the County. What is significant is that the Oxnard Plain will eventually become a more coherent part of the megalopolis. The timing and extent of incorporation in the megalopolis is questionable, of course; but because this will weigh heavily on population projections for the study areas, the question must be considered.

The nature and extent of the megalopolis growth can be seen by studying the five-county region (Counties of Los Angeles, Orange, Ventura, Riverside, and San Bernardino). This five-county region is used in this report because it is a more cohesive and relevant unit than the 10- or 14-county unit often used in economic reports.

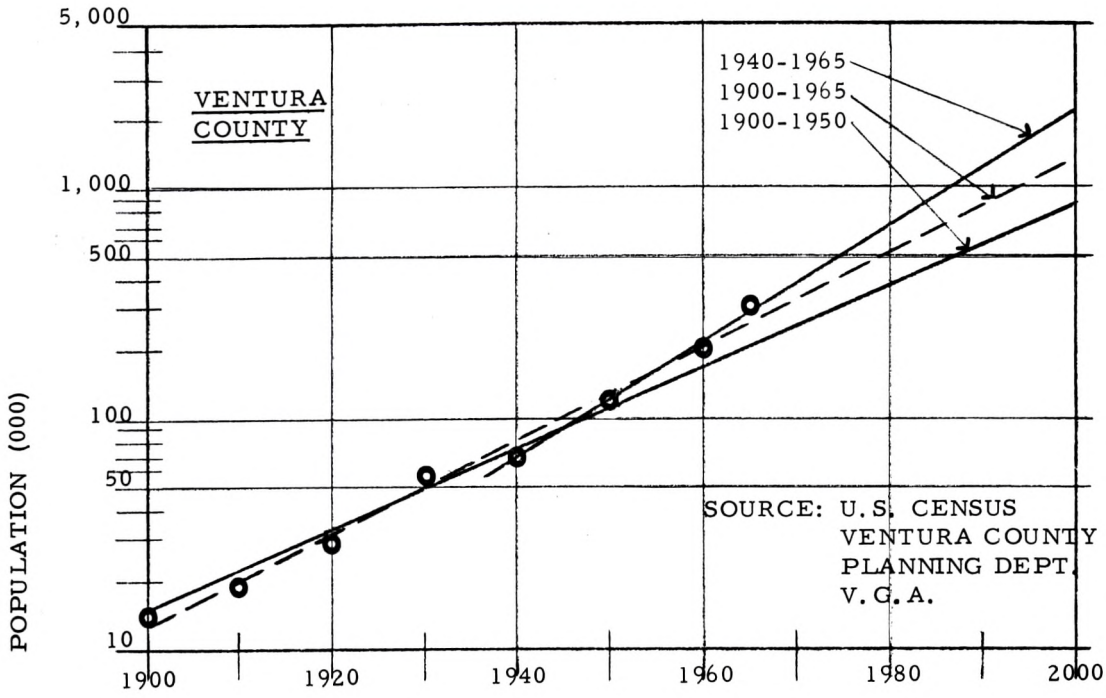
It is because we believe that Ventura County will grow more dynamically than previously imagined, that a similar urban area community will be studied to determine any existing parallel trends. Of particular relevance is Orange County, since it is also in the five-county study area and occupies a somewhat similar boundary and coastline relationship with Los Angeles.

3. Geography

Ventura County lies along the western border of Los Angeles County. The urbanized areas of each County are common to each other at three points: the San Fernando Valley - Thousand Oaks area connected by the Ventura Freeway; the San Fernando Valley-Simi Valley area connected by the Santa Susana Pass (and soon the Simi Freeway); and the Newhall, Saugus-Fillmore area connected by the Santa Clara River. These three connecting corridors thread through mountains and eventually reach the Oxnard Plain.

Ventura County contains 1,851 square miles, only 862 of which are in private ownership. Most of the public domain land lies in the Los Padres National Forest in the northern half of the County. Cross-hatched portions of the "Map of Economic Study Areas" define mountainous, and therefore probably undevelopable, regions. Based upon this map it has been calculated that approximately 18% of the County is capable of urbanization. This is, naturally, only a gross approximation of prime buildable land since some hillside land is prized for residences while some flat land is not prime because of swamps, river beds and the like*. The secondary study area, with about 14% of the total land in

* The Ventura County Planning Department identifies roughly 23% of the County as "Potential Urban Land".


VENTURA COUNTY
1940-1965
1900-1965
1900-1950
SOURCE: U.S. CENSUS
VENTURA COUNTY
PLANNING DEPT.
V.G.A.
POPULATION (000)
5,000
1,000
500
100
50
10
1900
1920
1940
1960
1980
2000

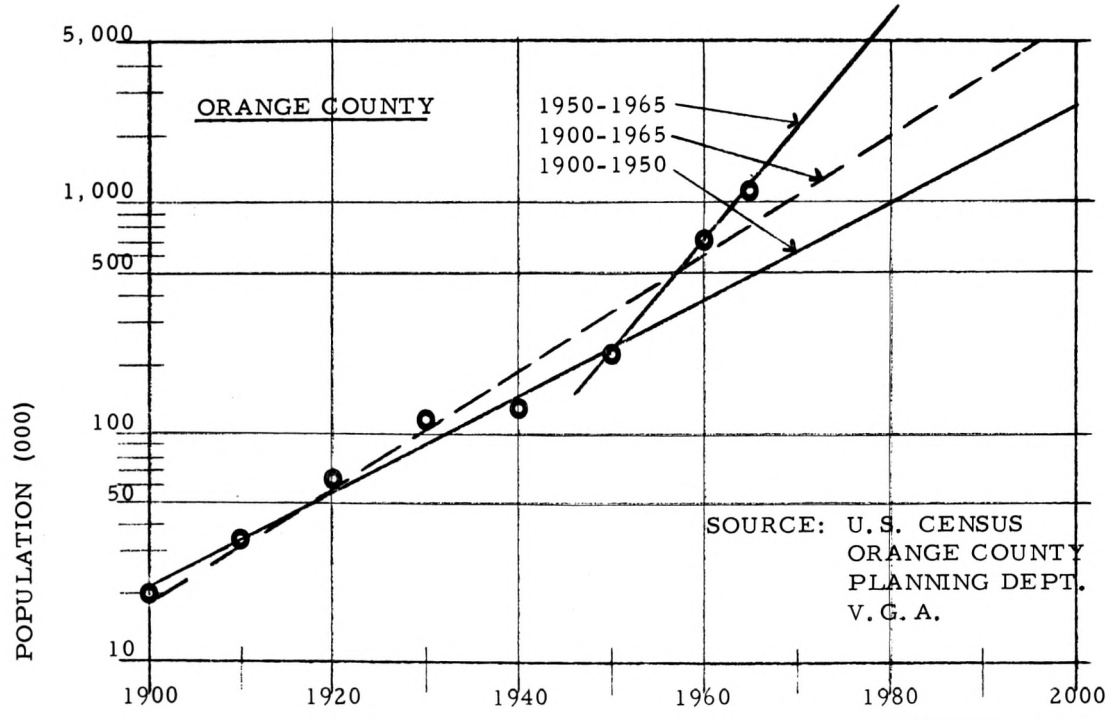

ORANGE COUNTY
1950-1965
1900-1965
1900-1950
SOURCE: U.S. CENSUS
ORANGE COUNTY
PLANNING DEPT.
V.G.A.
POPULATION (000)
5,000
1,000
500
100
50
10
1900
1920
1940
1960
1980
2000

FIGURE 2

TABLE 2

POPULATION DENSITY OF VARIOUS CITIES AND PLANNING AREAS

Area	Location	Population/Sq. Mi. * Apr. 1960	Oct. 1966	
Statistical Area 28	Oxnard-Port Hueneme	1,545	2,418	
Statistical Area 29	" " "	869	1,288	
Primary Study Area		934	1,367	
Statistical Area 2	Camarillo	453	1,056	
" " 31	Santa Paula	906	1,080	
" " 39	Ventura	1,584	2,390	
" " 40	"	1,991	2,285	
" " 42	"	5,294	6,266	
Secondary Study Area		835	1,194	
Statistical Area 9	Thousand Oaks	403	1,292	
" " 33	Simi	647	2,662	
" " 34	"	246	1,716	
Ventura County		230	389	
Orange County		1,050	1,808	
Los Angeles County		2,050	2,347	
Los Angeles City			5,913	(1965)
Long Beach			7,948	(1965)
Hermosa Beach		11,800	13,119	(1965)

Land area used for the study areas and statistical areas is estimate of amount of urbanizable land. Land area used for the counties is all land not in public domain. Land area used for the cities at the end of the list is unadjusted and is all the land contained in the City.

Source: Los Angeles Chamber of Commerce
California Information Almanac
Development Research Associates
Gruen Associates

the County, has about 54% of the urbanizable land in the County; therefore, about 68% of the Secondary Study Area is urbanizable. The Prime Study Area, with about 4.5% of the total land in the County, has about 23% of the urbanizable land in the County; about 94% of the Primary Study Area is urbanizable land. Virtually all of the remaining urbanizable land in the County lies in the three corridors to Los Angeles County.

A sizable length of the perimeter of the Primary Study Area lies along the coastline. Roughly 17 miles of the perimeter is on the coast, of which about 6.5 miles are contained in the Point Mugu Military Base. The Secondary Study Area has about another 5 miles of coastline.

Orange County and Ventura County have certain geographical features in common. Orange County lies on the eastern border of Los Angeles County and occupies the coastline below Los Angeles. The mountainous regions of Orange County, however, lie largely in the southern half of the County. A large part of the border with Los Angeles County falls under our definition of urbanizable land. Thus, a major impediment to population growth is non-existent along much of the common border. In addition, Orange County lies relatively close to Downtown Los Angeles, a strong business center, and to East Los Angeles, a major industrial center.

The path from Los Angeles to Ventura County is, on the other hand, relatively long and tortuous compared to Orange County. The industrial development of the San Fernando Valley has shortened this path and will stimulate further growth in the eastern portions of Ventura County. As such growth occurs, population will expand toward the Oxnard Plain.

Speculation might be warranted that population will at the same time jump strongly on the Oxnard Plain and push toward Los Angeles. Several reasons might be found for this

speculation. First, the growth of the megalopolis will not measurably abate during the planning period. The prime direction of growth will be along the coastal plains rather than beyond the mountains, due to the climate and temperature, the attraction of the ocean, and the reliance of commerce and transportation on the ocean. Secondly, large populations tend to attract industry and commerce. In dynamic growth areas, the growth of industry and population are complementary and reinforce each other, further increasing their rate of growth. The growth in the Oxnard Plain has been moderate, while the eastern County growth has recently been rapid. Although much of the eastern population works in Los Angeles County, it is logical to project industrial growth in Eastern Ventura County and on the eastern portion of the Oxnard Plain in the near future. Thirdly, the Oxnard Plain is about the largest single region of urbanizable land in the sphere of the Los Angeles megalopolis which has a relatively low density of population. There are strong concentrations of population and vast undeveloped areas. Because land is relatively inexpensive, this is ideal for strong industrial and accompanying residential development, particularly when stronger transportation links with Los Angeles County are completed. In addition, the coastal area allows the possibility of shipping transportation.

4. Population Projections

Many agencies have made population projections for Ventura County in the last decade. As time progresses since each of these projections was made, one noticeable factor becomes clear. Each projection has been consistently short of population level obtained. Table I shows several of these population estimates. The highest of the group, made in 1959, is for a population of 288,000 in 1970; and for 452,000 in 1980. The 1970 projection was achieved in 1964 and all the 1980 projection should be achieved next year. The 1962 through 1965 projections, exclusive of the Ventura County Planning Department, had a high of 448,000 in 1970. This

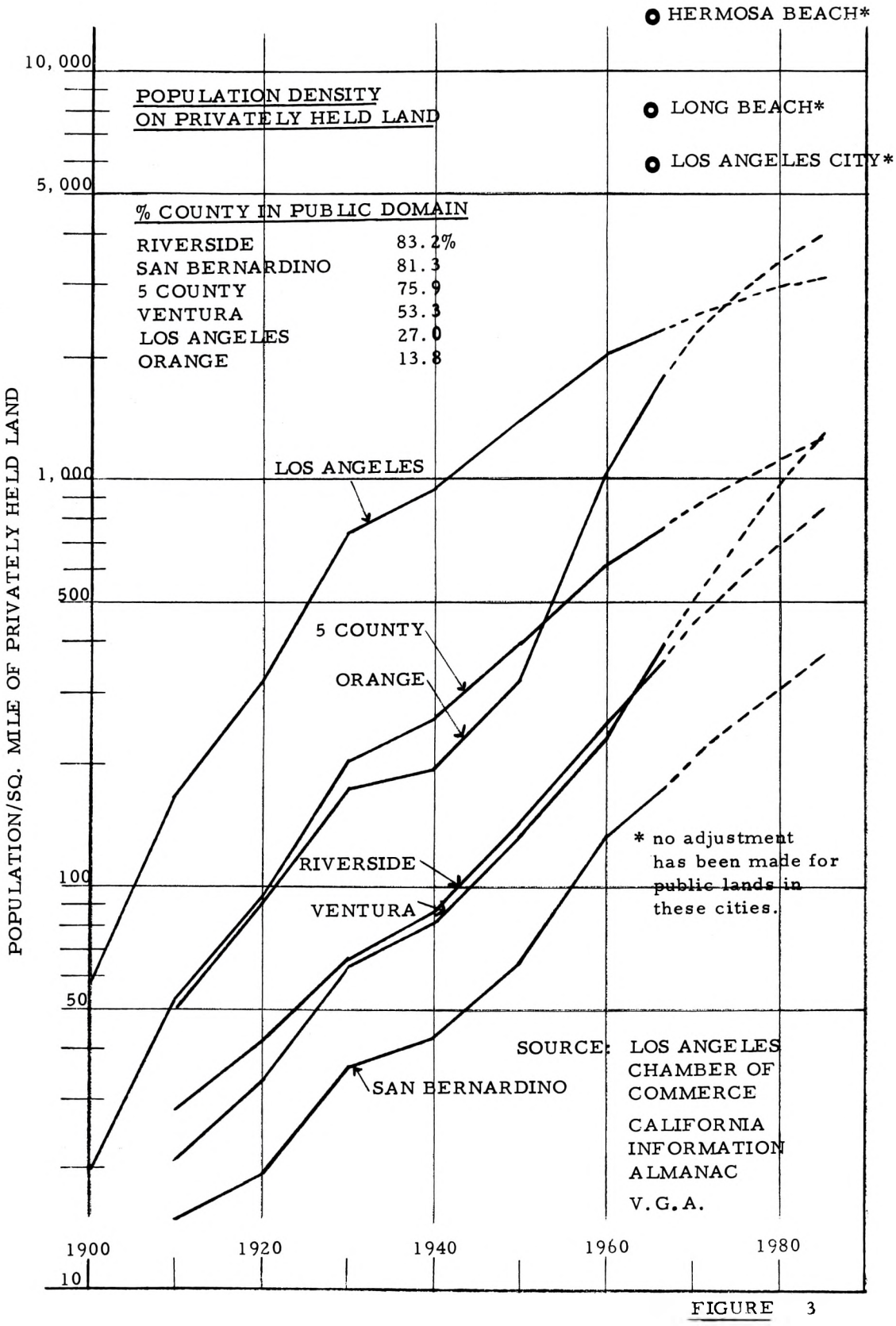

HERMOSA BEACH*
LONG BEACH*
LOS ANGELES CITY*
POPULATION DENSITY
ON PRIVATELY HELD LAND
% COUNTY IN PUBLIC DOMAIN
RIVERSIDE 83.2%
SAN BERNARDINO 81.3
5 COUNTY 75.9
VENTURA 53.3
LOS ANGELES 27.0
ORANGE 13.8
POPULATION/SQ. MILE OF PRIVATELY HELD LAND
10,000
5,000
1,000
500
100
50
10
LOS ANGELES
5 COUNTY
ORANGE
RIVERSIDE
VENTURA
SAN BERNARDINO
* no adjustment has been made for public lands in these cities.
SOURCE: LOS ANGELES CHAMBER OF COMMERCE
CALIFORNIA INFORMATION ALMANAC
V.G.A.
1900
1920
1940
1960
1980

FIGURE 3

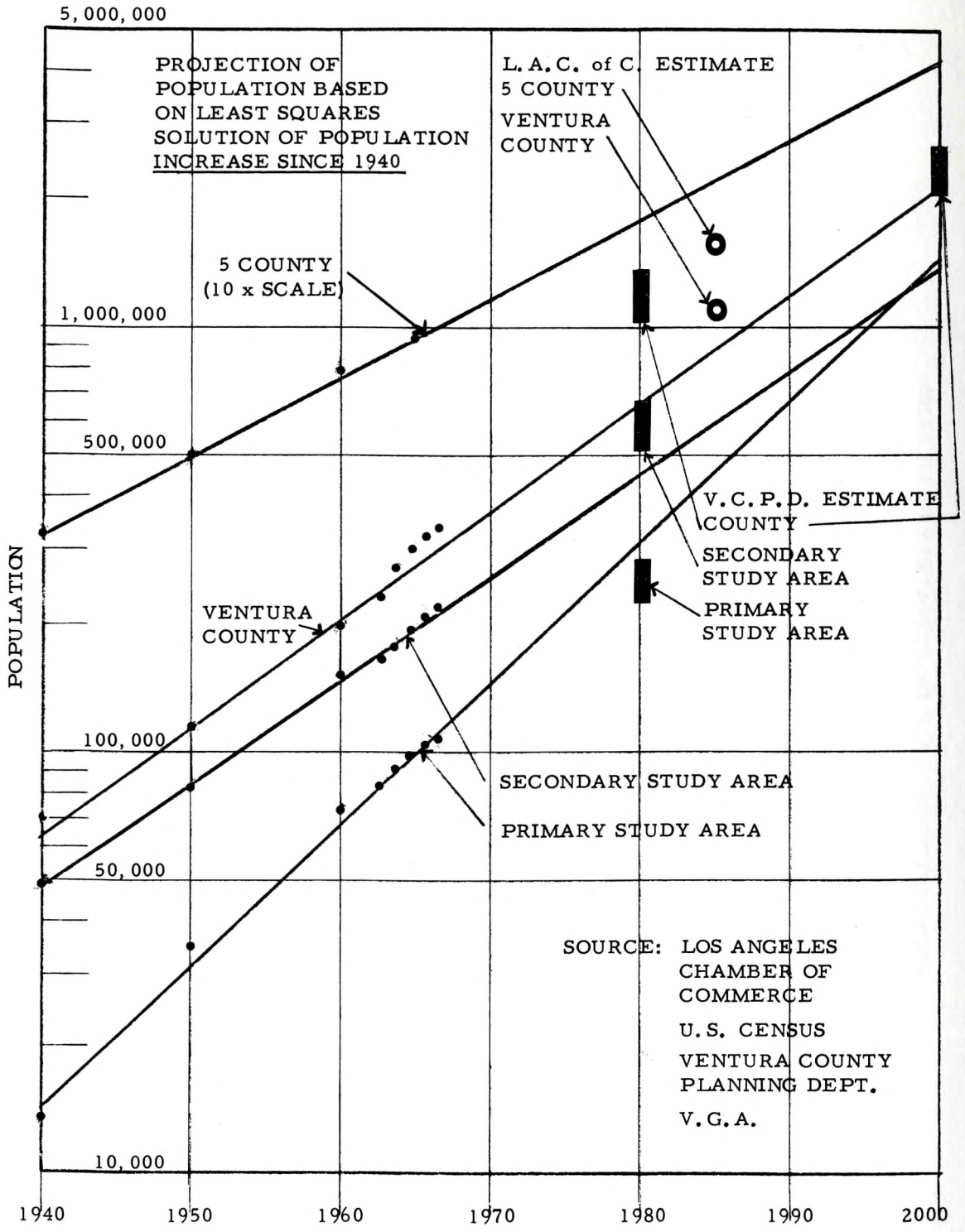

5,000,000
1,000,000
500,000
100,000
50,000
10,000
POPULATION
1940
1950
1960
1970
1980
1990
2000
PROJECTION OF POPULATION BASED ON LEAST SQUARES SOLUTION OF POPULATION INCREASE SINCE 1940
L.A.C. of C. ESTIMATE
5 COUNTY
VENTURA COUNTY
5 COUNTY (10 x SCALE)
V.C.P.D. ESTIMATE COUNTY
SECONDARY STUDY AREA
PRIMARY STUDY AREA
VENTURA COUNTY
SECONDARY STUDY AREA
PRIMARY STUDY AREA
SOURCE: LOS ANGELES CHAMBER OF COMMERCE
U.S. CENSUS
VENTURA COUNTY PLANNING DEPT.
V.G.A.

FIGURE 4

should also be achieved next year, two years ahead of prediction even though the projection was made a few short years ago.

The latest Ventura County Planning Department estimate appears more reasonable than past projections, but past performance should be taken as a warning. For example, the planning letter of the Ventura County Planning Department for January 1966, includes a full explanation of the latest population projection. In that explanation the estimate of potential urban land in the County is given, and an absolute maximum population of about 3 million is given for that amount of land. Based on this information, the upper level of projection given in this report shows most of that population being achieved by the year 2000. The land density utilized in that population upper limit is based on 1965 standards and is roughly comparable to the present day population densities of Long Beach City or Los Angeles City. The effect of increasing amounts of multiple housing will have great impact on that upper limit estimate.

Since previous projections have been so low, it would be wise to examine some of the rough influences on a population projection. The most elementary method available to a demographer in predicting population growth is to plot known previous population (on a semi-log basis) and project future growth by drawing a straight line which is the least squares solution to the plot of former populations. The assumptions made for this method are as follows:

a. Natural rate of increase, influenced by birth and death rates, is a constant; thus, population already in the area is regenerated at a constant rate.

b. In-migration is a constant percentage of population already in the area.

Depending on the area studied, either assumption may be controlling on the slope of the straight line. With little or

no in-migration, such as, typically, a farming community in the Midwest, natural increase controls and population rises slowly with each expanding generation. In an area like Southern California, however, in-migration has strongly controlled population growth, and the straight line is more steep. Of course, some areas may have a negative in-migration (Boston) which counterbalances or overweighs natural increase and the straight line is flat or decreasing.

As stated, a straight line projection is crude. When natural increase has controlled the growth rate, changes in natural increase (such as has occurred in the U.S. in the last ten years), or a change of in-migration will drastically influence the slope of the straight line. Where in-migration controls, changes in natural increase generally have little effect on the slope. However, a change in the rate of in-migration provides serious fluctuations to the projection.

Study areas considered in this report are strongly in-migration controlled. As seen in Figure 1, in-migration in Ventura County has had a larger effect on population increase than natural increase since at least 1940. In recent years in-migration has strongly controlled total increase. Figure 2 shows the populations of Orange and Ventura Counties plotted from 1900 to the present.

The overall straight line projection can be plotted, but certain portions of each plot lend themselves to smaller straight-line segment projections; Orange County from 1900 to 1950, Orange County from 1940 to 1965, Ventura County from 1900 to 1960, and Ventura County from 1940 to 1965. The break between lines in Orange County is severe, and is easily related to the strong in-migration in that County. The break between lines in Ventura County is not so strong but a range of projections is easily seen in the Ventura County lines. In general, however, because of the activity in the Los Angeles megalopolis since 1940 (and difficulty

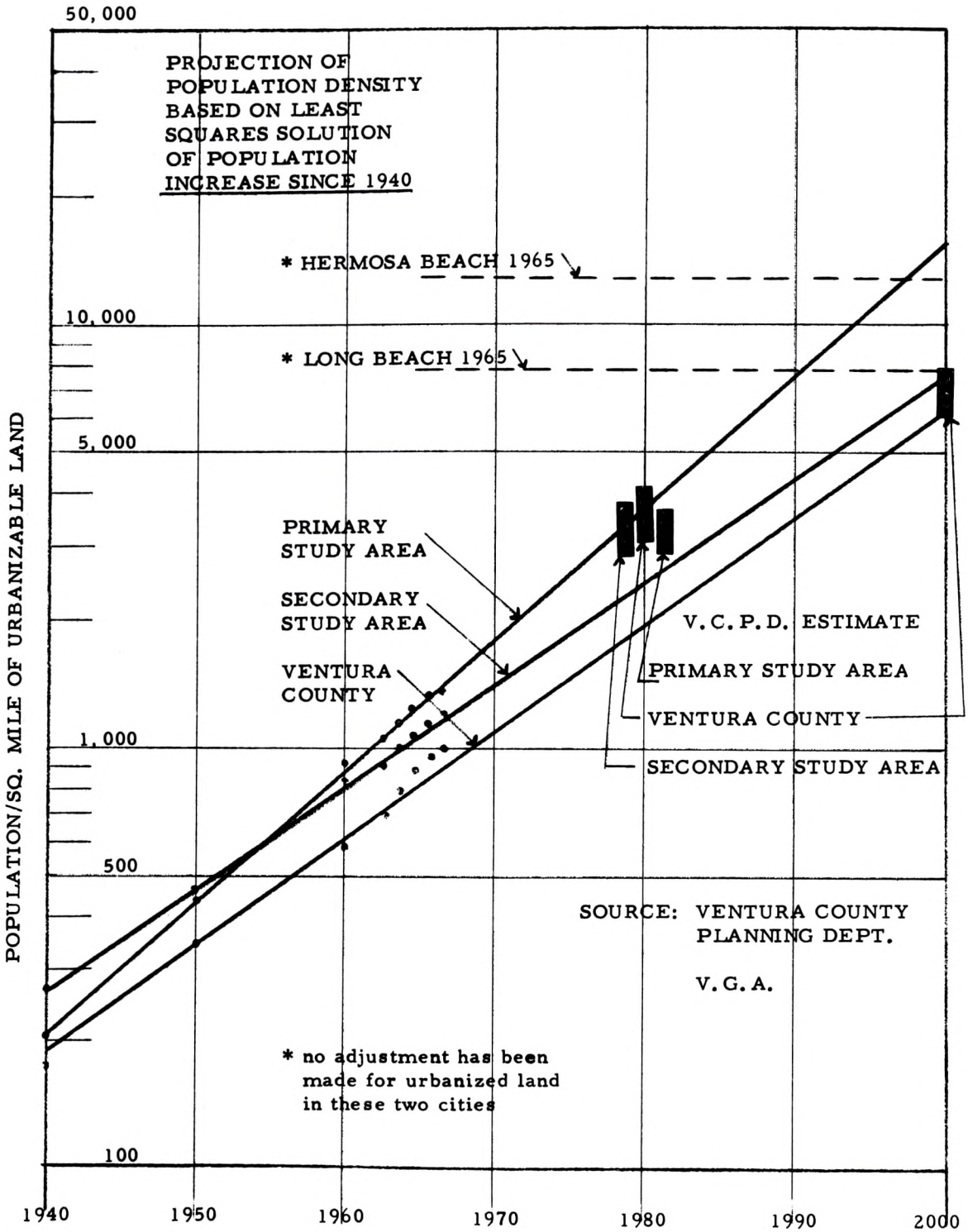
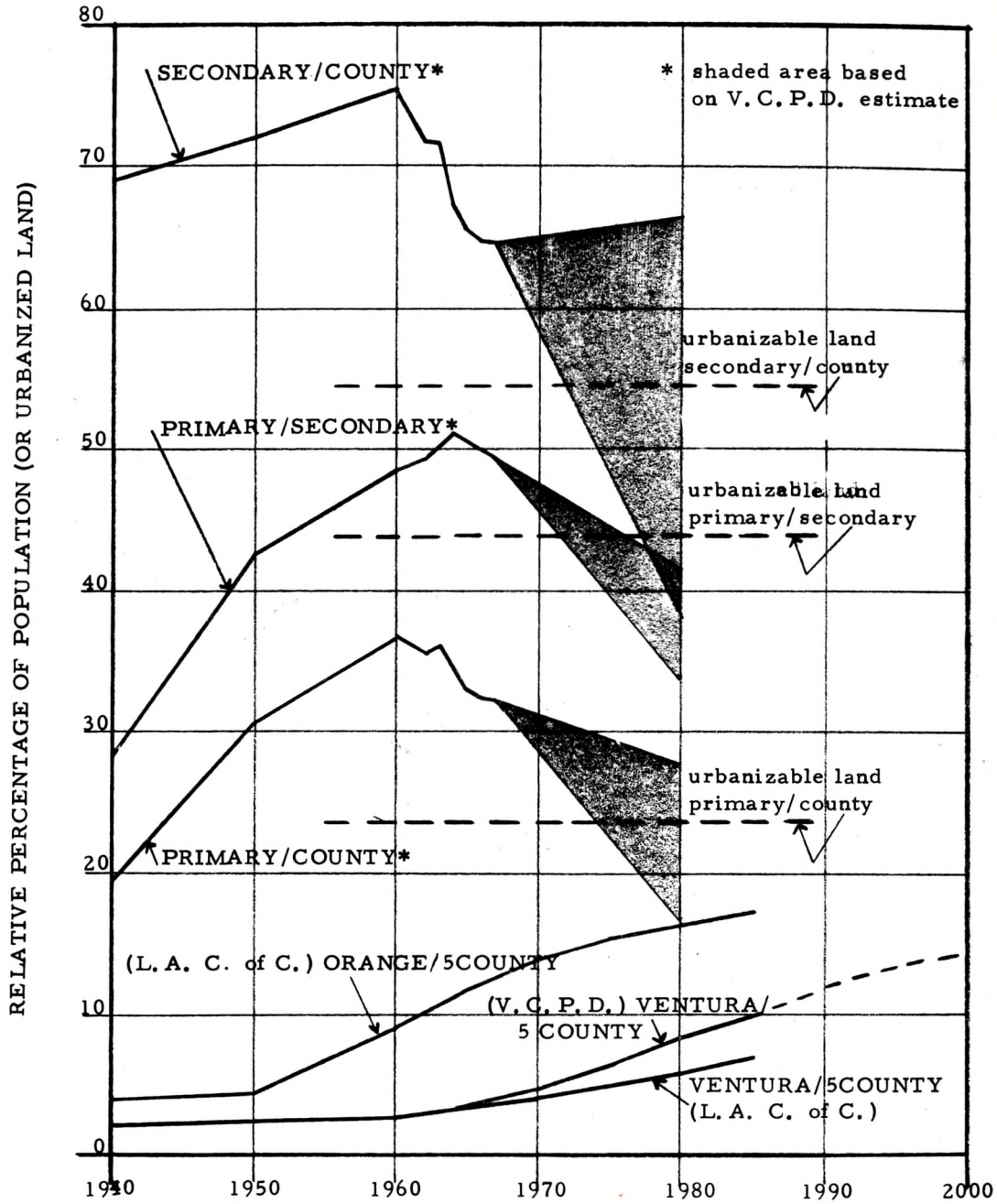

50,000
10,000
5,000
1,000
500
100
POPULATION/SQ. MILE OF URBANIZABLE LAND
PROJECTION OF POPULATION DENSITY BASED ON LEAST SQUARES SOLUTION OF POPULATION INCREASE SINCE 1940
* HERMOSA BEACH 1965
* LONG BEACH 1965
PRIMARY STUDY AREA
SECONDARY STUDY AREA
VENTURA COUNTY
V.C.P.D. ESTIMATE
PRIMARY STUDY AREA
VENTURA COUNTY
SECONDARY STUDY AREA
SOURCE: VENTURA COUNTY PLANNING DEPT.
V.G.A.
* no adjustment has been made for urbanized land in these two cities
1940
1950
1960
1970
1980
1990
2000

FIGURE 5



SOURCE: LOS ANGELES CHAMBER OF COMMERCE
VENTURA COUNTY PLANNING DEPT.
V. G. A.

FIGURE 6

in obtaining data for population in smaller geographical entities than counties previous to that date), the later plots in this report will exclude the years before 1940.

Re-examining the projections in Table I in light of the lines drawn in Figure 2, the reasons for the low projections become clear. The 1900-1950 line in Figure 2 shows a population in 1970 of 260,000; and 1980 of 380,000. This compares somewhat favorably with the projections made in 1959 in Table 1. The later projections in Table 1 reflect the 1960 Census, which showed a large upswing in population. The latest Ventura County projection far exceeds the 1940-1965 line for most of its length, and reflects a feeling that in-migration will become an even stronger influence on population in the immediate future. It is quite probable that the situation in Ventura County will approach that of Orange County, where recent population increase is advancing at a much faster rate than historical increase. The Ventura County Planning Department, in fact, has based its latest projection on the assumption that Ventura County would grow between the rates of Orange County and Santa Clara County.

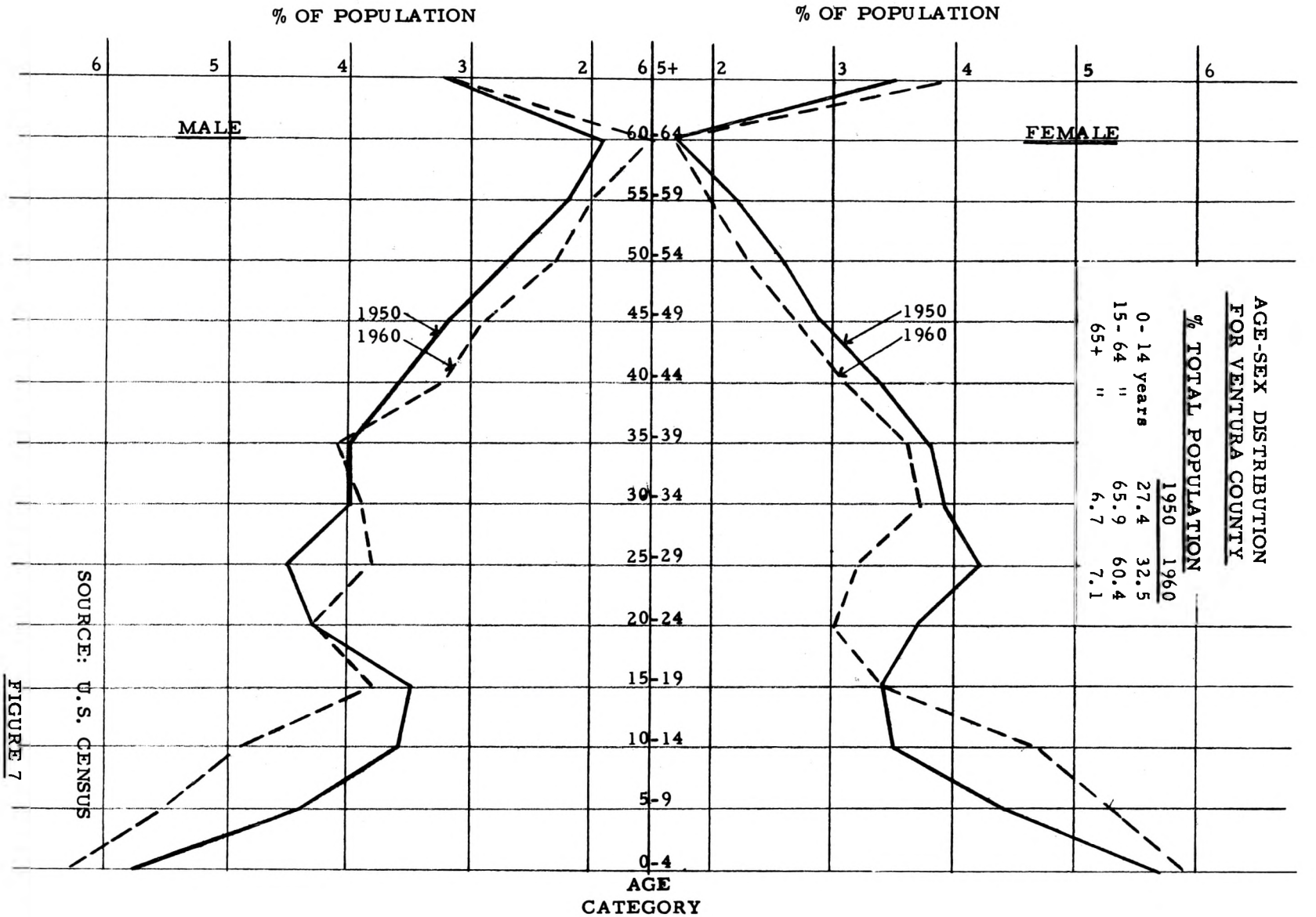
A limiting factor when in-migration is such a strong determinant of the population growth in an area is the amount of buildable land in that area. The density of population supported on that land becomes highly important. As already noted, the Ventura County Planning Department in essence has made an assumption as to what the ultimate density will be in the County. Table 2 lists population densities for various parts of Ventura County, other counties in the area, and some high-density communities in the Los Angeles area. Hermosa Beach is one of the most dense areas in the state. It presently is about 70 percent more dense than Long Beach, an area which is presently somewhat more dense than the ultimate predicted for Ventura County. Even Hermosa Beach had a 10 percent increase in density over the last five years. Ventura County can be seen to be much less dense than Orange County or Los Angeles County.

While Orange County is quickly approaching the density of Los Angeles County, the Thousand Oaks and Simi areas in Ventura County have very recently become some of the more dense parts of the County; but far more population can certainly be held in those areas. A portion of the City of Ventura already has relatively high density and is quickly approaching that of Long Beach City. The primary and secondary study areas have relatively low densities at present and are thus prime for future population growth.

Figure 3 is a plot of population density on non-public land in each of the five counties around Los Angeles, both for past population levels and for the estimates of the Los Angeles Chamber of Commerce. It can be seen that Orange County will soon pass the density of Los Angeles County and will be approaching the present density of Los Angeles City. Ventura County, now approximately the same as Riverside County, will soon greatly surpass Riverside County in population density, and will meet the density of the total five-county region. Ventura County will, however, still be considerably lower than either Los Angeles County or Orange County.

The steepness of the Orange County curve from 1950 to the present should be recognized. It is quite possible that in the next few years Ventura County could grow just as fast as Orange County has in the last 15 or 20 years. In fact, Ventura County seems approximately 15 years behind and closely parallel with Orange County.

In light of the density data given, it would be well to study straight line projections in more detail in relation to the projections of various agencies. Figure 4 shows straight line projections for the four study areas concerned. The Los Angeles Chamber of Commerce estimates that for 1985 the five-county area will have a population of 15.5 million. The straight line projections shown here would indicate that a population of 22 million could be attained in



SOURCE: U.S. CENSUS

FIGURE 7

TABLE 3

POPULATION PROJECTIONS - GA

	1940 Census	1950 Census	1960 Census	Oct. 1966 Estimate	1985 Projection	2000 Projection	Urbanizable Land
County Population	69,700	114,600	199,100	335,900	1,300,000 1,700,000	1,900,000 2,500,000	
Secondary Study Area	48,200	82,600	150,200	217,000	800,000 1,100,000	1,100,000 1,600,000	
Primary Study Area	13,600	35,000	73,100	107,300	380,000 460,000	550,000 730,000	
Secondary/County	69%	72%	76%	65%	60-65%	56-60%	54%
Primary/County	20%	30%	37%	32%	27-30%	24-27%	23%
Primary/Secondary	28%	42%	49%	49%	45-48%	43-45%	43%

the five-county area. The density curve of Figure 3 for the five-county area shows a flattening out of the population density by 1985. In light of the low densities of three of the five counties, the Chamber of Commerce estimate may be too low. A large part of any increased population growth in the five-county area would be to the benefit of the other counties than Los Angeles, including Ventura County.

The straight line projection in Figure 4 for Ventura County is lower in 1980 and 1985 than both the Ventura County Planning Department estimate and the Los Angeles Chamber of Commerce estimate. However, by the year 2000 the straight line projection coincides fairly well with the Ventura County Planning Department estimate.

Of greatest interest in this study is the allocation of the population projection for each of the primary and secondary study areas. The fact that the lines for each of these areas coincides by about 1995 shows the crudity of this method of projection. However, some value can be made of these projections. The Ventura County Planning Department currently feels that the Primary Study Area will grow at a much slower rate than it has in the past, whereas the Secondary Study Area will grow much faster. More illuminating, perhaps, is when the straight line projections are taken on a density basis and compared with the Ventura County Planning Department estimates of population, as in Figure 5. On this basis, in 1985 the density for both the Secondary and the Primary Areas are virtually identical, while the density for the County as a whole is also similar but slightly higher. This seems somewhat antagonistic to real life experience. A larger area of land seldom has a population density greater than the smaller area of land which holds the traditional population core. Normal experience would indicate that population density intensifies in original population cores while the area around the core develops at a smaller population density. It would seem, therefore, that the hierarchy of densities shown in the straight lines of Figure 5 would remain even though projected levels might not hold true.

Figure 6 exhibits ratios of population of the various study areas to each other. According to the Los Angeles Chamber of Commerce, Ventura County will approximately double its percentage of the five-county area between 1960 and 1985. Its rate of growth compared to the five-county area is much smaller than Orange County's has been. However, taking the Ventura County Planning Department estimate of population and the Los Angeles Chamber of Commerce estimate of five-county population, the Ventura County growth rate compares favorably with the Orange County rate of an earlier year. By 1985 Ventura County should contain 10 percent of the five-county area on this basis. Extending the Los Angeles Chamber of Commerce five-county estimate to the year 2000 and applying the Ventura County Planning Department estimate to that, a projection of 14 to 15 percent of the five-county population is given to Ventura County. Orange County, with only about three-quarters as much non-publicly owned land as Ventura County, will achieve that percentage this year.

The population growth patterns within the County can be seen by the upper three curves of Figure 6. The percentage of population in the secondary study area as compared to the whole County has fallen below its 1940 level and well below its 1960 level. The percentage in the Primary Area compared to the County is also below the 1960 level but is still above the 1940 and 1950 levels. The percentage between Primary and Secondary Study Areas has remained growing throughout the last 25 years. The decrease in the percentages of the Primary and Secondary Study Areas as compared to the County over the last six years is easily explained by the rapid growth of the Thousand Oaks and Simi areas. However, as the growth of these areas continues, and the population on the Oxnard Plain also continues to grow, the impact of the primary and secondary study areas on the County may be expected to increase again.

Referring to Figure 5, if the population density estimate for the County as a whole stands at an average of 3,500

people per square mile of urbanizable land in 1980, it seems reasonable that the population density of the Secondary Area might be about 4,300 people per square mile of urbanizable land; and for the Primary Area, about 4,900 people per square mile of urbanizable land. In the year 2000, based on a County density of 6,900 people per square mile of urbanizable land, it would seem that the Secondary Area could support about 7,500 people, and the Primary Area, about 8,200 people per square mile of urbanizable land. Table 3 shows the GA population estimates for 1985 and 2000. Approximately 54 percent of the urbanizable land in the County is contained in the Secondary Study Area, while about 23 percent of the urbanizable land in the County is contained in the Primary Study Area. The GA estimates tend to be approaching the land estimates as a limit.

The graph "Projection of Population" in the front of this report shows the GA projection of population for the Primary Study Area and lists the population projected at five-year intervals. In addition, the percentage increase over each five-year period is graphed. The latter chart shows that population growth rate in the Primary Study Area will either flatten out over the next decade and then resume its downward trend, or will sharply increase for the next decade before decreasing any further.

5. Characteristics of the Population

From 1950 to 1960 the age-sex composition of the population of Ventura County underwent a major change. Figure 7 shows a definite shift to a younger population, particularly in the male category. There were 51.57% males out of the County population (compared to 49.86% in California and 49.26% in the U.S.). This is generally explained by a large military population in the County, but Figure 7 also shows greater percentages of males under 15 years of age. The greatest difference between males and females lies in the 15-39 age groups where males were 19.9% of the population and females 16.9% in 1960. This compares to 20.3% males and 19.0% females in 1950.

TABLE 4

AGE DISTRIBUTION BY PERCENT

Age	Year	Ventura County	Orange County	California	United States
Under 20	1950	34.3%	32.5%	30.5%	33.9%
	1960	39.8%	42.1%	37.2%	38.5%
20 - 39	1950	32.5	30.3	32.6	30.9
	1960	29.5	29.8	27.5	25.7
40 - 64	1950	26.4	27.5	28.5	27.1
	1960	23.6	21.5	26.5	26.6
65 +	1950	6.8	9.7	8.4	8.1
	1960	7.1	6.6	8.8	9.2

Source: U. S. Census

AGE-SEX DISTRIBUTION
FOR ORANGE COUNTY
% TOTAL POPULATION
1960 1960
0-14 years 26.0 35.8
15-64 " 65.0 58.2
65+ " 9.0 6.0
FEMALE
MALE
% OF POPULATION
% OF POPULATION
1950
1960
1950
1960
65+
60-64
55-59
50-54
45-49
40-44
35-39
30-34
25-29
20-24
15-19
10-14
5-9
0-4
AGE CATEGORY
2
3
4
5
6
SOURCE: U.S. CENSUS

FIGURE 8

If Ventura County is compared to Orange County as a measure of an extremely rapidly growing community, some vast differences can be seen. Figure 8 shows extremely wide variations between 1950 and 1960 in Orange County. The wide difference in the under 15 years group between 1950 and 1960 seen in Ventura County is far more exaggerated in Orange County. Orange County had a surprising resurgence in the 35-39 age group, and then a tremendous fall-off in the older age groups. The Orange County pattern would seem to conform with an extremely large growth of families with parents between 25 and 44 years of age and more than two children per family under 15 years of age. The overall balance between the sexes in Orange County is similar to the State and Country, with 49.60% males.

Table 4 gives a further comparative breakdown of age groups. It shows Ventura County to have more under 20 population than the norm, but less than Orange County. The over 65 group has similar trend characteristics. Orange County has far less than the norm, while Ventura also has less than the norm, but not as few as Orange.

If any conclusions could safely be drawn from this information, they would be that growth of the younger age groups and decrease in the older age groups is proportionate to rate of growth in a Southern California community.

Figure 9 is a chart of age-sex composition by study areas. Very little difference can be seen between the County and the Secondary Study Area. The Primary Study Area does show a sizable increase in the under 15 years group (36.2% compared to 32.5% for the County) and a very large increase in the males between 15 and 44. This reflects the fact that much of the County's military population lies in the Primary Study Area. Also reflecting the military population in the Primary Study Area is the fact that 53.96% of the population is male, compared to 51.89% and 51.57% for the Secondary Study Area and County respectively. Noticeable also is a large fall-off in percentage of the over 45 years age groups.

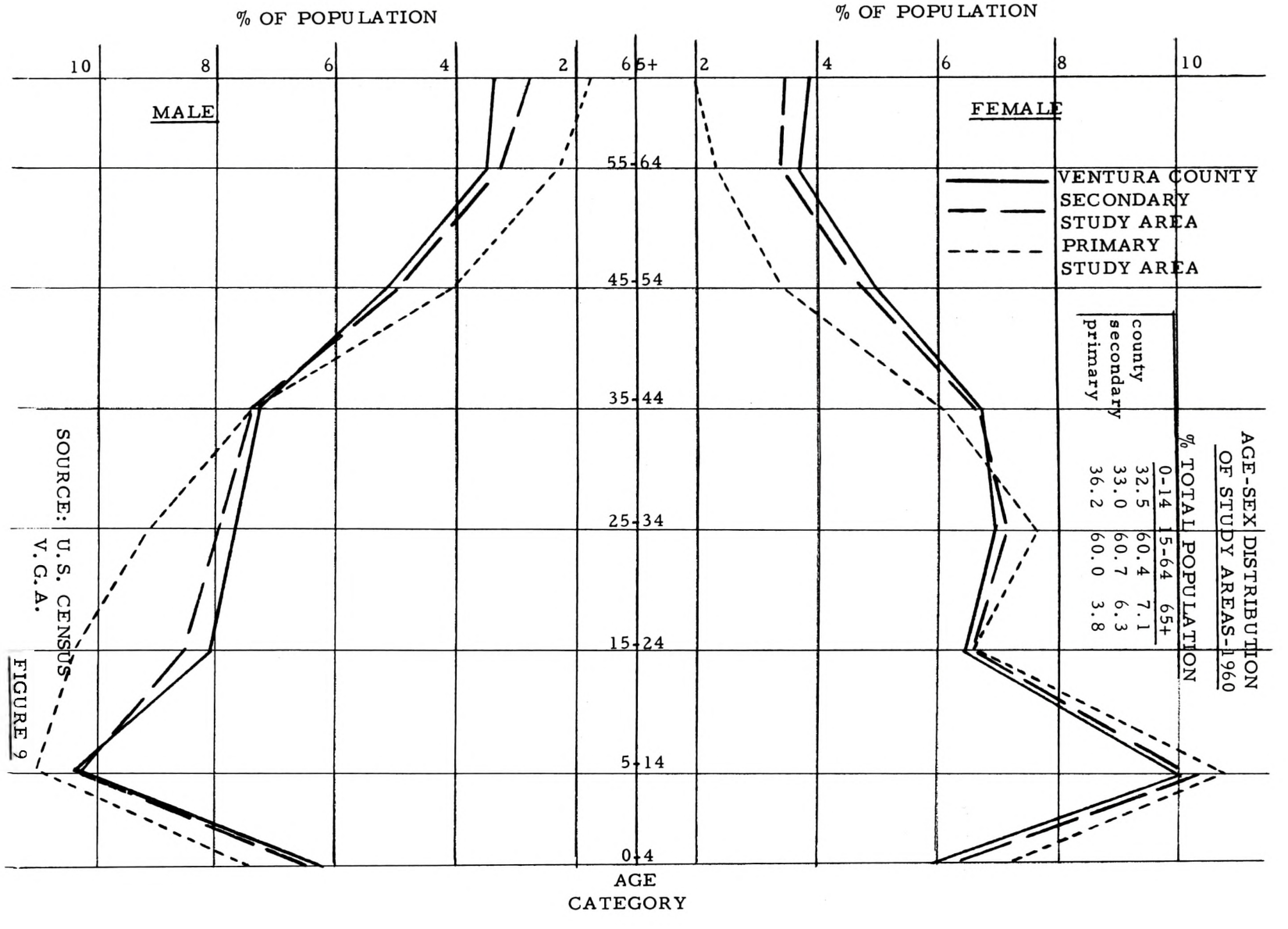

% OF POPULATION
10
8
6
4
2
MALE
65+
55-64
45-54
35-44
25-34
15-24
5-14
0-4
AGE CATEGORY
% OF POPULATION
2
4
6
8
10
FEMALE
VENTURA COUNTY
SECONDARY STUDY AREA
PRIMARY STUDY AREA
AGE-SEX DISTRIBUTION OF STUDY AREAS-1960
% TOTAL POPULATION
0-14 15-64 65+
county 32.5 60.4 7.1
secondary 33.0 60.7 6.3
primary 36.2 60.0 3.8
SOURCE: U.S. CENSUS
V.G.A.

FIGURE 9

TABLE 5

POPULATION BY RACE

	White	Negro	Other
County	96.7	1.8	1.5
Secondary	96.1	2.1	1.8
Primary	93.9	3.1	3.0

Source: U. S. Census

TABLE 6

MEDIAN SCHOOL YEARS COMPLETED - COUNTY

	Males 25 Years +	Females 25 Years +	Total 25 Years +
1950	10.1	11.3	10.7
1960	11.2	11.9	11.5

Source: U. S. Census

In projecting the age-sex distribution for the Primary Study Area for the next several decades, the trends of population growth projected in the previous section of this report were analyzed in light of the changes which have occurred in Orange County distribution as representative of a rapidly growing community, and in relation to the projection of age-sex distribution for the State as made by the State Department of Finance. Applying these situations to the particular problem of the Primary Study Area, the following factors influenced the GA projection:

a. The impact of the military population will decrease, but will remain significant.

b. Rapidly increasing population exhibits increases in the categories of children and percentage adults, while percentages of persons over 45 years are decreased.

c. Maturing population growth yields a leveling out of all categories, primarily decreasing percentages of children and increasing percentages of persons over 45. The chart, "Projection of Age-Sex Distribution" in the front of this report shows the age-sex distribution for the Primary Area for the years 1985 and 2000 as compared to the present distribution.

Table 5 and 6 show some of the other characteristics of the population of the County in 1960. Table 5 shows that most of the County's small racial minority population lies mainly in the Primary Study Area. Table 6 shows an increase of almost 10% in median school years completed compared to 1950 for population 25 years and older. It would be expected that the recent population increases in Eastern Ventura County have brought technical personnel with much higher education levels due to the type of employment prevalent in Eastern Ventura County and the San Fernando Valley. As this type of industry moves into Ventura County in greater numbers, even higher educational levels can be expected. Orange County, for instance, had a median educational level in 1960

of 12.2 years, compared with 11.5 for Ventura County. The table on the chart, "Per Capita and Household Income - Educational Level", in the front of this report lists projected educational levels for the Primary Study Area. As educational levels in the State as a whole increase, and as technological industries move into the area, the level of education for persons over 25 years of age should rise to about 14.2 years of schooling in the year 2000.

Based upon projections of age characteristics and educational level of the population, we can project area requirements for schools for the General Plan (see Table 6a).

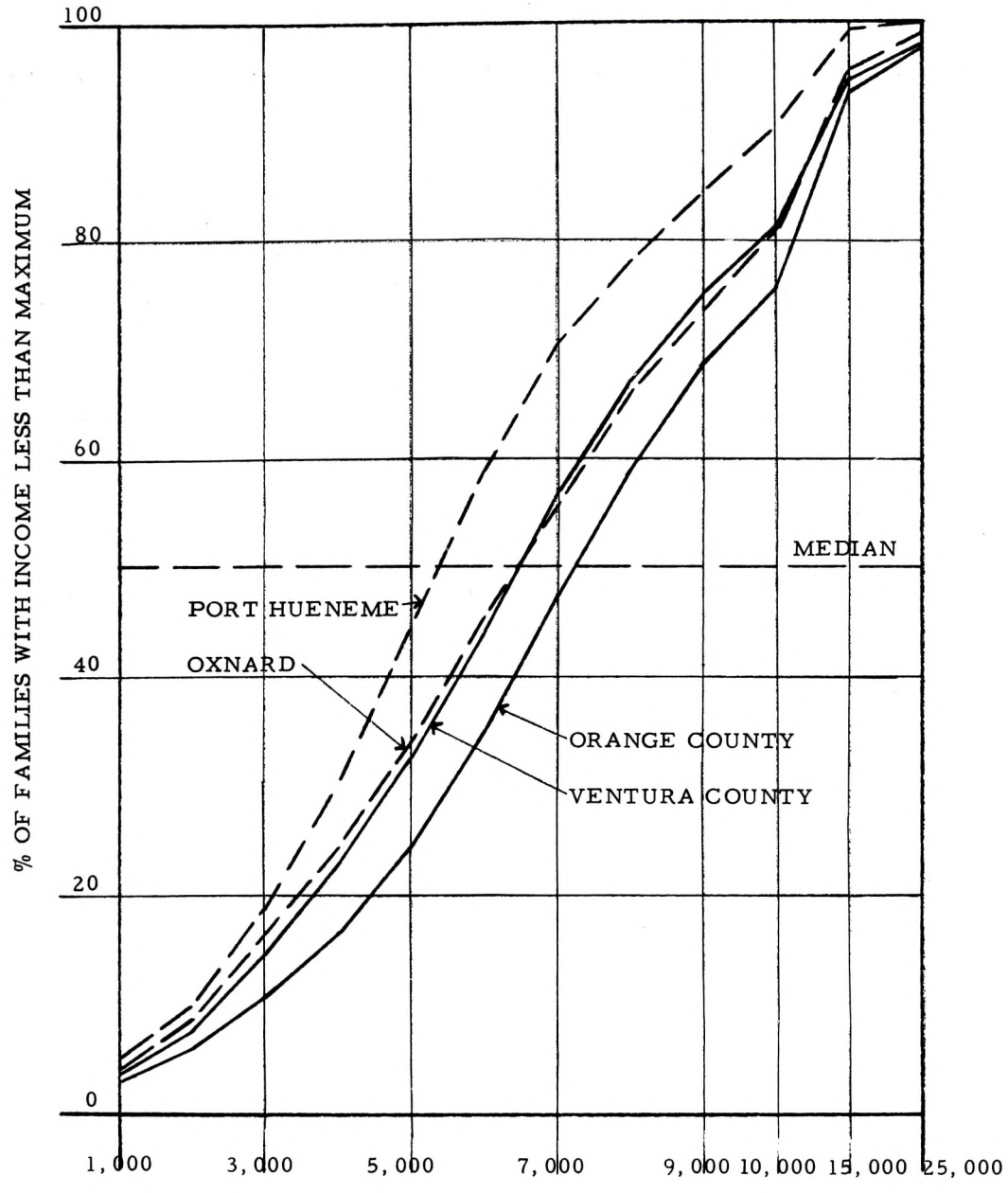
A. Elementary - State Department of Education recommended enrollment/elementary school is 700 pupils. This should serve a community within a 3/4-mile radius of the school. Gross site size is recommended at an average of 11 acres. These standards are easily attainable in undeveloped areas, but the criterion may prove too expensive in more developed areas.

B. Junior High - State Department of Education recommended enrollment/junior high is 800 students. This should serve a community within a 1-mile radius of the school. Gross site size is recommended at an average of 23 acres. Los Angeles City, as an example of a more developed community, is facing an enrollment of 1,600 to 2,000 students per school.

C. Senior High - State Department of Education recommended enrollment per senior high is 1,200 to 1,500 students. This should serve a community within a 2-mile radius of the school. Gross site size is recommended at an average of 43 acres. Los Angeles City currently enroles 2,000 to 3,500 students per school.

Family income, as found in the 1960 Census, is shown in Table 7 for Orange and Ventura Counties, and for the two cities contained

DISTRIBUTION OF
FAMILY INCOME (1959)



SOURCE: U.S. CENSUS

FIGURE 10

TABLE 6a

AREA REQUIREMENTS FOR SCHOOLS - PRIMARY STUDY AREA

	Numbers of Students	Students / School	Number of Schools	Size of School (acres)	Total Acreage
Elementary					
1985	57 - 69,000	700	81 - 98	11	900 - 1,100
2000	74 - 98,000	800	92 - 122	10	950 - 1,250
Junior High					
1985	24 - 31,500	1,200	20.5 - 26	22	450 - 600
2000	34 - 46,000	1,400	24.5 - 33	20	500 - 700
Senior High					
1985	21 - 25,500	1,500	14 - 17	40	600 - 700
2000	27 - 36,500	2,000	14 - 19	40	600 - 800
Junior College					
1985			1	100	100
2000			3		250

Source: Gruen Associates

within the Primary Study Area. While median income for Ventura County and Oxnard were higher than the national median, they were below California and far below Orange and Los Angeles Counties. Figure 10 is a graph of family income distribution for the same areas. Orange County, its curve placed well to the right of Ventura County's, shows a far larger percentage of families in the middle income brackets. Ventura County and Oxnard are virtually similar, while Port Hueneme is placed far to the left, exhibiting most family income in the lower income brackets.

While median family income is somewhat indicative of economic health and buying power of an area, per capita income is a more useful indicator. The total of personal income within an area is not represented by family income, and median family income is lower than average family income. For instance, the average family income for Ventura County in 1959 was roughly $7,200 compared to a median of $6,466. For this reason, this report will be concerned only with per capita income and household income (defined as total personal income divided by total dwelling units).

Figure 11 shows per capita income for the five-county region for the last 17 years and as projected to 1985 by the Los Angeles Chamber of Commerce. Per capita income has been much higher for the five-county region than for Ventura County, as might be expected from the data of Table 7. The five-county projection is at a compounded rate of increase of 2.6% a year (dotted line). National per capita income is generally assumed to compound at about 3% a year, but because the five-county region is already well above the national average, it was perhaps felt a lower rate was warranted. In fact, however, the rate over the last 10 years for the five-county region has been 2.9 to 3.0%. Ventura County, on the other hand, has had a rate of increase only slightly above 2.0% over the last 10 years. Extending the Ventura County per capita income at 2% per year yields a per capita income in the year 2000

about equal to that projected for the five-county region in 1985. However, because of the type of growth expected in Ventura County, this rate could easily be exceeded. It is probable that per capita income for the County will equal that of the five-county region within the study period. A rate of growth of 3.5% will cause Ventura County's per capita income to match that projected for the five-county region by 1990.

Contained in Figure 11 is a projection for the rate of inflation. Inflation has been compounding at the rate of 1.7% per year for the last 20 years and can be expected to continue at that rate. Thus, with a 3.0% increase in income and a 1.7% increase in inflation, net real buying power would increase at the rate of 1.3% per year.

The chart, "Per Capita and Household Income - Education Level", at the beginning of this report shows an estimation for the Primary Study Area of per capita income for 1960 and 1965; and a projection of per capita income for the study period. Although Oxnard, the major component of population in the study area, had an income virtually identical to the County; Port Hueneme, with over 20% of the population, had an income well below that of Oxnard. For this reason, per capita income for the Primary Study Area was estimated to be several hundred dollars lower than for the County. The projection of income was made within a range, the lower boundary of which is a 2.0% compounded rate of increase, and the upper boundary of which is compounded at 3.5% annually to 1985 and at 3.0% thereafter. The higher rate of growth is justified by the assumption that per capita income for the Primary Study Area will grow to match that for the County within the study period.

Household income, as previously defined, may be projected from per capita income by making a projection of population per dwelling unit in the area. Table 8 is a tabulation of this quantity in the immediate past and a projection for the Primary Study Area for the future. Utilizing the later figures,

TABLE 7

1959 FAMILY INCOME BY % OF FAMILIES

Income	Orange County	Ventura County	Oxnard	Port Hueneme
Under $5,000	24.5%	32.7%	33.9%	44.4%
$5,000-$9,999	51.3	48.6	47.1	46.3
$10,000-$14,999	17.5	13.8	14.6	8.4
$15,000 +	6.7	4.9	4.4	.9

Area	1959 Median Family Income
United States	$5,660
California	6,726
Los Angeles County	7,046
Orange County	7,219
Ventura County	6,466
Oxnard	6,471
Port Hueneme	5,389

Source: U. S. Census

TABLE 8

POPULATION/DWELLING UNITS

	1950	1960	1963	1964	1965	1966	1967
County	3.59	3.28	3.11	3.27	3.28	3.27	3.40
Secondary Study Area			3.32	3.39	3.38	3.35	3.50
Primary Study Area			3.59	3.73	3.70	3.73	3.90

1985 Projection - Primary Study Area - 3.4 - 3.7

2000 Projection - Primary Study Area - 3.0 - 3.5

Source: U. S. Census
Ventura County Planning Department
Gruen Associates

household income is projected for the Primary Study Area in the chart "Per Capita and Household Income-Education Level", at the beginning of this report.

Buying power potential in a community is related to disposable income rather than total income. Assuming the present Federal Income Tax structure remains constant over the study period, the State Income Tax structure shows a modest increase in tax rate, and the F.I.C.A. rate increases over the study period, an estimation of disposable income has been made and is shown on the graph "Per Capita and Household Income - Education Level". Estimated average income taxes on household income were as follows (the effect of any possible City income tax was neglected, as was County property tax):

1960	12.9%
1965	14.1%
1985	20.9 - 25.9%
2000	24.1 - 33.3%

Under these assumptions, average disposable household income should be between $10,450 and $16,690 by the year 2000, and disposable per capita income should reach $3,490 to $4,770 by the year 2000.

6. Commercial-Retail Needs

Reflecting the fact that Ventura County has less per capita income than the five-county Southern California region, Figure 12 shows that retail sales per capita are lower in Ventura County than in the five-county region. However, as also shown in Figure 12, percentage of income spent for retail items out of total income is about the same for either Ventura County or the five-county region. Thus, because of size of per capita income, Ventura County is not capturing its share of sales for its population size. Undoubtedly, the effect is worsened because of the ready markets in Los

TABLE 9

DISTRIBUTION OF TAXABLE RETAIL SALES

	Ventura County 1965	Oxnard 1960	Oxnard 1965
*Convenience Goods	17.5%	14.3%	14.8%
Merchandise	34.7	29.2	28.6
*Automotive	28.0	30.9	29.1
Building Materials	6.2	5.8	6.1
Eating & Drinking	10.4	10.4	11.2
Other	3.2	9.4	10.2
	100.0%	100.0%	100.0%

*Tax exempt sales are a significant part of total sales in these categories.

Source: Security First National Bank
Gruen Associates

TABLE 10

DISTRIBUTION OF TOTAL RETAIL SALES IN PRIMARY STUDY AREA

	1965 Estimate	2000 Projection
Convenience Goods	30%	25%
Shopper Goods	31%	34%
Automotive	23%	25%
Building Materials	3%	2%
Eating & Drinking	7%	9%
Other	6%	5%

Source: Gruen Associates

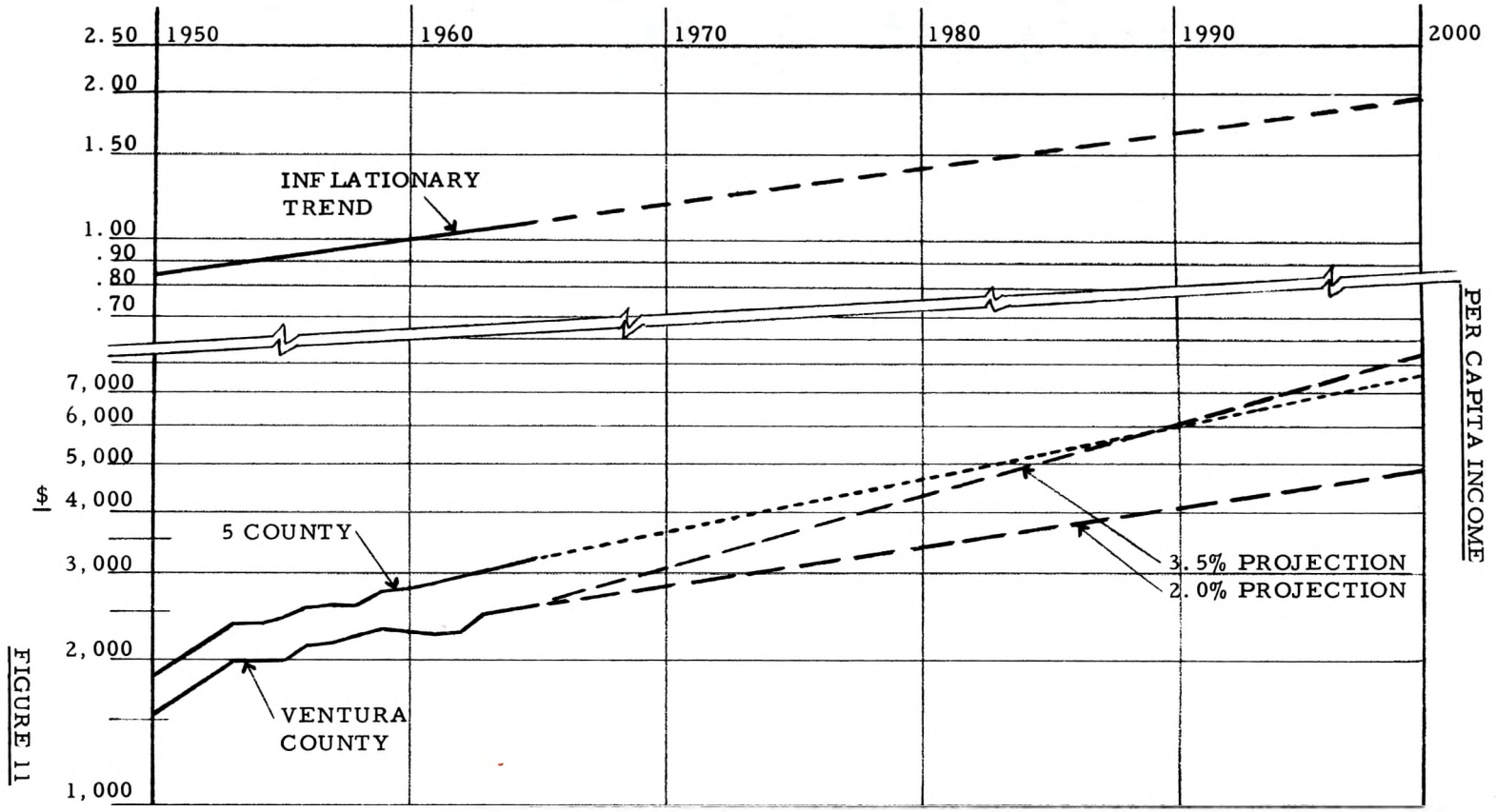


FIGURE 11

SOURCE: U.S. DEPT OF COMMERCE
LOS ANGELES C. of C.
SECURITY FIRST NATIONAL BANK
V.G.A.

Angeles County available to and used by Eastern Ventura County residents. As the population in the County grows and becomes a more significant part of the five-county region, the commercial base of the County may be expected to grow out of proportion to the population increase.

Dollars spent for retail items can be conveniently grouped into six categories. Table 9 shows such a distribution of taxable retail sales for Ventura County and Oxnard. The item convenience goods includes food, liquor, and drugs. A significant portion of the sales of food and drugs is not taxable and is not included in Table 9. The Merchandise category includes all apparel, appliances, hardware, home furnishings, and general and specialty merchandise. The automotive category includes new and used car sales and service station sales. Since many of the latter items are not taxed directly, the Automotive category includes sales of many items not reflected in the figures of Table 9. The remaining categories are self-explanatory.

According to the values shown in the lower portion of Figure 12, taxable retail sales average approximately two-thirds total retail sales in Ventura County. Therefore, further use of Table 9 must be tempered by an adjustment to include those non-taxable retail items. The categories significantly underrated have been explained in the previous paragraph.

Table 10 lists an estimate for 1965 and a projection for 2000 of the distribution of total retail sales for the Primary Study Area. As income rises it is expected that food items will command much smaller percentages of one's disposable income. This has been the historical case and can be expected to continue. On the other hand, material goods will be purchased in greater percentages of one's disposable income, as well as expenditures for the entertainment item, eating and drinking.

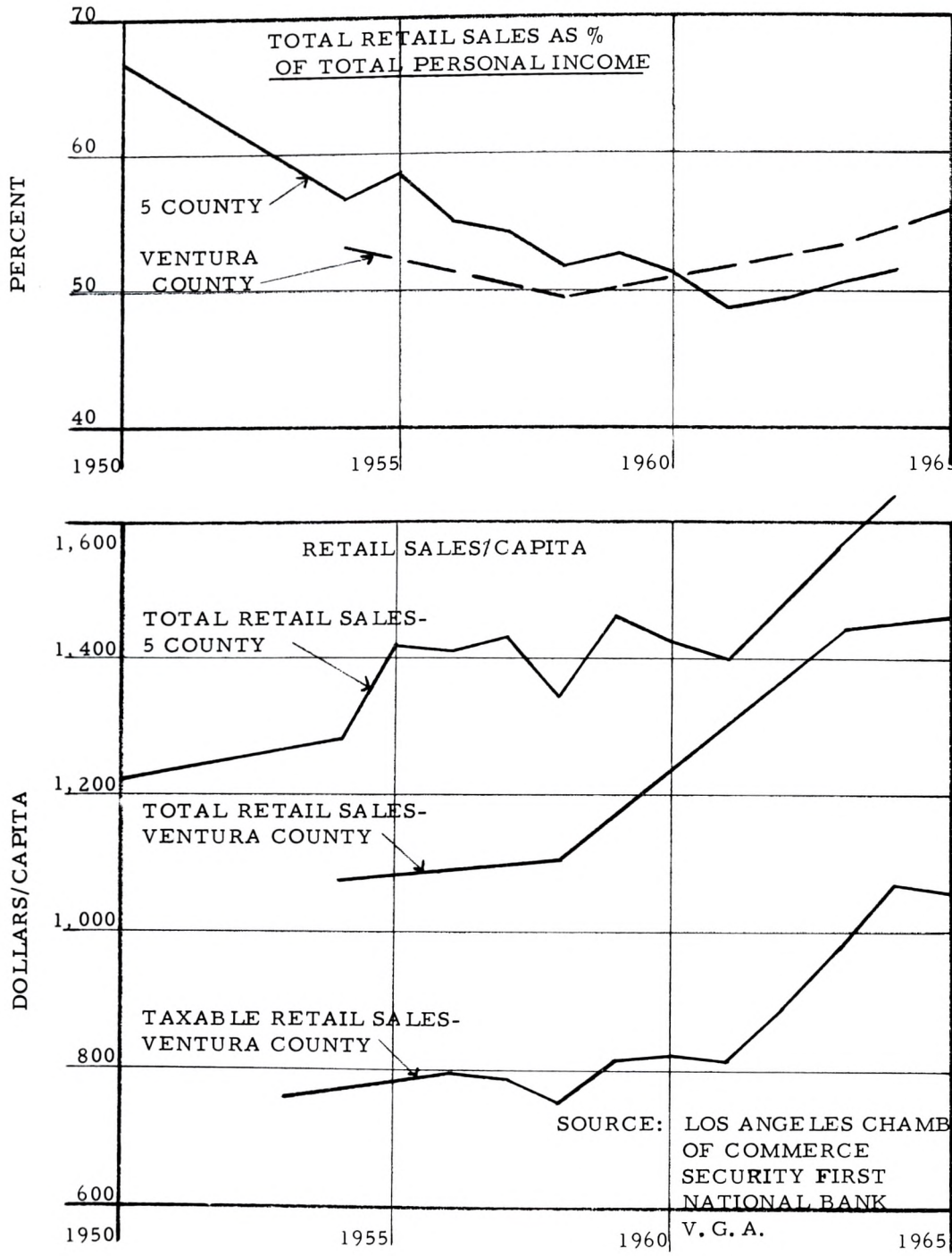

70
60
50
40
PERCENT
TOTAL RETAIL SALES AS %
OF TOTAL PERSONAL INCOME
5 COUNTY
VENTURA
COUNTY
1950
1955
1960
1965
1,600
1,400
1,200
1,000
800
600
DOLLARS/CAPITA
RETAIL SALES/CAPITA
TOTAL RETAIL SALES-
5 COUNTY
TOTAL RETAIL SALES-
VENTURA COUNTY
TAXABLE RETAIL SALES-
VENTURA COUNTY
SOURCE: LOS ANGELES CHAMBER
OF COMMERCE
SECURITY FIRST
NATIONAL BANK
V. G. A.
1950
1955
1960
1965

FIGURE 12

TABLE 11

DISTRIBUTION OF DISPOSABLE INCOME IN THE PRIMARY STUDY AREA

	1965 Estimate		2000 Projection	
Convenience Goods	17.0%		13.9%	
Merchandise	17.5		18.9	
Automotive	13.0		13.9	
Building Materials	1.7		1.1	
Eating & Drinking	4.0		5.0	
Other Retail	3.4		2.7	
Total Retail		56.6%		55.5%
Services	8.3		10.2	
Other Commercial	4.1		7.3	
Total Commercial & Retail		69.0%		73.0%
Savings, Interest, Investment	4.0		6.0	
Medical-Dental	7.0		6.0	
Shelter	20.0		15.0	
Total Disposable Income		100.0%		100.0%

Source: Gruen Associates

Retail purchases are only a portion of the expenditures of one's disposable income. Table 11 shows an estimate for 1965 and a projection for 2000 of the distribution of disposable income in the Primary Study Area. Various estimates of amount of disposable income spent for retail items ranges from 50% to as much as 65%. It is our feeling that the higher estimates include expenditures in the retail category for services or other commercial categories, such as insurance, amusement, travel, etc. Alternatively, some estimates disregard such items in a breakdown of disposable income. Table 11 shows our estimate of about 55-57% expenditure for retail items and 12-14% for other commercial items. While retail items should command about the same percentage in 2000, increasing expenditures for services and amusement is reflected by an increase of several percent in this category. The increase in services should be compensated for by smaller percentages of one's income required to be spent for housing.

The distribution of Table 11 can be applied to our projection of income shown in the graph "Per Capita and Household Income-Education Level" at the front of this report. Table 12 lists the range of expenditures per capita for the categories of expenditures which we have used. The range of total potential expenditures in each category for the Primary Study Area can be found in the chart "Disposition of Projected Disposable Income", at the front of this report.

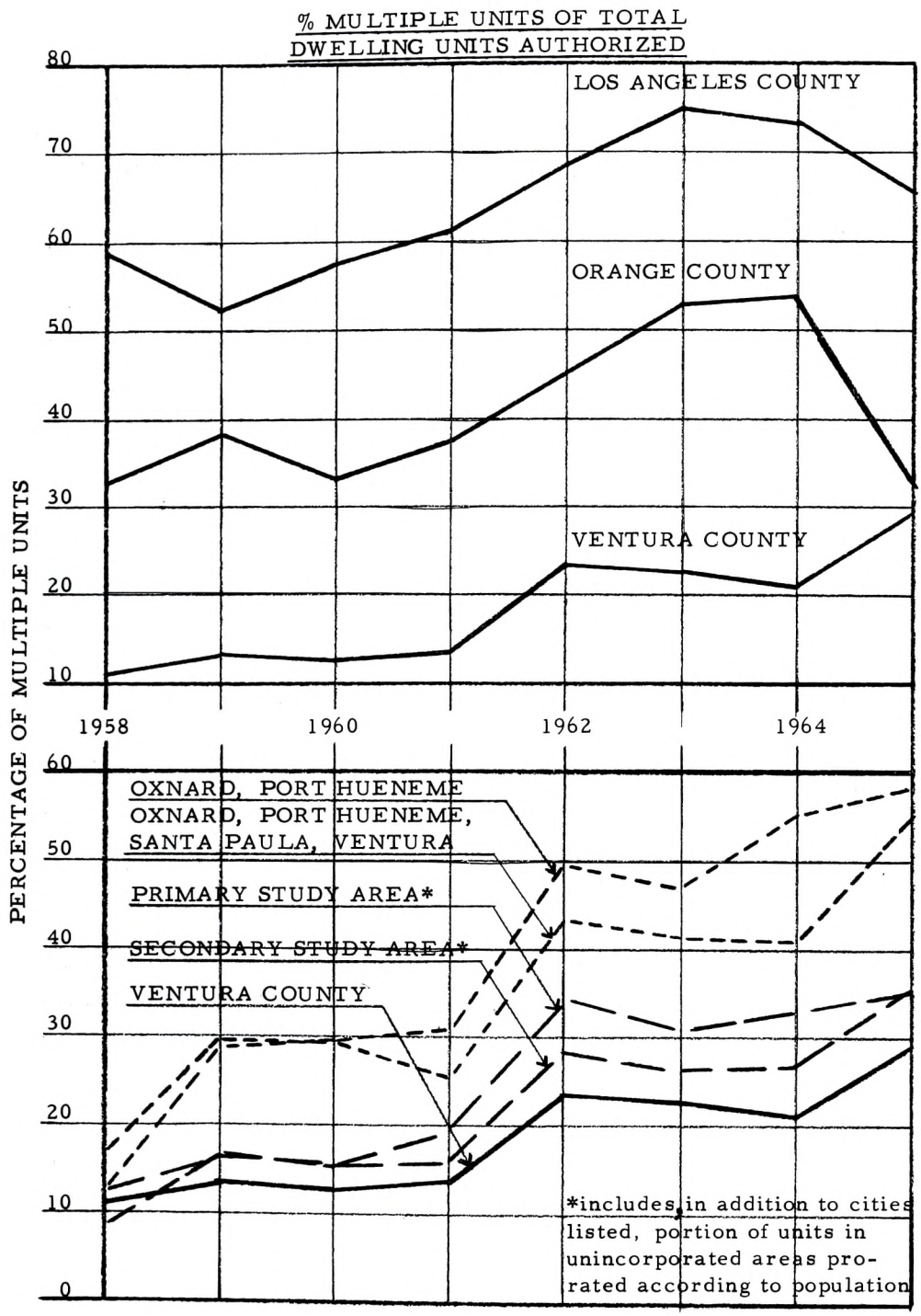
These projections of the disposition of disposable income are required for a general plan study so that area requirements for the various commercial functions can be generated. The amount of sales dollars required to support every square foot of commercial area are fairly well established. The sales per square foot required at the present time must, however, be adjusted for the effects of inflation. Figure 11 shows that inflation has been a relatively constant 1.7% for the past 20 years. Therefore, as seen in Table 13, merchandising space requiring $50 of sales per square foot of area presently, will require $90 per square foot by the year

TABLE 12

EXPENDITURES/CAPITA IN PRIMARY STUDY AREA

	1965 Estimate	1985 Projection	2000 Projection
Convenience Goods	$ 337	$ 397-$ 495	$ 485-$ 663
Merchandise	347	498- 631	660- 902
Automotive	257	367- 465	485- 663
Building Materials	34	34- 42	38- 52
Eating & Drinking	79	127- 162	175- 238
Other Retail	67	80- 99	94- 129
Total Retail	$1,121	$1,503-$1,894	$1,937-$2,647
Services	164	260- 332	356- 487
Other Commercial	81	172- 223	255- 348
Total Commercial & Retail	$1,366	**$1,935-$2,449**	$2,548-$3,482
Savings, Interest, Investment	79	146- 189	209- 286
Medical-Dental	139	169- 211	209- 286
Shelter	396	440- 601	524- 716
Total Disposable Income	$1,980	$2,690-$3,450	$3,490-$4,770

Source: Gruen Associates



SOURCE: SECURITY FIRST NATIONAL BANK
V.G.A.

FIGURE 13

2000. The other values used in this report are shown in Table 13. Commercial facilities other than retail stores have area requirements based on population rather than sales. Table 13 also shows the values used for these categories in this report. Increases in requirements may be seen for Offices and Transient Lodging, reflecting increased expenditures for services in the first case, and increased travel and recognition of the geographical location of the Primary Study Area in the latter case. The Table "Area Requirements" at the front of this report shows the range of total square footages projected for the Primary Study Area by the year 2000.

6. Real Estate

The inventory of housing units in a given area gives important information on the characteristics of the population. More important to the planning process is the population per housing unit in a growing community and how that ratio may change with time. Table 8, listing the ratio of population per housing unit for the Primary and Secondary Study Areas and the County, shows the ratio to be larger as the size of the study area decreases. Thus, in the Primary Study Area density of population per housing unit is most intense, and has been growing for the last four years. The County ratio seems to have dropped since 1950, but has been increasing during the last few years.

In order to arrive at the amount of housing which must be accommodated within the Primary Study Area, several approximations are required. A strong determinant of housing needs is the average number of people residing in each dwelling unit.

It is assumed that as population grows and due to trends toward smaller families, particularly in the economic brackets expected within the Primary Study Area in the future, the population per housing unit will decrease during

the study period. Based on Table 8, which shows roughly 3.5 to 3.7 people per housing unit in 1965, and on the graph "Projection of Age-Sex Distribution", at the front of this report, we expect the present level to remain roughly the same until 1985, and then to decrease by the year 2000. Accordingly, the range 3.4 to 3.7 persons per housing unit was used for 1985; and the range 3.0 to 3.5 persons per housing unit was used for the year 2000.

Using these ranges, the number of residential units expected within the Primary Study Area is shown in the graph "Projection of Residential Units", at the front of this report. Probably between 157,000 and 244,000 housing units will be required by the year 2000, as compared to 27,000 units within the Primary Study Area in 1965.

It has previously been stated that population in traditional population cores within Ventura County will grow more dense as the County grows, and the density in the cores will remain higher than the County as a whole. The increase in multiple unit housing is an indication of this fact. Figure 13 shows the trend of multiple units related to total housing authorized within and around Ventura County.

The upper portion of that figure compares multiple unit density for Ventura, Orange and Los Angeles Counties. Los Angeles, already relatively dense in population, runs about two-thirds multiples of all units authorized. Orange, growing and getting near the population density of Los Angeles, runs 40 to 50 percent multiples of all units authorized. Ventura County, with a much smaller population density, has been authorizing less multiple housing, but the rate is continuing to grow steadily. The rate of multiple/total housing for Ventura County seems to presently be comparable to Orange County ten years ago. It is interesting to note that, although all three counties have been seriously affected by the slump in the house construction industry which started in 1964, only Ventura County had an increasing

TABLE 13

DOLLAR SALES/SQ. FT. RETAIL SPACE

	1965	1985	2000
Convenience Goods	$80	$110	$145
Merchandise	50	67	90
Automotive	40	53	70
Building Materials	50	67	90
Eating & Drinking	50	67	90
Other	50	67	90

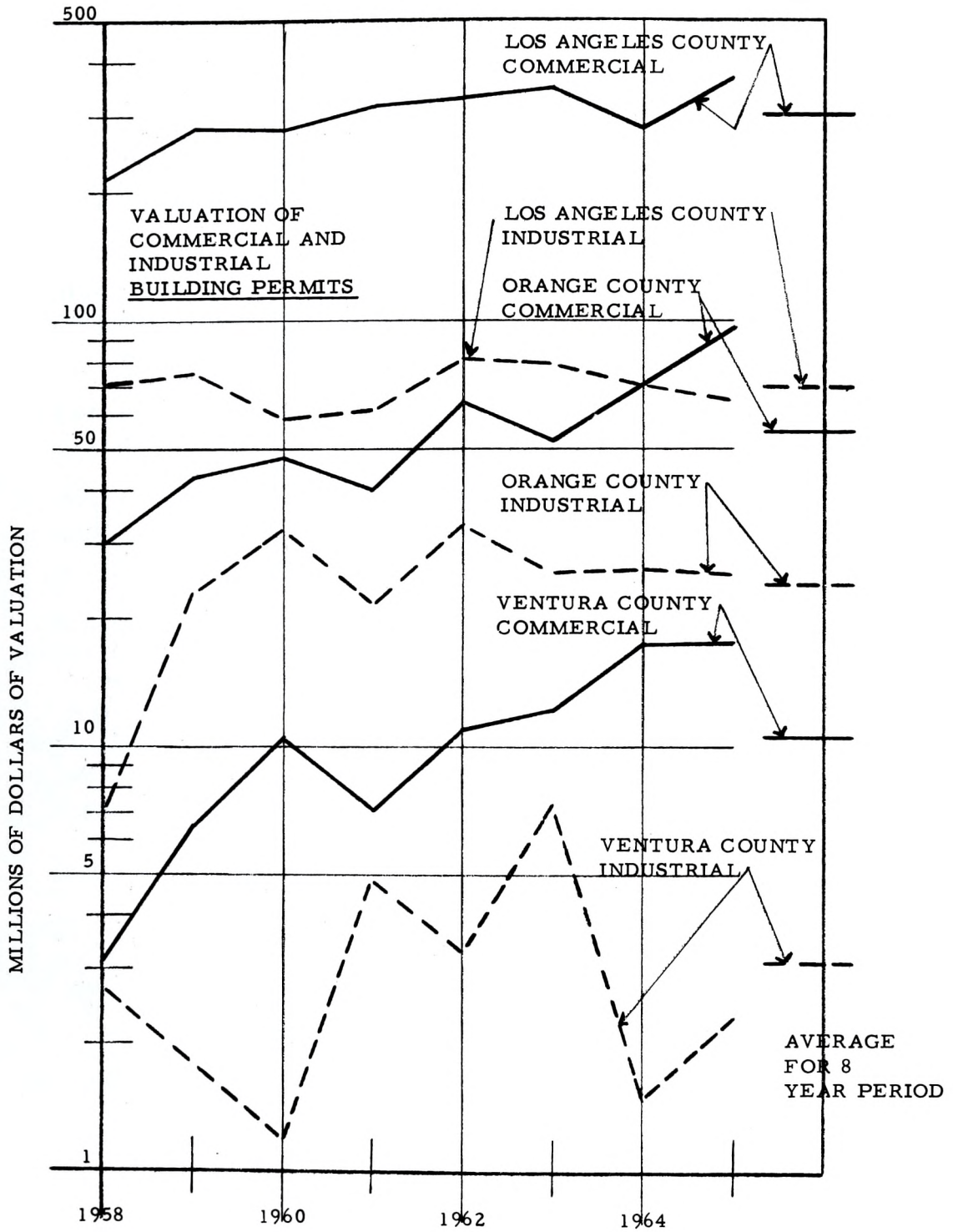
Note: 1965 figures have been adjusted for rate of inflation, as shown in Figure 11, to arrive at 1985 and 2000 figures.

Source: Gruen Associates

SQ. FT. COMMERCIAL FACILITIES/CAPITA

	1965	1985	2000
Service Stations	20.0	20.0	20.0
Offices	6.5	7.5	8.0
Wholesale Facilities	20.0	20.0	20.0
Commercial Amusement (including parking)	10.0	10.0	10.0
Transient Lodging (including parking)	12.0	16.0	20.0

Source: Gruen Associates



SOURCE: SECURITY FIRST NATIONAL BANK

FIGURE 14

ratio of multiple/total housing units through 1965. The lower portion of Figure 13 shows that the relationship of population density to percentage of multiple housing is repeated within the study areas of this report. The two dotted lines show ratios for the incorporated cities within each of the two study areas. These ratios have been continually rising and are now approaching 60 percent multiple units/total housing units authorized. The ratios given for the Primary and Secondary Study Areas are only extremely rough approximations, and were arrived at by adding a portion of the housing units authorized in the unincorporated areas of the County on a pro rata basis according to population in the unincorporated portions of the study area and County. It would be reasonable to expect that a large part of the multiple housing authorized is near the cities in the study areas, but no reflection of this expectation has been made in the ratios graphed in Figure 13.

One of the determinants of the amount of land required for the number of housing units projected is the number of multiple units projected. Based on the trend for the Primary Study Area and the evidence of the amojnt of multiple housing in the other counties shown in Figure 13, we estimate that 60 percent of all units authorized by 1970 will be multiple units. The percentage of multiple units/total housing units authorized could rise by 5 percent each 5 years thereafter, and could be 85 percent by the year 2000. The graph "Projection of Residential Units" shows the impact of this amount of multiple housing.

The total amount of land required for housing within the Primary Study Area can be arrived at with one final assumption. An estimation of dwelling units per gross residential must be made. Because of the amount of multiple housing expected, we can assume approximately 7 units per acre by 1985 and 10 units per acre by the year 2000. Utilizing these assumptions, the number of acres required for housing are given in the Table "Area Needs", in the front of this report.

Table 14 gives the average annual percentage increase of assessed valuation of Ventura County. It appears that roughly a 10 percent annual increase could be projected for the County in the future. This is roughly comparable to annual population growth expected. Table 14 also shows that land values have increased strongly over the past four to five years, while percentage relegated to improvements has remained constant. This is a good indication of a strong population growth.

A measure of growth potential of a region is the amount of industrial and commercial development in the region. Figure 14 shows recent history in this respect of Orange, Ventura, and Los Angeles Counties. The average for the 8-year period for each county is given on the right hand ordinate. While the valuations each year for Los Angeles County have been relatively static, those for Orange and Ventura County have been rising at various rates. Table 15 lists the average values shown on the right-hand ordinate of Figure 14 (lines 1 and 2) and then shows in lines 3 and 4 these average values as compared to 1965 population or in lines 5 and 6, as compared to value of residential permits over roughly the same period of time. Although the Ventura County values in lines 1 and 2 seem anemic in comparison to the values for the other counties, lines 3 and 4 show that on a per capita basis the growth evidenced by commercial and industrial building permits is not seriously smaller in Ventura County than in the other two counties. The strong commercial growth in Orange County (line 3) is evidence that this County is rapidly establishing a commercial base independent of Los Angeles County, while Ventura County is not showing such a strong similar trend. Industrial growth (line 4) is similarly inclined, with the exception that Orange County is showing evidence of even more independence and Ventura County is showing evidence that its rate of industrial growth per capita may exceed that of Los Angeles in the near future.

TABLE 14

AVERAGE ANNUAL % INCREASE OF ASSESSED VALUATION - VENTURA COUNTY

Ten-Year Period

1906-16	1916-26	1926-36	1936-46	1946-56	1956-66
22.5	9.2	3.6	8.3	15.5	10.7

% BREAKDOWN OF ASSESSED VALUATION - VENTURA COUNTY

Tax Period	1963-64	1966-67
Land	29.0%	41.9%
Improvements	43.2	43.7
Mineral Rights	18.0	7.5
Other	9.8	6.9

Source: Ventura County Economic Development Association

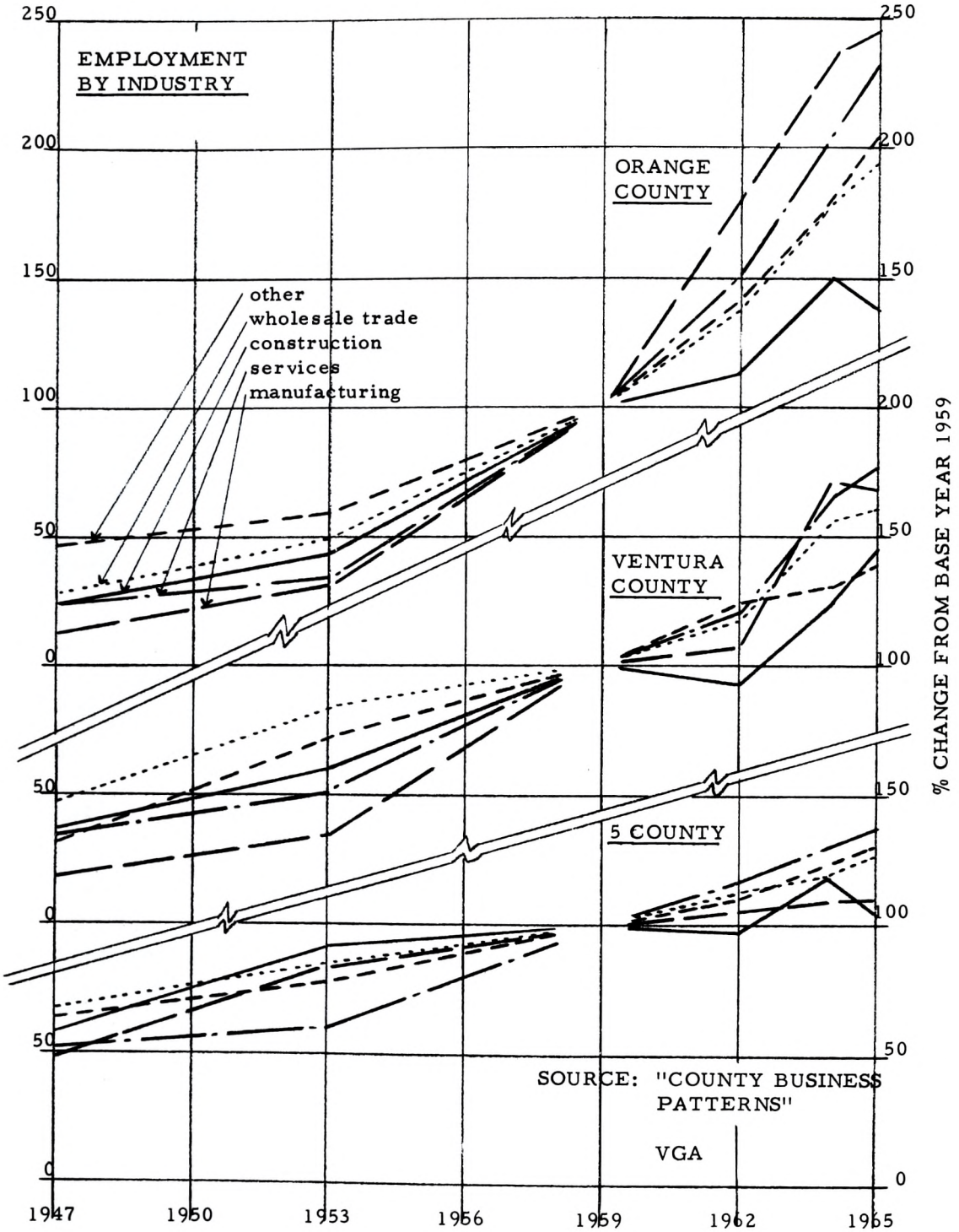

EMPLOYMENT
BY INDUSTRY
other
wholesale trade
construction
services
manufacturing
ORANGE
COUNTY
VENTURA
COUNTY
5 COUNTY
SOURCE: "COUNTY BUSINESS
PATTERNS"
VGA
% CHANGE FROM BASE YEAR 1959
250
200
150
100
50
0
1947
1950
1953
1956
1959
1962
1965

FIGURE 15

Lines 5 and 6 of Table 15 may be interpreted in an inverse manner. Higher percentages of commercial or industrial permits as compared to residential would indicate a less intense population growth with a consolidation of the industrial or commercial base. Thus, both Orange and Ventura Counties presently have a stronger effort on satisfying housing needs of their population increases, while concentration of their commercial and industrial bases is not proceeding as rapidly as in a more population saturated region.

7. Employment.

A basic assumption to the projected rapid rate of population growth is that there will be a major shift in the direction of intensive urban development toward the western portion of the five-county Los Angeles region and that Ventura County will receive the largest share of this westerly growth. Necessary to the change in the orientation of regional growth is the development of a sizable job base in Ventura County in order to sustain a high rate of intensive urban growth.

Industries oriented to a variety of activities must be given the incentive to locate in Ventura County. This would permit the development of the balanced community needed for continued rapid growth. Rapid growth will essentially rely on the development of a strong manufacturing base.

Presently, employment within the County differs considerably from County population employed. This is because large numbers of workers are employed in Los Angeles County. The Ventura County Planning Department has stated that in 1960, 6.7% of the employed population worked outside of the County; while in 1965, 10.3% held jobs outside of the County. The Ventura County Economic Development Association has estimated that 10.0% of the employed population in 1966 worked outside the County, principally in the San Fernando Valley. They cite this as one of the reasons Ventura County ranks low in the state in the manufacturing employment per 1000 population rate.

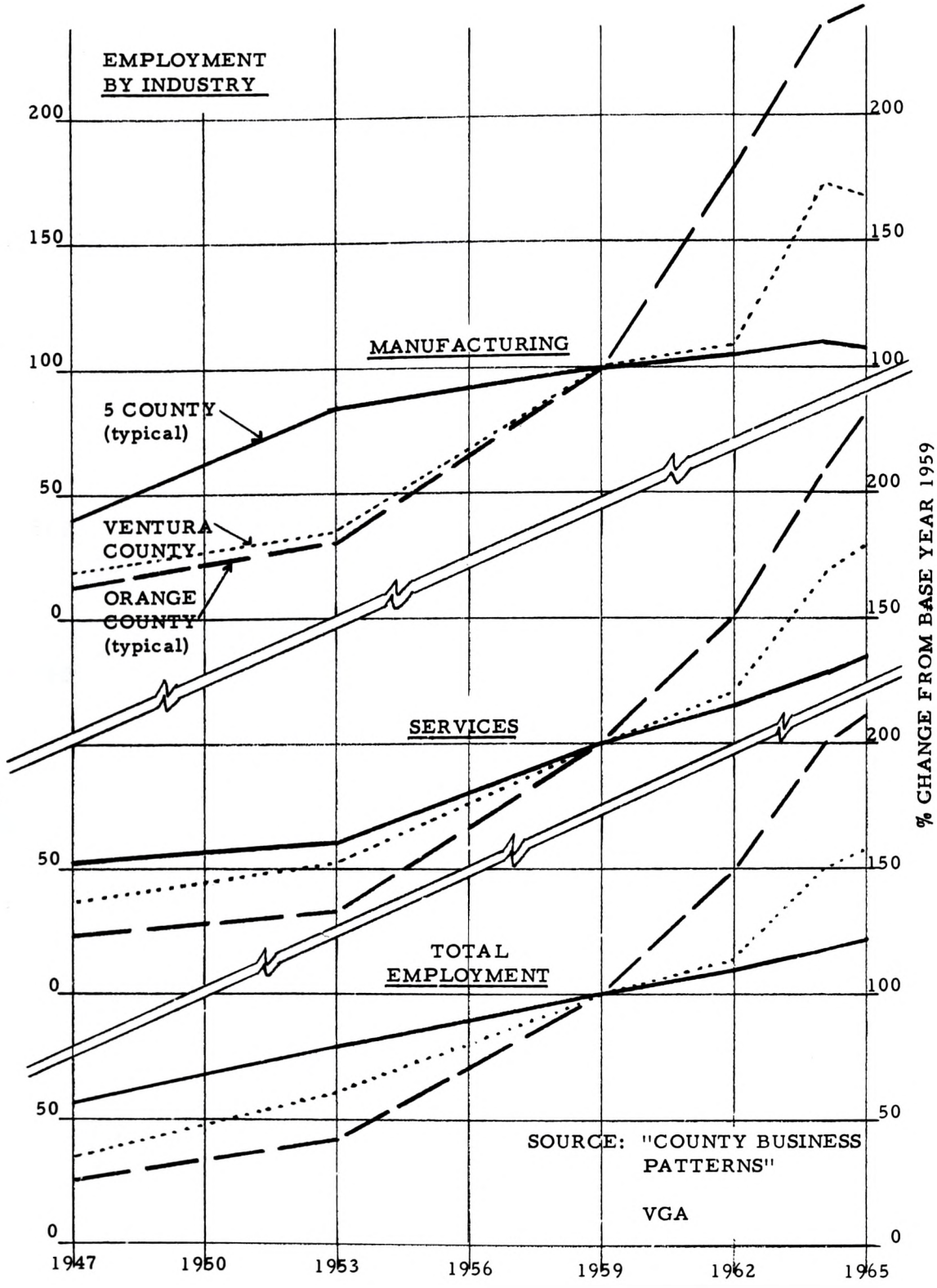

EMPLOYMENT
BY INDUSTRY
MANUFACTURING
5 COUNTY
(typical)
VENTURA
COUNTY
ORANGE
COUNTY
(typical)
SERVICES
TOTAL
EMPLOYMENT
SOURCE: "COUNTY BUSINESS
PATTERNS"
VGA
% CHANGE FROM BASE YEAR 1959
200
150
100
50
0
1947
1950
1953
1956
1959
1962
1965

FIGURE 16

TABLE 15

VALUATION OF COMMERCIAL AND INDUSTRIAL BUILDING PERMITS

		Los Angeles County	Orange County	Ventura County
1.	Average Value/Year Commercial Permits 1958 - 65 (000,000)	$300.8	$55.4	$10.6
2.	Average Value/Year Industrial Permits 1958 - 65 (000,000)	$ 70.1	$24.2	$ 3.1
3.	Average Value/Year Commercial Permits 1958 - 65 Per 1965 Population	$ 44.1	$50.2	$35.7
4.	Average Value/Year Industrial Permits 1958 - 65 Per 1965 Population	$ 10.2	$22.0	$10.5
5.	Average Ratio Commercial/Residential Permits 1958 - 63	33.4%	13.7%	11.8%
6.	Average Ratio Industrial/Residential Permits 1958 - 63	8.2%	6.9%	4.8%

Table 16 shows employment within the County for the recent past. Total employment/population seems to be on the decrease while manufacturing employment/population is holding steady or increasing slightly. If the previously cited percentages for out-of-county workers are applied to the figures of Table 16, we find total employment of the population of Ventura County to have been 74,800 in 1960; and 102,300 in 1965.

Table 17 lists latest County employment by industry. Percentages and absolute numbers of employees in agriculture and mining, are down from 1960, as would be expected in a County with a rapid population growth. Amounts of construction workers are down because of the region-wide construction slump. Employees in manufacturing, as seen in Table 16, were increasing, but have very recently been decreasing. All other categories of employees are increasing or holding steady in percentage compared to total employment.

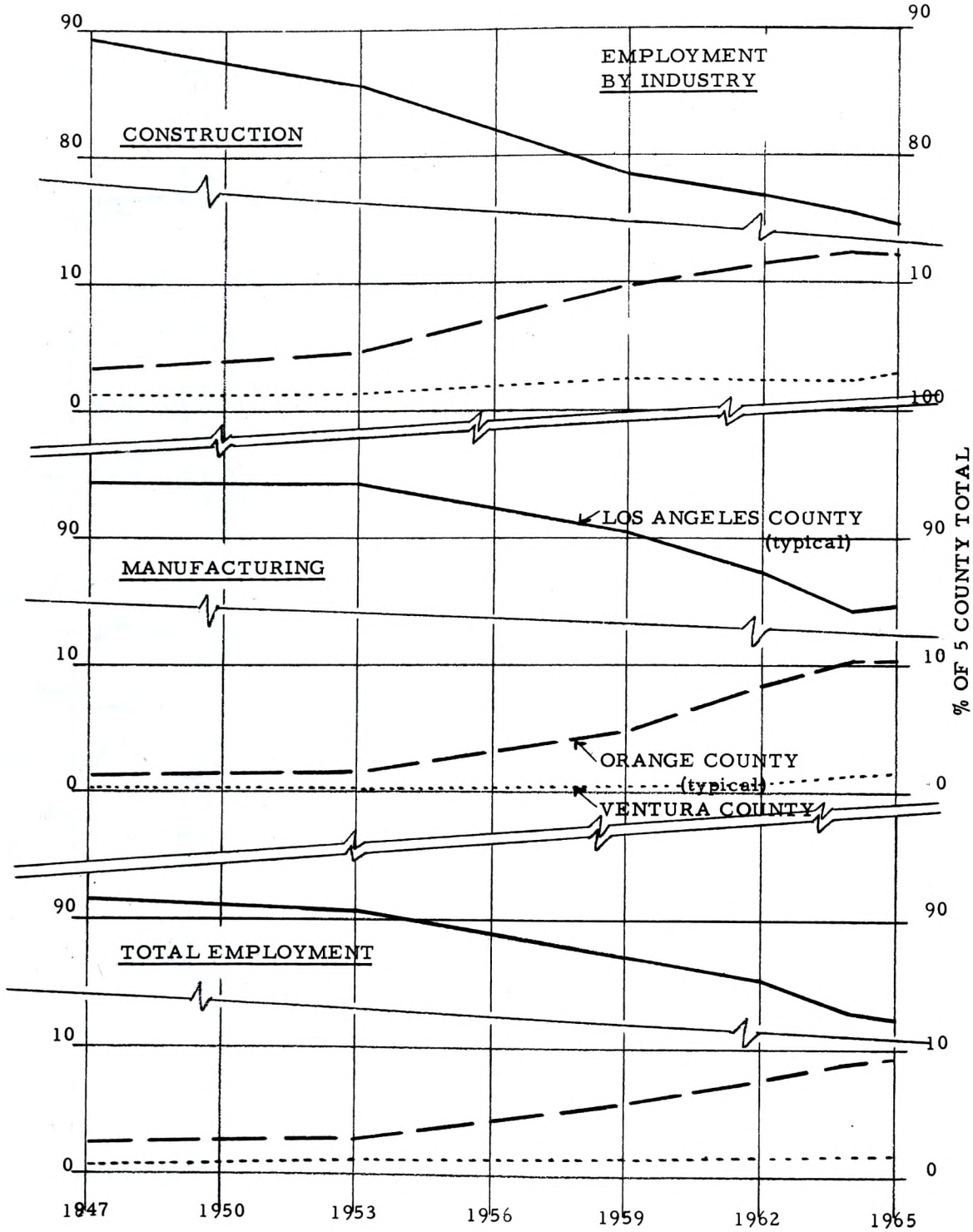
The previous Tables have, as their source, the California Department of Employment. Their figures are derived from workers covered by the California Unemployment Insurance Code, representing about 72 percent of total employment, and then adjusted up to an estimation of total employment. The following figures are derived from the U.S. Department of Commerce, Bureau of the Census, "County Business Patterns", and include only employees covered by the Social Security Program. The Bureau of the Census estimates their coverage of total employment at about 65.1 percent and the figures have not been adjusted here to reflect total employment. Thus, there is no accurate comparison available between the State and Federal figures. The Federal figures will not be used as absolutes, and will only be used to show trends. A greater number of workers have been covered by each edition of the "County Business Patterns" (1956 estimate 62.4%, 1964 estimate 65.1%); thus influencing trends upward with time, but this source is used regardless, since it is the most comprehensive for

the longest period of time. Figure A (Appendix) compares trends as shown in the State and Federal information for Ventura County for the past eight years. The Federal data tend to be more exaggerated than State data.

Figures 15 through 19 are exhibits of the Federal employment data under different sets of comparisons. Figure 15 compares growth of each industry type within Ventura and Orange Counties and the five-county region by setting 1959 as the base year. The five-county region, most heavily influenced by Los Angeles County, shows a relatively sedate growth of all industries compared to Orange and Ventura Counties. The most rapid rise has been in services employment within the five-county region. Growth of services employment within Orange County has also been rapid, but is second to the growth of manufacturing employment. Manufacturing employment has gone from about 15% (of base year) in 1947 to about 240% (of base year) in 1965. Within Ventura County growth in services employment has also been second to growth in manufacturing employment, but the increase in either case, while greater than for the five-county region, has been modest compared to growth in Orange County. Manufacturing employment in Ventura County has risen from 20% (of base year) in 1947 to 180% (of base year) in 1965.

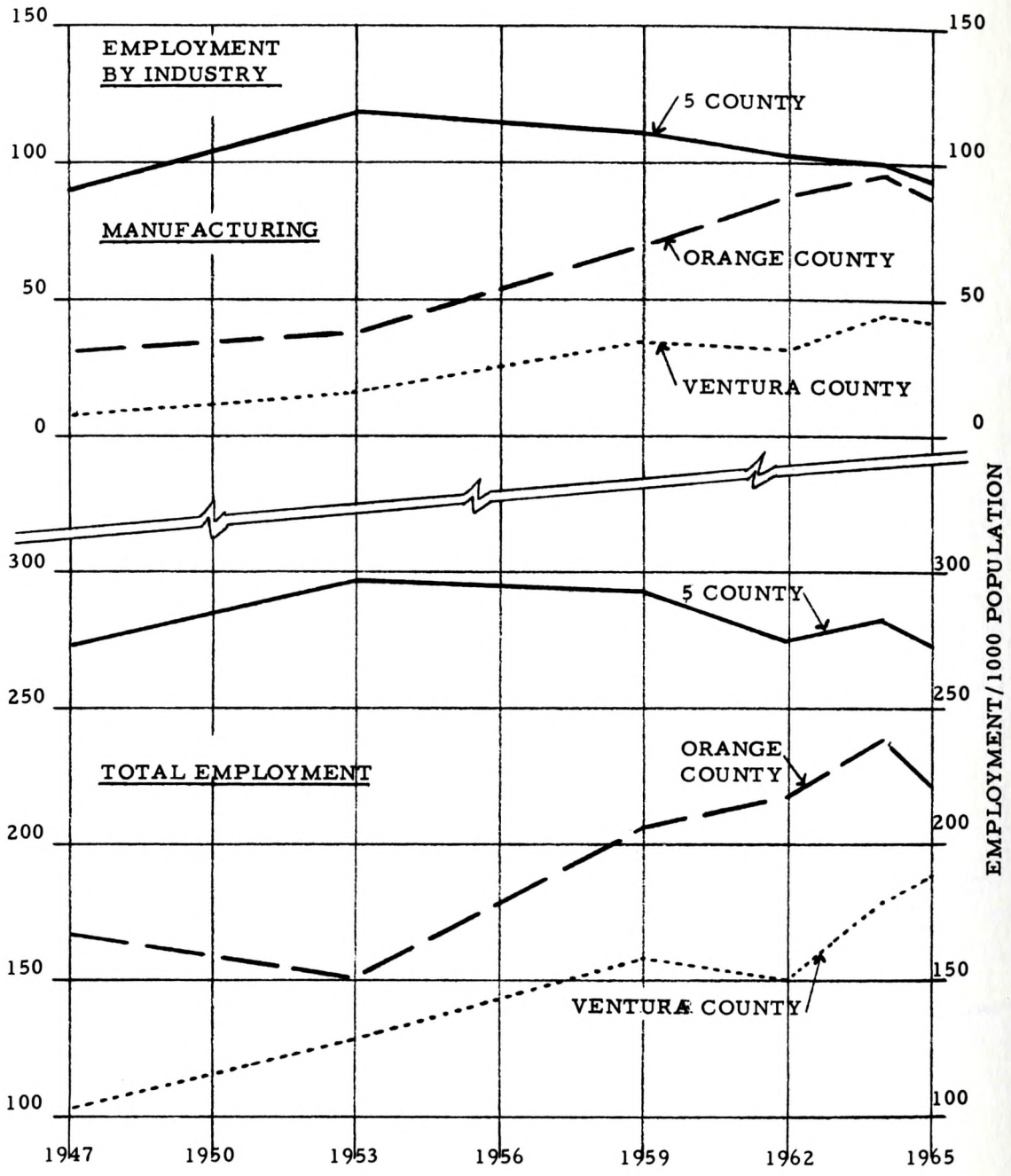
The growth rates in manufacturing, services and total employment for the two counties and the five-county region are shown in Figure 16. The spectacular rate of growth in Orange County for these employment categories is clearly seen, while the rate of growth for Ventura County can be seen to be substantial.

The absolute comparison in employment between Los Angeles, Orange, and Ventura Counties is exhibited in Figure 17. In all cases Los Angeles County has rapidly been losing its dominance of the five-county region while Orange County has been gaining almost all of the amount lost by Los Angeles County.



SOURCE: "COUNTY BUSINESS PATTERNS"
VGA

FIGURE 17



SOURCE: "COUNTY BUSINESS PATTERNS"
VGA

FIGURE 18

In manufacturing, particularly, Orange County has gained from 1.5% in 1947 to 10.5% in 1965 of the five-county total, while Los Angeles County has lost from 94.5% in 1947 to 84.5% in 1965. The losses referred to here are not actual losses, but merely a slower rate of addition than the five-county region. In spite of its own internal growth, Ventura County has gained little weight in the five-county employment situation. Its biggest gain, in the five-county situation, has perhaps been in construction; and is indicative of the rate of population growth in that County.

As a comparison of employment growth with population growth, Figure 18 shows employment/1000 population for Ventura and Orange Counties and the five-county region. For the five-county region, total employment/1000 population seems to have peaked out at 300 and is now descending. Both Ventura and Orange Counties, on the other hand, show strong upward trends, with the high for Orange County about 240 and about 190 employees/1000 population for Ventura County. These trends would indicate a more solid employment base forming within each of these two counties, perhaps to the detriment of Los Angeles County, in that fewer of the residents of Orange and Ventura County are being drawn to Los Angeles County for employment. Los Angeles County has been referred to here since it most heavily influences the five-county region, as seen in Figure 17. The manufacturing employment trend is similar, except that Orange County now meets the number of employees/1000 population of the five-county region. While the value for Ventura County is growing it is still only half that of the other counties. This would indicate self-sufficiency in the manufacturing base of Orange County, while Ventura County still loses much of its manufacturing employee potential to Los Angeles County.

The data of Figure 18 differs from Table 16 because of the previously explained limits of coverage between the two sources, and is used only for purposes of comparing trends. Ventura County, in particular, is affected because of its relatively high dependence on agriculture.

The final figure of this series, Figure 19, compares employment by industry to total employment within each county. Manufacturing in the five-county region is extremely high compared to the other types of employment, but has been faltering on a percentage basis as services employment has risen. Manufacturing employment in Orange County has shown a spectacular trend in capturing 40% of the total employment in that county. Manufacturing employment is higher in Orange County than in the five-county region, on a percentage of total employment basis. Manufacturing employment in Ventura County has also shown a strong upward trend, but still stands at only about half that of Orange County.

According to the California Department of Employment's "California Community Labor Market Surveys, 1963-64", most of the County's manufacturing base is located in Eastern Ventura County. Much of the non-farm oriented labor in the Oxnard Plain is employed in the defense installations in that area. Because of the size of the labor base, the availability of land priced more economically than in more developed communities, the transport possibilities, and the ready availability of utilities, much more manufacturing industry should find it advantageous to establish in the Oxnard Plain area. Table 18 shows that the occupational groups required for manufacturing are not in short supply in the County,and as more manufacturing locates in the County, the percentages shown in these categories will increase.

The trends shown in the previous data indicate several points of interest. Services employment, in general, is on an upward trend. Manufacturing employment will increase within a county that is experiencing a strong population growth. Agriculture and Mining employment will decrease as population increases, and construction employment will rise slightly along with a population increase.

In order to make projections of employment for the study areas of interest, other data must be studied. Table 19 shows the projections of the Los Angeles Chamber of Commerce for Los Angeles County and the five-county region,

TABLE 16

AVERAGE YEARLY EMPLOYMENT - VENTURA COUNTY

Year	Total Employment	Mfg. Employment	Mfg. / Total %	Employment/1000 Population	
				Total	Mfg.
1957	58,701	5,937	10.1	335	34.2
1958	64,200	7,100	11.1	352	38.9
1959	67,100	7,200	10.7	352	37.7
1960	69,900	7,025	10.1	352	35.3
1961	70,300	6,700	9.5	326	31.0
1962	73,700	7,800	10.6	315	33.3
1963	81,400	10,700	13.1	317	41.5
1964	88,200	12,000	13.6	298	40.4
1865	91,700	12,200	13.3	279	37.1
1966	95,700	11,600	12.2	286	34.7

Source: California State Department of Employment
Security First National Bank
Gruen Associates

TABLE 17

EMPLOYMENT WITHIN THE COUNTY BY INDUSTRY

Industry	Average 1960	Average 1965	April 1967	% 1960	% 1965	% 1967
Agriculture Forestry Fishing	13,625	11,000	11,500	20.0	11.8	11.6
Mining	2,575	2,500	2,300	3.8	2.7	2.3
Construction	4,475	5,800	4,100	6.6	6.2	4.2
Manufacturing	7,025	12,800	11,800	10.3	13.8	12.0
Transportation Communication Utilities	2,825	3,500	3,900	4.1	3.8	4.0
Trade	12,250	19,300	21,000	18.0	20.7	21.3
Finance Insurance Real Estate	1,725	2,800	2,900	2.5	3.0	2.9
Services	9,000	13,900	15,500	13.2	14.9	15.7
Government	14,700	21,400	25,600	21.6	23.1	26.0
Total	68,200	93,000	98,600	100.0	100.0	100.0

Source: California State Department of Employment

as compared to 1965 distribution of employment by industry. The projections here are for decreasing percentages of employment in agriculture, mining and manufacturing. Total employment/1000 population should rise, with Los Angeles County higher than the five-county region.

Table 20 lists percentage of manufacturing employment compared to total employment. The Los Angeles-Long Beach area has had a significantly higher percentage than either the five-county region, the state, or the country. The five-county region itself is also higher than the state or country.

The graph "Projection of Employment" at the front of this report shows projections of employment for the Primary Study Area, both as percentages of total employment and as absolute numbers. It has been assumed that total employment/1000 population will stand at 340-360 by 1985 and at 360-400 by the year 2000.

Percentages of agricultural and mining employment should fall off rapidly as population increases rapidly, but the numbers in each industry may remain relatively constant, or, in the case of minerals, could increase if additional mineral or oil reserves, both on land and off shore, are exploited. Construction should increase and then level out as the rate of population growth increases. Manufacturing should increase to at least present State of California levels. Trade will increase as the commercial base of the County is built up and should reach present five-county levels. Services will continue the upward trend. Government, now much higher in Ventura County than in Los Angeles County or the five-county region, should decrease to meet the levels of these later areas. Thus, Ventura County should change from an area relatively strongly dependent on agriculture to an area like the present-day Los Angeles or Orange County areas, that are strongly oriented toward manufacturing.

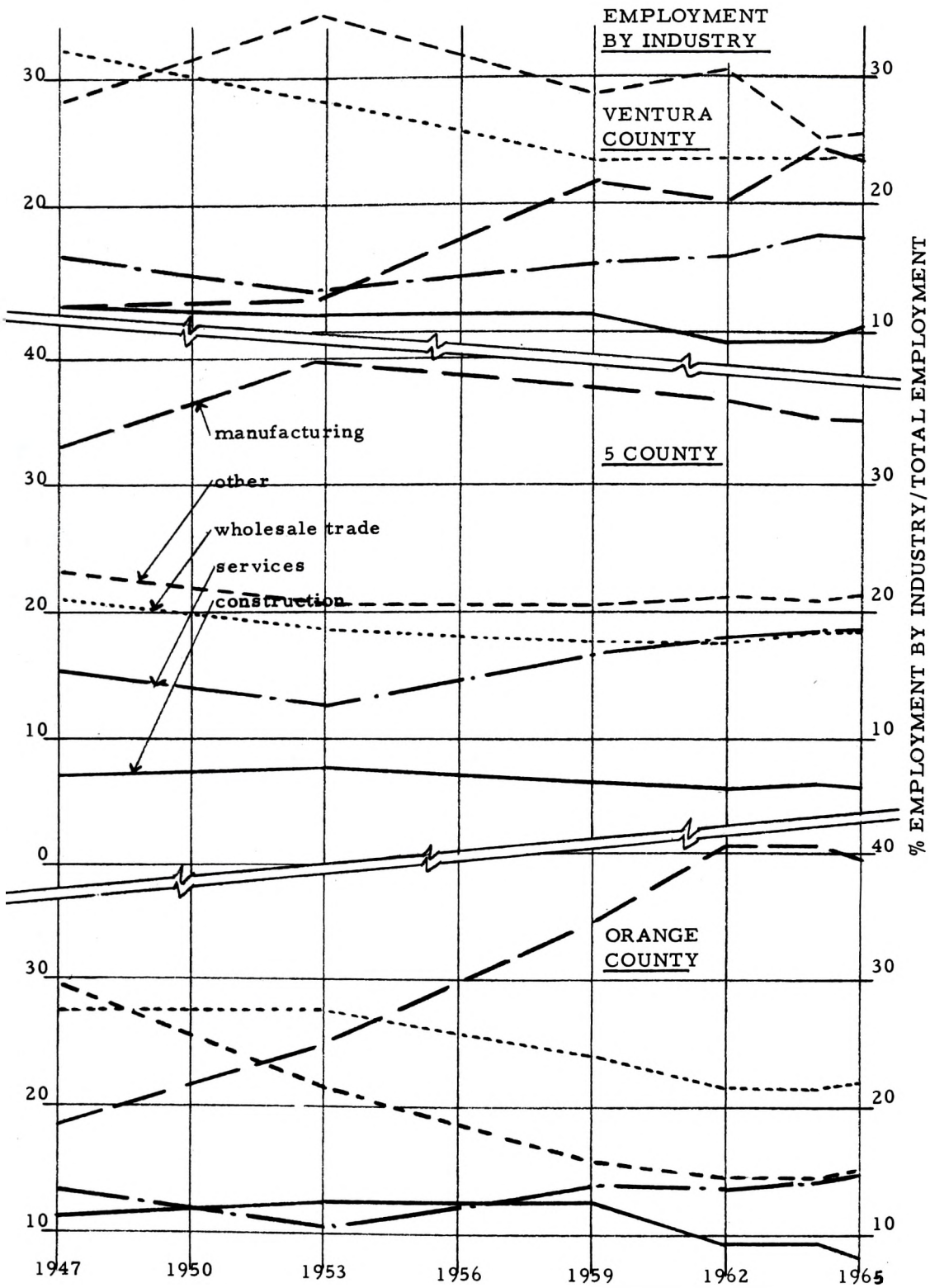
9. Air and Ocean Transport

The Primary Study Area is perhaps unique among the relatively less densely populated communities in California in that it has an operating deep water harbor. For this reason, ocean transport may become an important facet of the economy of the area. Air transport will definitely be important to the economy of the County, because of its burgeoning role in commerce throughout the country.

The Port of Hueneme is the only major deep water commercial port between Los Angeles and San Francisco. It is four miles south of Oxnard and a mile away from one of the County's industrial areas. The Port can accommodate two C-3 ships at one time, in addition to other ships of shallower draft. Handling facilities are adequate at present and storage of 115,000 square feet is available. Truck and rail loading facilities are contained, and regular shipping is offered to Northern European ports. The port is also an important center for marine operations in support of off-shore oil exploration and drilling activities and for commercial fishing. The harbor has acquired additional acreage with which an expansion to five deep water berths can be made.

The Ventura County Airport, in Oxnard, has a runway nearly 6,000 feet in length, an FAA tower, and facilities for quartering commercial and private aircraft. Studies are under way to provide all-weather facilities at the airport. The airport can now handle medium commercial jets, and its location with an open sea approach makes it open to strong consideration for major development. Smaller airports are located in Santa Paula, Ojai, Moorpark, and Simi. County planning calls for additional airports in the Conejo-Newbury Park area, Ventura, and Fillmore.

The airport situation is of particular importance in the growth of Ventura County. Table 21 shows comparisons of the Ventura County Airport with other airports in the Southern California region. The air freight and passenger



SOURCE: "COUNTY BUSINESS PATTERNS"
VGA

FIGURE 19

TABLE 18

VENTURA COUNTY - MAJOR OCCUPATIONAL GROUPS, 1960

Occupation	Number Employed	% of Total Employed
Professional, Technical & Kindred Workers	9,410	13.9
Farmers & Farm Managers	1,263	1.8
Managers, Officials & Proprietors	5,286	7.8
Clerical & Kindred Workers	8,522	12.6
Sales Workers	3,975	5.8
Craftsman, Foreman & Kindred Workers	9,496	14.0
Operatives & Kindred Workers	9,352	13.8
Private Household Workers	1,342	2.0
Other Service Workers	5,283	7.8
Farm Laborers & Foremen	7,518	11.1
General Laborers	3,155	4.6
Occupations Not Reported	3,249	4.8
TOTAL EMPLOYED	67,851	100.0

Source: U. S. Census

traffic are weighted by population in the area served by the airports. The Ventura County Airport can be seen to be behind all the airports listed in volumes of freight and traffic.

Air freight is of particular importance. At the 1961 Connecticut General Insurance Company "Symposium of Issues and Challenges of Air Transportation", the future importance of air freight was stressed. In 1961 only 0.05% of the total inter-city freight was moved by air. This amounted to a billion ton miles in 1961. The reasons for the small percentage were that, because of limited capacity, air freight service was unreliable and costly. It was noted that the larger jets were quickly increasing capacity, causing pressure for the airlines to compete in the freight business. The more imminent developments of the 747 and C5A aircraft mean that freight may in the future have to be the prime business of the airlines. The 1961 prediction was that, after doubling in the previous six years, domestic air freight traffic would show a 20-30% yearly increase in the future and even more in overseas traffic. Commercial air freight at that time was growing nine times faster than passenger travel. Military transport, not considered a part of commercial air freight, had an equal volume to commercial transport in 1961. The military was conducting research into increased uses of air freight, and it was noted that a military conflict would step up this research. The Post Office, largest commercial user, was concerned with the rapid deterioration of rail service and had been considering a much larger use of air transport.

The particular concern to Ventura County is the probability that air freight demands could far surpass population and industrial rates of growth for the County. The concentration of air freight traffic has previously been in the Northeast and Midwest of the U.S. More concentration can be expected in the West in the future. The largest users to date have been aircraft, electronics, office machines and

automotive industries. Since Southern California is a major center for these types of industries, much increase in air freight traffic can be expected in the region. Assuming that this is the type of industry that concentrates in Ventura County in the future, a large demand for air freight service can be projected for the County.

Given a County population projection for the year 2000 of about one-third the number of people now in Los Angeles County, a minimum forecast of total commercial air freight demand would be 25 pounds of freight and mail per person, or 58,000 tons a year. This is an increase of 425 times the 1965 air freight demand at the Ventura County Airport. This is also comparable to doubling the San Diego present demand because Ventura County population of the year 2000 is projected to be twice the present population of San Diego County. In view of predictions of vastly increased use of air freight throughout the country, a more useful projection of air freight demand in Ventura County may be 50-100 pounds per person, or about comparable to present day LAX demand. This could mean a demand of 232,000 tons a year on the Ventura County Airport.

This report assumes that the Ventura County Airport will become one of an integrated series of major airports in Southern California, much like the situation presently around New York City. The rate of passengers per population will, at a minimum, match the present rate in San Diego, and could easily meet or exceed the present LAX rate. Based on the year 2000 population projection, the Ventura County Airport could be called upon to handle between 900,000 and 1,800,000 passenger departures a year. This compares to a present passenger traffic, arrivals and departures, of about 10,000 per year.

TABLE 19

PROJECTIONS OF EMPLOYMENT BY INDUSTRY FOR 5-COUNTY REGION

Industry	Ventura County % 1965	Los Angeles County % 1965	5-County % 1965	Los Angeles County %1975	5-County %1975
Agriculture Fishing Forestry	11.8	.5	1.4	.3	.9
Mining	2.7	--	--	--	--
Construction	6.2	5.6	6.2	5.6	6.2
Manufacturing	13.8	27.9	26.4	24.8	24.5
Transportation Communication Utilities	3.8	5.5	5.3	5.3	5.0
Trade	20.7	22.3	22.0	22.7	22.0
Finance Insurance Real Estate	3.0	5.9	5.5	6.5	6.0
Services	14.9	20.0	19.6	21.8	20.9
Government	23.1	11.8	13.0	12.7	14.1
Other	--	.5	.7	.4	.5
Employment/ 1000 Population	279*	401	362	411	370

*This figure is a 10 year low and reflects a strong population surge in that year; 10 year average to 1966 is 321 employees/1000 population.

TABLE 20

% OF MANUFACTURING/TOTAL EMPLOYMENT

	1950	1954	1958	1962	1963
United States	25.5	26.8	25.0	24.9	24.8
California	18.3	25.3	21.9	22.3	22.1
5-County	22.7	27.9	27.4	27.5	27.2
Los Angeles-Long Beach Metropolitan	24.0	29.6	29.4	29.3	28.9

Source: Security First National Bank
Gruen Associates

TABLE 21

1965 AIR FREIGHT/POPULATION

	Lbs. Per Population Incl. Mail	Lbs. Per Population Excl. Mail	Passenger Departures/10 Population
Los Angeles International Airport			
L. A. County Population	76.5	62.1	7.4
5-County Population	56.2	45.6	5.4
San Diego Municipal Airport			
San Diego County Population	13.3	8.6	4.0
Ventura County Airport			
Ventura County Population	2.1	.9	.3
Secondary Study Area Population	3.1	1.4	.5

Source: Los Angeles Department of Airports
San Diego Port Authority
Ventura County Airport Director
California Statistical Abstract
Gruen Associates

PHYSICAL FACTORS AFFECTING PLANNING

PHYSICAL FACTORS AFFECTING PLANNING

GEOGRAPHICAL LOCATION

Oxnard is approximately 18.3 square miles in area, located in the southern coastal region of California at longitude 119°west, latitude 34° 12' north, at the Ventura County Airport. The City is 62 miles northwest of downtown Los Angeles, 180 miles north of San Diego, and 350 miles south of San Francisco.

The City of Oxnard lies on a generally flat alluvial plain, often referred to as the Oxnard Plain, at an elevation of 45 feet above sea level at the City Hall. This plain extends approximately 14 miles inland and 7 miles on either side of the City. Mountains over 2000 feet above sea level border the plain.

Soil composition is mostly clay or sandy loam. Drainage is generally good, with certain exceptions in the Del Norte area. Compaction of 3 to 5 thousand pounds per square foot is obtainable, and piling is necessary in some coastal areas.

The deep water canyon at Port Hueneme provides a navigable waterway for the commercial port and quiet water for recreational boating. The deep water canyon at Point Mugu also provides an excellent means of disposal of sewage and industrial wastes.

CLIMATE

Ocean winds normally change the air in the Santa Clara River Valley twice a day. On the other hand these breezes create a temperature inversion layer somewhat lower than the one in the Los Angeles basin.

The climate in the City of Oxnard is influenced by its close proximity to the Pacific Ocean. Winters are mild with some

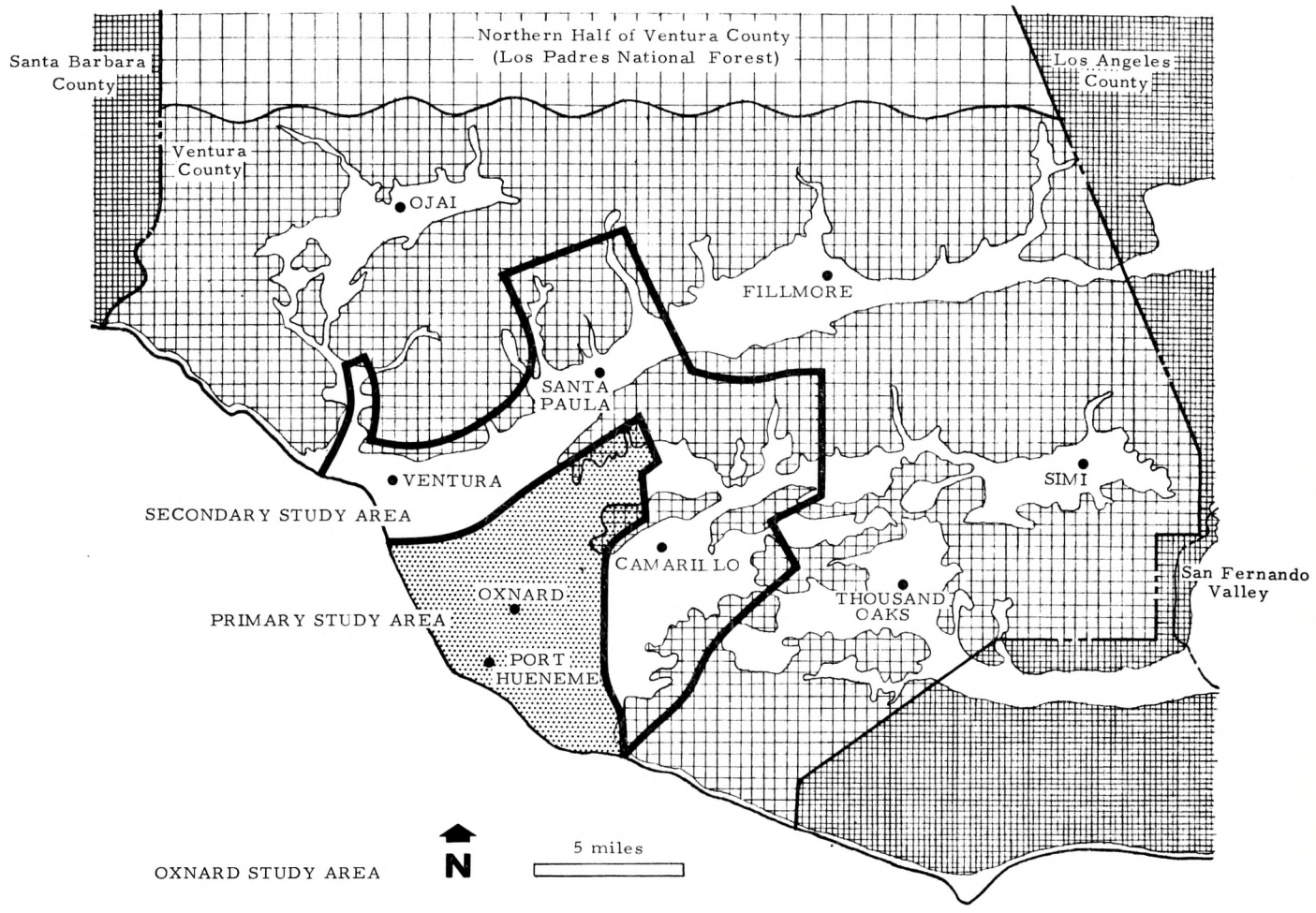

Northern Half of Ventura County
(Los Padres National Forest)
Santa Barbara County
Ventura County
Los Angeles County
OJAI
FILLMORE
SANTA PAULA
VENTURA
SIMI
SECONDARY STUDY AREA
CAMARILLO
OXNARD
PRIMARY STUDY AREA
THOUSAND OAKS
San Fernando Valley
PORT HUENEME
N
5 miles
OXNARD STUDY AREA

Figure 20

rain; summers are cool and dry. The average temperature ranges from 72° high to 48°low. January averages a high of 67° and a low of 41°; while July has a high of 74° and a low of 55°. The average rainfall is 14.75 inches, and the average humidity is 68*.

Land Use and Zoning in the Study Area

COMPARISON OF EXISTING LAND USE TO EXISTING ZONING

The Summary Sheet, Figure 2, defines the amounts of land presently used in relation to the various zoning categories. There are approximately 50,000 acres in the Primary Study Area: Almost 33,000 acres are devoted to agriculture and over 6,000 acres are vacant, leaving approximately 11,000 acres in other uses. 13,000 acres are in the City of Oxnard and almost 3,000 acres in the City of Port Hueneme - including about 1,600 acres in Port Hueneme within the jurisdiction of the U.S. Navy.

An analysis of specific land uses in Oxnard and Port Hueneme reveals that agriculture is the largest single land use, as it is in the entire planning area, covering approximately forty percent of the land. Vacant land is the second largest w th some nineteen percent, and single family residential use is third, using some eighteen percent of the land. Relating the land use to zoning, almost one-third of the land zoned R-1 for single family residential is presently used for agriculture, and ten percent of the R-1 zoned land is vacant.

An examination of the industrial zoned land indicates that although there are some 2,100 acres presently zoned M-1, M-2, M-3, and MPD in Oxnard and Port Hueneme, only about twenty-seven percent is actually used for manufacturing purposes. The remaining "M" zones are divided among vacant land, which accounts for approximately forty percent of the land, agriculture at twenty-one percent of the land, and the balance, or twelve percent, divided into miscellaneous land uses.

* Oxnard Chamber of Commerce
See Appendices 1 & 2 - Climatological Summary

SUMMARY SHEET: EXISTING LAND USE AND ZONING

CATEGORY	PLANNING AREA %	PLANNING AREA ACRES	OXNARD %	OXNARD ACRES	HUENEME %	HUENEME ACRES	A-O	C-O	C-R	R-1	R-2	R-3	R-4	RBI	C-1	C-2	M-1	M-2	M-3	RPD	CPD	MPD
Residential																						
Single Family	4.88	2,424.7	14.5	1,645.9	10.9	306.9	.2	-	-	1,727.0	35.8	55.5	3.9	23.7	1.4	19.2	6.6	2.4	-	73.7	2.0	1.4
2-4 Family	.6	332.7	1.3	149.9	1.0	28.8	-	.4	-	24.9	46.7	73.1	2.2	-	1.6	12.2	1.9	2.0	-	12.9	.8	-
Multiple Family	.4	172.6	.9	99.0	1.2	36.2	-	-	-	2.1	3.8	80.5	17.1	-	2.5	16.8	1.7	1.8	-	7.2	1.7	-
Transient Lodging	.3	161.4	.9	107.1	.2	4.8	-	-	-	.4	-	13.7	1	-	-	17.4	24.7	1.0	18.9	-	35.7	-
Commercial	.9	455.8	3.4	390.4	.5	14.3	-	.6	-	4.0	.3	14.8	2.5	-	8.0	224.9	44.5	33.0	.8	3.7	66.5	1.1
Industrial	2.6	1,304.4	5.1	572.0	1.1	30.0	-	-	13.6	4.1	-	.8	.5	-	-	21.7	116.8	312.7	-	-	-	131.8
Agricultural	65.5	32,667.2	35.3	4,010.4	10.9	307.3	2.3	-	1,580.4	944.4	69.0	129.2	9.0	-	8.1	152.1	69.4	381.0	-	896.1	27.0	49.7
Schools	1.4	677.5	4.5	511.6	1.2	35.6	-	-	209.1	27.6	295.5	3.8	.8	-	-	.1	-	-	-	10.3	-	-
Parks	.7	352.0	2.3	255.0	.8	22.4	2.7	-	194.9	20.4	31.1	16.1	-	-	-	2.7	9.5	-	-	-	-	-
Public facilities	.2	101.7	.7	81.4	.1	2.9	-	-	-	1.8	2.3	46.0	1	-	-	6.8	4.6	22.4	-	3	-	-
Institutional	.6	365.3	.4	46.0	.3	8.6	-	-	-	13.7	9.2	13.1	1.3	-	1.3	8.5	3.9	-	-	3.6	-	-
Vacant	12.4	6,172.5	16.4	1,860.9	5.5	155.9	10.4	2.0	191.7	335.8	73.7	184.4	31.3	77.7	15.5	133.0	111.4	719.9	4.0	78.7	47.1	.2
Net Total	90.48	45,187.8	85.7	9,729.6	33.7	953.7	15.6	3.0	2,189.7	3,106.2	567.4	631.0	68.8	101.4	38.4	615.4	395.01	1,476.2	23.7	1,086.5	180.8	184.2
				10,683.1																		
Dwelling units (City of Oxnard only)			D.U. 18,049*				1	8	32	9,965	1,014	3,423	919	243	32	539	378	55	-	1,222	218	-
Zone % (Oxnard and Hueneme)			100%				.14%	.02	20.5	29.1	5.3	5.9	.63	.94	36	5.8	3.7	13.8	.21	10.2	1.7	1.7
Streets	5.4	2,676.1	13.2	1,503.8	7.6	215.9																
Railroad R.O.W.	.3	131.1	.5	52.6	.2	4.3																
Utilities	.5	225.8	.6	63.0	-	-																
Flood Control	.02	8.4		-	.3	8.4																
Total	96.7	48,229.2	100	11,349.0	42	1,182.3																
Military	3.3	1,643.8	-	-	58	1,643.8																
GRAND TOTAL	100	49,873.0	100	11,349.0	100	2,826.1																

* Total D.U. as of June 1, 1967 - Rev. 18,481, according to Building Department records.

Figure 21

RECREATIONAL

"The General Plan for Regional Parks, Shoreline Development, and Riding and Hiking Trails," dated April 1965, and prepared for the Ventura County Planning Commission by the Ventura County Planning Department, is a study of existing and proposed regional recreation facilities within Ventura County.

Those facilities which are within the Oxnard Planning Area are discussed below.

REGIONAL PARKS

McGrath Beach State Park, located just south of the Santa Clara River and north of the Mandalay steam plant along Harbor Boulevard, has a land area of 295 acres. This park provides day-use facilities and accommodates overnight camping.

Hollywood Beach and Silver Strand Beach, the two largest County beach parks, cover an area of 94 acres. Presently, the Ventura County Planning Department has studies underway to lessen the parking problem at these two beaches.

Channel Islands Harbor is owned and operated by the Ventura County Department of Airports and Harbors. It occupies an area of 313 acres, of which 83 acres are land and 230 acres are water. Facilities include public beaches, public launching, boat repair, restaurants, automobile and boat trailer parking. At the present time, there are approximately 600 boat slips with room for another 1200 to 1800 when needed. In addition, there are several new recreational facilities planned for the Oxnard area. A new 7,350 acre state park, Point Mugu State Recreation Area, is to be located near Pt. Mugu, including La Jolla and Big Sycamore Canyons and the connecting beaches. To be financed out of State funds this park, according to present plans, will ultimately contain 2,330 camping units; 775 picnicking units; and parking for 3,000 cars on the beach.

The proposed Oxnard Park is located at the westerly end of the Ventura County Airport and would contain approximately 50 acres of regional park facilities for the City of Oxnard.

The proposed Santa Clara River - Oxnard Park is subject to inundation and, therefore, could preclude development of any permanent structures, unless flood control protection is undertaken. The size is approximately 400 acres at present.

The Ventura County Planning Commission has proposed an inland waterway connecting the Channel Islands Harbor to the Ventura Marina some five miles away.

In addition to the various City, County, and State parks, the Federal Government controls the Los Padres National Forest, covering some 516,000 acres to the north of Oxnard. This forest contains the Sespe Wildlife Area. The Federal Government is also studying the possibility of declaring the Channel Islands a National Monument.

LOCAL RECREATION FACILITIES

The City of Oxnard now has six neighborhood parks, two district parks and one community park site. One of the district parks includes a city-wide facility (the auditorium and recreation center). The City has two special purpose parks: the swimming beach at the marina and the plaza in the Central Business District. A six-acre neighborhood park site has been set aside near the beach.

Four of the neighborhood parks are located adjacent to elementary schools.

The City is presently considering purchase of two additional neighborhood park sites and one additional community-regional park site.

The following chart summarizes recreation facilities administered by the City:

OXNARD RECREATION AND PARK FACILITIES

BECK MEMORIAL PARK - 8.47 acres - Kamala & C Streets

Tennis courts
Adult baseball field, lighted
Flag football field
Wading pool
Basketball court
Funland
B.B.Q. pits
Supervised playground

CARTY COMMUNITY PARK - 5 acres - Zion and C Streets

B.B.Q. pits
Supervised playground
Funland

COLONIA MEMORIAL PARK - 9.97 acres - Juanita & First Streets

Recreation building
Basketball and volleyball courts
Flag football and soccer field
Two softball diamonds
Adult baseball field, lighted
Two Grass patio areas with B.B.Q. pits
Wading pool
Funland
Supervised playground

CHANNEL ISLANDS HARBOR PARK - 4 acres - Channel Islands Harbor

Swimming beach

COMMUNITY CENTER PARK - 21 acres - Ninth and Hobson Way

Community Center - 12,890 square feet
Auditorium - 28,152 square feet
Multi-purpose Room - 10,173 square feet
Center built in 1960 and 1967, other facilities included in Center are listed below:

- Youth center
- Flag football fields
- Wading pool
- Basketball court
- B.B.Q. pits
- Horseshoe courts
- Supervised playground
- Meeting rooms
- Kitchen
- Funland

DURLEY COMMUNITY PARK - 11 acres - Hill & H Streets

- Youth Center
- Little League
- Pistol range
- Basketball court
- Supervised playground
- B.B.Q. pits
- Funland

EASTWOOD MEMORIAL PARK - 4.28 acres - F & Fernwood Streets

- Little League
- Basketball court
- Funland
- Supervised playground
- B.B.Q. pits
- Wading pool

LATHROP MEMORIAL PARK - 2.96 acres - Guava & Hemlock Streets

Wading pool
B.B.Q. pits
Funland
Supervised playground

PLAZA PARK - 1.72 acres - Fifth & C Streets

THOMPSON COMMUNITY PARK - 3 acres - Santa Lucia Avenue

Basketball court
Supervised playground
Funland

OXNARD SHORES PARK - 6 acres - undeveloped

HOUSING AUTHORITY - 1.5 acres - Pleasant Valley Road

OXNARD HIGH SCHOOL

Swimming pool
Gymnasium
Tennis courts

CHANNEL ISLANDS HIGH SCHOOL

Gymnasium
Tennis courts

SANTA CLARA HIGH SCHOOL

Gymnasium

FREMONT JUNIOR HIGH SCHOOL

Tennis courts
Basketball court
Little League

DRIFFILL SCHOOL

Flag football fields
Adult baseball field, lighted

ELEMENTARY SCHOOL PLAYGROUNDS - Each 5 acres

Brittell - Summer program only
Hathaway - Summer program only
Harrington
Haycox - Summer program only
Larsen
Marina West
Ocean View - Summer program only
Rio Lindo
Sierra Linda

OTHER PARK FACILITIES

In addition to City facilities Oxnard residents also use the Bubbling Springs Community Park, a fishing pier, a beach park in the City of Port Hueneme; and a beach park at the unincorporated communities of Hollywood Beach and Silver Strand also get considerable use.

In addition, the recreation facilities, including golf courses, at the naval reservations at Port Hueneme and Point Mugu, supplement the city recreation facilities for a great many Oxnard residents.

PUBLIC SCHOOLS

Public schools in the Oxnard Planning area are the responsibility of six school districts: the Oxnard High School District, the Oxnard Elementary School District, the Ocean View Elementary School District, Rio Elementary School District, Hueneme Elementary School District, and the Mesa Union School District. These districts are separate public agencies and are not under the jurisdiction of any municipality.

The following charts summarize statistics pertinent to elementary and secondary schools in the study area:

HUENEME ELEMENTARY SCHOOL DISTRICT

School	Number of Classrooms	Enrollment - Year Ending 1963	1964	1965	1966	1967
Haycox	20		557(K-6)	662(K-6)	629(K-5)	632(K-5)
Hathaway	20	622(K-6)	630(K-6)	750(K-6)	638(K-5)	602(K-5)
Larsen	16	699(K-6)	668(K-6)	720(K-6)	658(K-5)	719(K-5)
Sunkist	20	858(K-6)	848(K-6)	854(K-6)	759(K-5)	798(K-5)
Hollywood Beach	7	215(K-6)	221(K-6)	242(K-6)	190(K-6)	199(K-6)
Hueneme	16	600(K-6)	577(K-6)	532(K-6)	554(K-6)	539(K-5)
Bard	20	586(K-6)	547(K-6)	661(K-6)	561(K-6)	553(K-5)
Parkview	20	689(K-6)	722(K-6)	701(K-6)	747(K-5)	731(K-5)
E. O. Green	34	884(7-8)	1018(7-8)	1071(7-8)	945(6-8)	1001(6-8)
Blackstock	31				868(6-8)	947(6-8)
Williams	10	Opens fall of 1967, Grades 1 through 5				

SOURCE: Ventura County Superintendent of Schools,
Anna Spencer - Secretary

OXNARD HIGH SCHOOL DISTRICT

(Grades 9 through 12)

School	No. of Rooms*	Enrollment - Year Ending 1963	1964	1965	1966	1967	Oct. 1967	Fall 1968	Capacity
Hueneme	80	2,047	2,328	2,303	2,357	2,169	2,210	2,235	2,400
Oxnard	85	1,556	1,747	1,862	2,045	1,730	1,794	1,800	2,550
Channel Islands	61					1,300	1,327	1,450	1,830
Rio Mesa	43				644	841	932	1,000	1,300

* Not Included: Library, Cafeteria, Gym, Two Activity Rooms, Field House, Locker Rooms.

RIO ELEMENTARY SCHOOL DISTRICT

School	Grades	Number of Classrooms	Enrollment - Year Ending 1963	1964	1965	1966	1967
El Rio	K-6	17	456	466	364	440	422
Rio Lindo	K-6	17			369	377	406
Rio Plaza	K-6	20	600	607	572	519	508
Rio Real	K-6	20	652	662	534	490	508
Rio Del Valle	7-8	16	415	439	456	446	456
Rio Vista*	2-3		114	100			

* Rio Vista is located in Nyeland Acres and is now leased out for handicapped children.

SOURCE: Mr. Charles Turk, Assistant Superintendent.

OCEAN VIEW ELEMENTARY SCHOOL DISTRICT

School	Grades	Number of Classrooms	Enrollment - Year Ending 1963	1964	1965	1966	1967
Ocean View	K-8	23	610	610	611	715	657
Laguna Vista	K-5	21	318	408	485	636	609
Tierra Vista	K-5	15					242

District feels that an additional school will be needed by September, 1969. Its general location: between Pleasant Valley Road and Hueneme Road east of the railroad tracks.

SOURCE: Mr. Roy M. Marrs, Superintendent

MESA UNION SCHOOL DISTRICT

The District presently has one school covering Grades K-8. The plant consists of 13 classrooms and 420 students.

OXNARD SCHOOL DISTRICT ENROLLMENT

EIGHTH SCHOOL MONTH

4-19-68

Elem. Rooms	School	KDG.	T	1ST	T	2ND	T	3RD	T	4TH	T	5TH	T	6TH	T	TOTAL 1 - 6	AVG.	7TH	8TH	ATC	EMR	TMR	E. H.	LDG.	P.	T.
13	Brittell	M 60	2	55	2	60	2	53	2	67	2	55	2	62	2	352/ 12	29+								412/	14
20	Curren	M 68	2	69	2*	86	3	76	2*	68	2	97	3	103	3	499/ 16	31+							/1	567/	19
26	Driffill	M 132	5	113	4	76	3	92	3	79	3	84	3	69	2	513/ 18	28+			27/1	12/1	45/5	11/1		740/	31
13	Elm	M 70	2	57	2	73	2*	70	2*	65	2	46	1*	45	1*	356/ 12	29+								426/	14
19	Harrington	M 75	2*	65	2*	52	2	60	2	114	4	65	2	94	3	450/ 15*	29							/1	525/	19
20	Juanita	M 103	4	89	3	65	3	77	3	58	2	58	2	59	2	406/ 15	27				53/3				562/	22
24	Kamala	M 122	4	122	5	103	4	104	4	61	2	93	3	65	2	548/ 20	27+								670/	24
26	Marina West	M 130	5	105	4	83	3	115	4	98	3	101	3	77	3	579/ 20	28+							/1	709/	26
22	McKinna	M 114	4	67	2*	81	3	73	2*	92	3	82	3	86	3	481/ 17	28+				34/2			/1	629/	24
21	Ramona	M 117	5	102	4	85	3	73	3	84	3	76	3	63	2	483/ 18	26+								600/	23
26	Rose Avenue	M 170	6	226	9	103	4	79	3	65	2	66	2	66	2	605/ 22	27+								775/28	
23	Sierra Linda	M 105	4	85	3	80	2*	69	2*	81	3	76	3	89	3	80/ 17	28+						8/1		593/	22
29	Fremont																	(33*) 431	413		18/1			/1	862/	35*
25	Haydock																	(32) 431	330		36/2			/2	797/	36
	TOTAL	M 1266	45*	1155	43*	947	35	941	34	932	31	899	30*	878	28*	5752/202*	28+	(65*) 862	742	27/1	153/9	45/5	19/2	/7	8867/337.	5

* One-half Teacher
M 190-Minute Kindergarten

PUBLIC SERVICES

Police

Oxnard provides police protection and also furnishes jail facilities for ninety inmates in an area of 19,300 square feet on the first floor of the City-County Building located in the Civic Center. As of December 1967, there were ninety-six people employed in the Police Department.

Fire Stations

Oxnard maintains three fire stations: Station #1 in the Civic Center, Station #2 on Pleasant Valley Road, and Station #3 below Wooley Road.

The table below lists the statistics on each of these stations.

	STATION #1	STATION #2	STATION #3
Location	206 W. 2nd St.	Pleasant Valley Road	150 Hill St.
Land Area	21,370 sq.ft.	31,200 (13,600 vac.)	28,500 (15,000 vac.)
Floor Area	9,000 sq.ft.	3,750 sq.ft.	2,630 sq.ft.
On Duty Employed	8	5	5
Year Built	1950	1964	1954
Equipment	Snorkel, pumper, reserve pumper	Pumper	Pumper, reserve pumper

The City has a Class IV insurance rating; however, it is near to a Class V rating due to the lack of a city-wide alarm system and another fire station.

Library

The present library, constructed in 1963, is located in the Civic Center. The library is owned and operated by the City of Oxnard. The building contains approximately 13,400 square feet, housing over 80,000 volumes, with expansion possibilities to 20,500 square feet to house 110,000 volumes.

In addition, the City maintains a bookmobile service as well as recordings, photo-copy services, and a micro-film reader. The library is staffed by sixteen people (10 full-time and 6 part-time).

Transit System

The City-owned Oxnard Municipal Transit Line provides bus service. For additional information see paragraph titled "Public Transportation" on page I-75.

Refuse Collection

Garbage and trash pickup are provided by the City on a weekly basis in residential areas for a charge of $1.25 per month per dwelling. The City refuse service also serves all commercial and industrial establishments according to their individual requirements.

Health Service

Health inspection service is provided by the City through a contract with the County of Ventura.

City Equipment Yard

The City presently owns two equipment yards, their locations and uses are shown below:

-- One is located on 3rd Street just east of the Southern Pacific Railroad right-of-way on a .239 acre parcel. The site contains a water plant constructed in 1965, and includes a warehouse, pumping plant and storage yard.

-- The other contains 10.12 acres located on the northeast corner of Pacific Avenue and Wooley Road. This site is presently used for transit storage, equipment maintenance, and general building maintenance. The site is also used for Parks Department storage in addition to street and refuse equipment storage.

Street Lighting

The City of Oxnard presently maintains the street lighting within the City. The Southern California Edison Company offers free installation on existing poles; however, there is a charge for ornamental poles. On all new subdivisions, the subdivider is required to pay for and install street lights on all streets within the subdivision. In addition, where improvement of arterials or collectors is required, the subdivider would be required to install the approved fixtures.

The existing City standards for street lighting are shown in the following chart:

Residential - 7000 lumens mercury vapor lamps

Select System Streets -
- 11,000 lumens mercury vapor lamps

Major Roads and High Value Areas -
- 20,000 lumens mercury vapor lamps

Other Services

Additional services which are provided by the City for its residents include:

Weed Abatement
Engineering
Building and Safety Inspection
Planning
Public Parking
Street and Sidewalk Maintenance
Permits and Licenses

HOSPITALS

There are two hospitals in the City of Oxnard: St. John's Hospital and Oxnard Community Hospital.

St. John's Hospital, which is operated by the Sisters of Mercy, is a modern facility containing 270 beds with a 30-bed addition being developed. In addition, there is a 50-bed extended care facility. The hospital is presently running at 60 percent capacity. In addition to these facilities the hopsital has its own heliport and research facilities including a Cardiac Research Unit and a Sea Research Unit leased by Point Mugu Naval Base.

Oxnard Community Hospital, privately owned and operated, contains facilities for 48 beds on the existing site. A foundation has been established to investigate the direction in which the hospital will expand and what services are required. Tentative plans are being prepared for expansion to the south of the existing site; however, the amount of expansion and phasing is under study.

DRAINAGE FACILITIES IN THE STUDY AREA

"The Watershed Work Plans for the Beardsley Watershed* and The Revolon Watershed*", dated December 1963, discuss the watershed areas involved, including alignment and proposed configuration. These reports cover an area containing a total of 38,200 acres, of which approximately 3,200 are subject to flood hazard.

The Revolon watershed is the lower part of the Beardsley Wash-Revolon Slough drainage area which includes approximately 20,500 acres. Schedule for construction is indefinite because of federal budgetary uncertainties. The project will be constructed from the ocean northward in project increments.

The Beardsley Watershed, about 17,700 acres, is the upper portion of the Beardsley Wash-Revolon Slough drainage area. It will be the last increment constructed.

The drains within these watersheds are presently designed for agricultural land use. In the event this land is urbanized, an estimated additional thirty feet of right-of-way may be required. Although this additional design requirement may not necessitate widening the drains, berms would probably be required.

Plans for a West Wooley Road drain have been adopted and are soon to be constructed.

There are additional general drainage problems in the planning area which may be eligible for Federal assistance (for projects to resolve these problems).

* Ventura County Flood Control District and Calleguas Soil Conservation District.

PRELIMINARY FLOOD PLAIN (APRIL 1968)

- 2% FREQUENCY FLOOD (1 IN 50 YRS.)
- 1% FREQUENCY FLOOD (1 IN 100 YRS.)
- PROJECT STORM
- FREEWAY
- ARTERIAL
- INTERCHANGE
- SCENIC HIGHWAY
- RAILROAD
- STUDY AREA BOUNDARY
- CITY LIMITS BOUNDARY
- PARTIAL INTERCHANGE
- GRADE SEPARATION

OXNARD GENERAL PLAN

GRUEN ASSOCIATES ARCHITECTURE · PLANNING · ENGINEERING

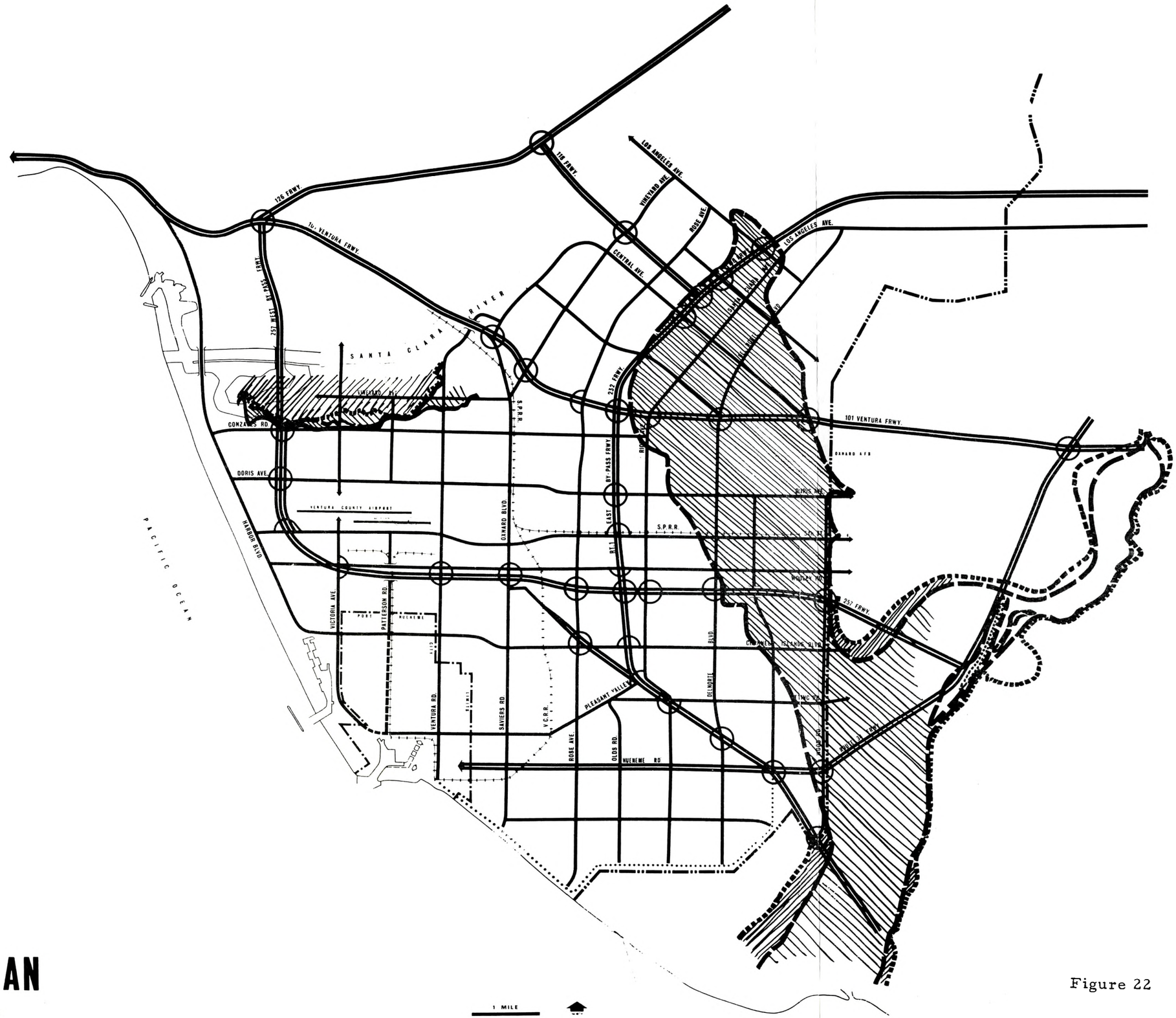


Figure 22

INDUSTRIAL DEVELOPMENT

Approximately 2,000 acres of land within Oxnard city limits are presently zoned for industrial uses. Of this amount, approximately 1,500 are zoned for heavy industry. About sixty percent of the industrially zoned land is vacant, vacant areas ranging in size from one-half to 300 acres. Prices for undeveloped land during 1965-66 ranged from $10,000 to $22,000 per acre.

Several industrial tracts have been or are being developed in the City, including Ventura County Industrial Park, Maulhardt Industrial Park, McGrath Industrial Park, Statham Industrial Park, and a new industrial development in the Ormond Beach area. The parks are presently zoned M-1 and M-2; airport-oriented industrial land, some with direct commercial airport access, is zoned M-1. Available acreage for heavy industrial, zoned M-3, has ocean outfall sewage and commercial harbor access. Large areas adjacent to present industrial sites have been reserved for light, medium and heavy industry. These can be zoned and annexed into the City when needed.

There are approximately 2,733,450 square feet in gross industrial floor area, with 2,724,650 square feet on the first floor and 8,800 square feet on the second floor. The floor area was measured from the roof line; actual usable area is somewhat smaller, also the second floor area includes the square footage in additional floors.

*Sources: Standard Industrial Survey Summary Report - Nov. 1966
"An Area Inventory of the City of Oxnard" = Southern California Edison Company - April 1967
Gruen Associates

Industrial development in the City is diversified, including electrical machinery and electrical equipment, transportation equipment, non-electrical machinery, metal fabricating, apparel, steel and aluminum forgings, paper, chemical, plastics, food processing, hydraulic equipment, engineering aerospace and medical and precision instruments.

The largest manufacturing firms in the community are:

		Employment	Products
1.	Food Manufacturing (18 food processing plants)	2,300	Vegetables & citrus
2.	Raytheon Company	750	Missile components
3.	Abex	650	Airborne hydraulic equipment
4.	Statham Instrument Corp.	550	Scientific instruments
5.	Kaiser Aluminum & Chem. Corp.	200	Aluminum forgings
6.	Allis-Chalmers Company	150	Farm equipment
7.	Dual-Wide, Inc.	123	Trailers & Mobile Homes
8.	Coastal Chemical Company	100	Agricultural chemicals
9.	Architectural Fiber Glass	90	Planter manufac.
10.	Arcturus Mfg. Corp.	90	Special heavy forgings

11. Allen Products Co.	75	Pet Food products
12. Sherry Lynn of California	65	Women's apparel

Source: Oxnard Chamber of Commerce

Although food processing plants traditionally have been the largest single employers in the Oxnard area, employers in technical and scientific fields are hiring increasing numbers of people. Today food processors employ 2,300 people, manufacturers in technical and scientific fields, 2,000.

POPULATION, INCOME AND EMPLOYMENT IMPLICATIONS

Presently, the percentage of the population employed in manufacturing in Ventura County and more particularly in the Oxnard Planning Area is only 13.8%. This is below the California average which is 22.1%. This is primarily due to a significant portion of the population being employed in Los Angeles County.

Since manufacturing employment is generally tied closely to the population growth of a region, as population increases the needs and opportunities for employment will greatly increase within the area.

The population of the Primary Study Area, with its current population of slightly over 100,000 persons, is on the verge of a great expansion. By the year 2000, the population is expected to be from 550,000 to 730,000 people.*

* Gruen Associates - Economic Base Studies Report

REVENUES, ASSUMING ULTIMATE DEVELOPMENT

Presently, percentage of total manufacturing employment @ 13.8% in Ventura County is below that of California @ 22.1%; this is primarily due to the fact that many of the citizens of Ventura County work outside of the County, primarily in Los Angeles County.

As the industrial employment rises in Oxnard, this percentage should change. It is conservatively estimated that the percentage will be at least at the State level of 22.1% of the population in manufacturing.*

COMMERCIAL AND SERVICE DEVELOPMENT

Retail

Presently, retailing in Oxnard is in a transition stage. The "downtown" area has been the traditional center of retail activity in Oxnard. The advent of shopping centers in outlying areas has caused a decline in retail sales downtown. This decline may be lessened with the advent of the Downtown Redevelopment Area Project No. 1. This project is a 38-acre renewal effort in the core of the Central Business District. See Volume II of this report under "Special Studies" for further information on the Downtown Redevelopment Area.

Service Commercial

The existing service commercial facilities are concentrated primarily along heavily travelled arteries such as Oxnard Boulevard and Saviers Road.

With the advent of the new Channel Islands Harbor some new service commercial has developed in the vicinity of the Harbor and expansion of this facility will probably contribute to additional commercial activity.

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* Gruen Associates - Economic Base Studies Report

Regional Commercial

The large shopping centers in the City of Oxnard can be presently categorized as community or sub-regional in scope. There are plans for the establishment of a regional shopping center in the "Wagonwheel" area south of the 101 Freeway. The center is expected to contain at least two major department stores.

The Buenaventura Shopping Center is located in the City of Ventura, between Main Street and Telegraph Road. This center is approximately eight miles from the intersection of Oxnard Boulevard and 101 Freeway. This is a regional shopping center with three major department stores and service shops contained in 785,000 square feet of area on 73 acres of land.

The following table is an analysis of the gross floor area by type of commercial activity.

	Retail	Wholesale	Office	Other Commercial
1st Floor	1,745,100	209,650	420,295	1,411,995
2nd Floor	10,150	-----	79,875	81,425
Total Sq. Ft.	1,755,250	209,650	500,170	1,493,420

1. Office Floor Area includes Professional and Medical Services.

2. Other Commercial includes Transient Lodging, Business Services, Automotive and Commercial Recreation.

3. Floor area was measured from roof line; actual usable area is somewhat smaller.

4. The areas shown in the second floor column also include any additional floors.

RESIDENTIAL DEVELOPMENT

Types

Presently, the types of residential development available are increasing because of the increased recreational development; however, there remains a limited number of types of housing.

Single family residences continue to be constructed, but multiple family dwellings continue to dominate the total number of dwelling units authorized. (See Figure 13) Presently, multiple units account for about one-half of the total dwelling units authorized. In 1965 approximately eighty-five percent of the dwelling units were multiple units. Table 22 shows the total dwelling units authorized and demolished since 1951.

Water recreation oriented construction has shown an increase, primarily due to the new Channel Islands Harbor. The new waterfront apartments with yacht anchorages, motel-hotel, and restaurant along with many other amenities is an example of this new water-oriented living. In addition, there is a subdivision planned north of Channel Islands Boulevard which will connect to the Channel Islands Harbor for single family waterfront development. Also, there is continued beach front residential development in the vicinity of Harbor Boulevard and Fifth Street.

Range

The range of housing units is somewhat limited in single family residential development as can be seen in the following list of subdivisions within the area of Oxnard and the prices in July, 1966.

Development	Location	Price Range
Ascot Homes	Devonshire Dr to Fremont Sq.	$24,950 to $28,950
Certified Homes	Madera Place @ Sierra Way	from $14,995
Island View Homes	Island View Ave @ Harbor Blvd.	$27,950 - $27,950
La Casa Del Sol	Ventura Rd. North Oxnard	from $26,950
Midwest Manor	Saviers Rd.	$18,000 to $19,000
Park Square	Ventura Rd. @ Gonzales Rd.	$21,500 to $24,950
Pleasant Valley Estates	Pleasant Valley Rd. @ Olds Rd.	$18,900 to $20,750
Rancho Cabrillo	Gonzales to Astoria Pl.	$21,950 to $23,500
Westland Homes	Gonzales Rd.	from $22,950
Windsor North	Gonzales Rd. off Ventura Rd.	$23,900 to $26,950
La Granda Village	Ventura & Wooley Rd.	from $25,450

Quantity

The following table lists the dwelling units in the City of Oxnard as of June 1, 1967. *

DWELLING UNITS IN CITY*

Year	S/F Bldgs.	Duplexes Bldgs.	Duplexes Units	3-8 Units Bldgs.	3-8 Units Units	9-16 Units Bldgs.	9-16 Units Units	Over 16 unit Bldgs.	Over 16 unit Units	Total Units	Demo-litions
1951	513	137	274	9	43	1	12	--	--	842	11
1952	319	54	108	14	63	2	30	--	--	520	82
1953	314	6	12	14	50	1	16	2	45	437	54
1954	382	8	16	3	13	1	11	--	--	422	23
1955	644	8	16	2	8	1	10	--	--	678	50
1956	343	2	4	3	18	--	--	--	--	365	52
1957	530	--	--	23	124	--	--	1	18	672	56
1958	704	1	2	8	47	--	--	2	40	793	46
1959	714	4	8	4	26	9	191	--	--	939	22
1960	391	5	10	11	69	--	--	3	80	550	36
1961	1053	54	108	33	217	8	117	1	24	1519	30
1962	1011	6	12	29	229	32	356	2	40	1648	93
1963	842	4	8	113	450	12	175	4	101	1576	78
1964	625	8	16	108	380	9	122	10	216	1359	47
1965	445	1	2	43	264	1	10	5	158	879	267
1966	46	--	--	19	98	7	96	3	62	302	6
Thru May 1967	148	3	6	8	48	2	20	3	60	282	9
Totals	9024	301	602	444	2147	86	1166	36	844	13,783	(962)
Prior to 1951	5029				50					5079	(2)
Less Demo-litions	(964)									(964)	
Annexed since 1960	763									763	
Total Units 6-1-67	13852		602		2197		1166		844	18,661	

* SOURCE: City of Oxnard Building Department.

EXISTING CONDITIONS - CIRCULATION

Regional Facilities

Oxnard lies in a broad plain near the mouth of the Santa Clara River about 60 miles west of Los Angeles and a few miles southeast of Ventura. El Camino Real, the first regional highway route in California, passed through what is now the northern part of the City. State Route 101, the Ventura Freeway, generally follows the line of the old highway.

The Ventura Freeway is the most important of the four freeway routes that will link the City of Oxnard with the surrounding region. It lies about two and a half miles north of downtown, and although it is a north-south highway in the State system, it is aligned east-west in this area. Through Oxnard it is a fully developed four-lane freeway, with interchanges at important road connections. Some of these interchanges are presently being reconstructed to modern standards.

Additional construction is going on northwest of the City to convert Route 101 to a freeway from El Rio to near Route 126. Within a few years this highway will be completed to full freeway standards from Ventura to Los Angeles.

State Route 1, the "East Bypass", is constructed as a four-lane freeway as far north as Wooley Road as it approaches Oxnard from the beach area to the southeast. A route has been adopted for the northward extension of this freeway on an alignment between Rose Avenue and Rice Road. Construction on this freeway will begin in the early 1970's and will be completed about 1975. The City, the State Division of Highways and Victor Gruen Associates are studying alternate interchange locations to insure good connections to the City's major street system and to the Central Business District.

The East Bypass continues northeast past the Ventura Freeway as State Route 232 to a connection with State Route 118 about two and a half miles southeast of Saticoy. State Route 118, sometimes called the Simi Valley Freeway, is an adopted freeway route from Saticoy through the Simi Valley and Santa Susana Pass to the San Fernando Valley area of Los Angeles.

Routes 118 and 232 will probably be constructed as freeways after 1975. From Oxnard they will provide an alternate route into the Los Angeles basin. They will greatly increase the accessibility of the Oxnard coastal area for the residential communities developing in Moorpark, Simi and Santa Susana, and indeed, for the San Fernando Valley as well. At its western end this route will tie the northern part of Oxnard more closely with the traditional center of the City. It will stimulate a shift in land uses from agriculture to more intensive uses.

Along the western and through the southern part of Oxnard, a fourth freeway route has been established. Construction of this freeway, State Route 257, will not take place until the period 1975-1980, and planning is in its early stages. As it shifts from a north-south to an east-west alignment it will pass between the Ventura County Airport and the U. S. Naval Construction Battalion Center near Port Hueneme. East of there it will pass to the south of downtown Oxnard. It will eventually end at State Route 34, a freeway proposed to extend from Somis, through Camarillo and southwest to State Route 1.

Freeways within urban areas serve a number of functions. They provide accessibility to the community from the region in which it is located. They absorb some of the longer local trips, relieving portions of th surface street system of the burden of this traffic. They provide a most important part of the framework for the organization of land and the uses placed upon it.

The four major freeway routes in the Oxnard area will provide an unusual level of regional accessibility. In most metropolitan areas in California, freeways will eventually be developed on a grid system, spaced about four to five miles apart. In Oxnard the spacing will be closer, on a three-and-a-half to four-and-a-half mile spacing.

These freeways will furnish opportunities to shape the kinds and intensities of land uses in the City. Precise freeway locations and points of access will have a great impact on the kind of community Oxnard will become. Oxnard is fortunate that many important freeway decisions are yet to be made. Future freeways can be planned to enhance large scale community objectives.

The future alignment of Route 257 and road connections with that highway and with the East Bypass, for instance, will have to be carefully planned to achieve two worthwhile goals. One is the proper development of, and service to, major land uses in the area, such as the Central Business District, the airport and the nearby harbor. The other is the protection of the built-in traffic-carrying and safety features of the freeway system.

Figure 23 shows the existing and planned freeway system, together with arterial highways in the area.

Travel Within The City

Ventura County's General Plan of Highways provides for the next level of arterial highways. Figure 23 . These roads are intended to satisfy a substantial part of the need for continuous, high quality traffic service throughout the planning area. These streets must provide a large traffic capacity to handle the trips between various parts of the area, and to connect to and serve the freeway system.

Land access functions of the major road system are secondary to the primary need to provide for safe, high capacity traffic movement. Most of these highways will be developed with median islands, traffic signals at intersections with other major roads, and with a limited number of local street connections. Street continuity is important to provide for ease of travel, adequate capacity and safety.

Oxnard's major street system generally follows the grid system typical of most western communities. The unusual spacing of some major highways in Oxnard, however, complicates the problem of having good access to freeways while maintaining high freeway design standards. Many arterials are spaced about three-quarters of a mile apart north-to-south, and a mile and a quarter apart east-to-west. Occasionally the close north-south spacing may require unusual interchange designs.

The flat topography of the City imposes relatively few natural obstacles to the development of a system of major streets to

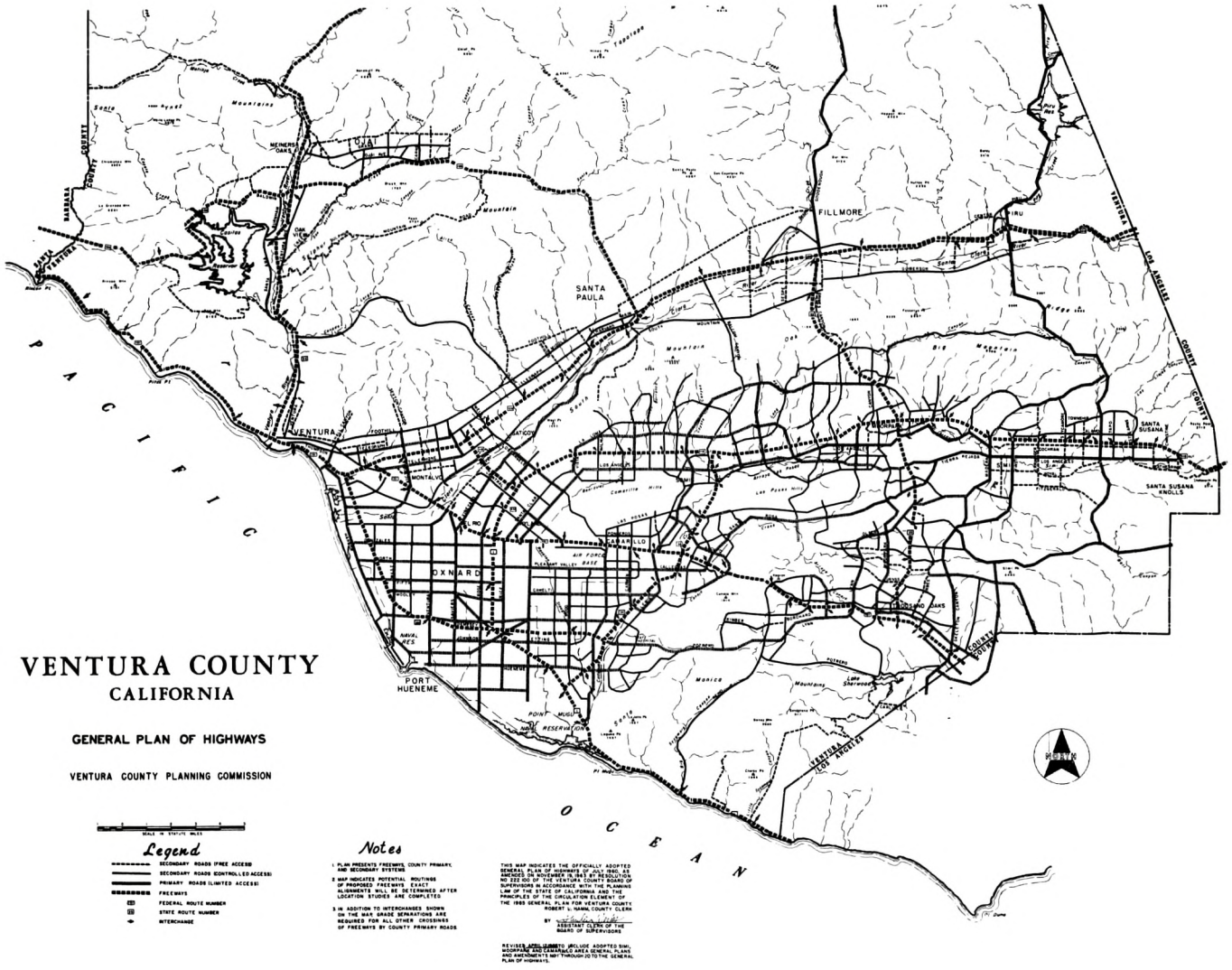

VENTURA COUNTY
CALIFORNIA
GENERAL PLAN OF HIGHWAYS
VENTURA COUNTY PLANNING COMMISSION
Legend
SECONDARY ROADS (FREE ACCESS)
SECONDARY ROADS (CONTROLLED ACCESS)
PRIMARY ROADS (LIMITED ACCESS)
FREEWAYS
FEDERAL ROUTE NUMBER
STATE ROUTE NUMBER
INTERCHANGE
Notes
1 PLAN PRESENTS FREEWAYS, COUNTY PRIMARY, AND SECONDARY SYSTEMS.
2 MAP INDICATES POTENTIAL ROUTINGS OF PROPOSED FREEWAYS. EXACT ALIGNMENTS WILL BE DETERMINED AFTER LOCATION STUDIES ARE COMPLETED.
3 IN ADDITION TO INTERCHANGES SHOWN ON THE MAP, GRADE SEPARATIONS ARE REQUIRED FOR ALL OTHER CROSSINGS OF FREEWAYS BY COUNTY PRIMARY ROADS
THIS MAP INDICATES THE OFFICIALLY ADOPTED GENERAL PLAN OF HIGHWAYS OF JULY 1960, AS AMENDED ON NOVEMBER 15, 1961 BY RESOLUTION OF THE VENTURA COUNTY BOARD OF SUPERVISORS IN ACCORDANCE WITH THE PROVISIONS OF LAW OF THE STATE OF CALIFORNIA AND THE PRINCIPLES OF THE CIRCULATION ELEMENT OF THE 1960 GENERAL PLAN FOR VENTURA COUNTY
ROBERT L. NAHAL COUNTY CLERK
BY
ASSISTANT CLERK OF THE BOARD OF SUPERVISORS
REVISED AND ADOPTED INCLUDE ADOPTED SIMI, MOORPARK AND CAMARILLO AREA GENERAL PLANS AND AMENDMENTS NOT THROUGH 20 TO THE GENERAL PLAN OF HIGHWAYS.
SANTA BARBARA COUNTY
SANTA PAULA
FILLMORE
VENTURA
OXNARD
CAMARILLO
PORT HUENEME
POINT MUGU
NAVAL RESERVATION
SANTA SUSANA
SANTA SUSANA KNOLLS
LOS ANGELES COUNTY
PACIFIC
OCEAN

Figure 23

provide adequate access and circulation. However, in the northwest part of the Oxnard area the Santa Clara River forms an uncrossed barrier for four miles between Harbor Boulevard and the Ventura Freeway. This limits the intensity of land use on both sides of the river and affects the timing of land use changes. The Ventura County Airport also interrupts north-south travel west of Ventura Road.

To the southwest the Channel Islands Harbor, the U.S. Naval Construction Battalion Center and the harbor entrance at Port Hueneme create circuitous travel for some motorists. There is no continuous coastal highway in this area; Channel Islands Boulevard and Ventura Road are used as alternate route.

There are, in effect, only two north-south major streets serving most of the Oxnard area development. These are Ventura Road and Saviers Road-Oxnard Boulevard. The latter road is a state highway which will revert to City street status as the freeway system is completed. The current Ventura County Master Plan of Highways calls for the extension of Victoria Avenue (West Road) north across the Santa Clara River to Route 101 near Montalvo. This will greatly improve access from Channel Islands Harbor to the Ventura Freeway.

In an east-west direction there are three streets providing good continuous routes. These are Gonzales Road, Fifth Street and Channel Islands Boulevard-Dempsey Road. They lie one and a half miles apart and are supplemented by streets with less continuity. These are Doris Avenue-Colonia Road and Wooley Road. Pleasant Valley Road is a northeast-southwest diagonal route connecting the Port Hueneme area to the vicinity of Oxnard Air Force Base.

The limited number of continuous routes concentrates through traffic on the few streets available. This is particularly true of the industrial traffic traveling from the Port Hueneme area to the Ventura Freeway, and on Fifth Street through the heart of the Central Business District.

Outlying portions of many major routes are a narrow two lanes in width, with road-mixed asphalt surfaces and little or no constructed foundations.

The improvement of many of these major streets will be complicated by the extensive agricultural ditch system in the area. These ditches closely parallel several major streets, such as Channel Islands Boulevard and Ventura Road. They are a mixed blessing, constituting a safety hazard for motorists who wander from the roadway, but at the same time restricting the number of intersections with these major streets. Relocating or piping these ditches will have an impact on future construction and perhaps right-of-way costs.

There are several street discontinuities which interfere with smooth traffic movement. There is no direct connection between Doris Avenue and Colonia Road at Oxnard Boulevard. These streets are on different alignments, about one block apart, and may eventually have to be connected by a new roadway at Oxnard Boulevard. There is another discontinuity on Third Street at Oxnard Boulevard in the downtown area, and misalignment of Teal Club Road and Second Street near Ventura Road.

In the Central Business District, through traffic on Fifth Street is interrupted by Plaza Park and mixes with local traffic as it goes around the Park before continuing beyond the downtown area. The left turns created by the presence of the Park interfere with pedestrian movements and are a source of local congestion. Lying in the heart of downtown, Fifth Street as a heavy through traffic route will continue to interfere with local pedestrian and bus traffic. Ways of relocating this through traffic to alternate streets are being explored.

There is a relatively undefined collector street system in Oxnard. Collectors normally distribute traffic from local streets to the arterial street system, and provide access to adjacent property. Without a collector system, or some clear road arrangement to perform this function, two conditions occur: local traffic finds "streets of convenience" which for one reason or another are attractive as connections to the major street system, and the major streets themselves bear the burden of providing a substantial amount of access to adjacent property.

Within residential areas, the development of an unplanned "collector" street may create undesirable conditions for residents. Along major streets the need for property access adds to the normal number of driveways and side streets. This in turn reduces the capacity of the major street and increases the accident potential.

There are few diagonal streets in the Oxnard area, but one of them contributes to one of the City's most vexing traffic problems. The five-way intersection of Saviers Road, Oxnard Boulevard and Wooley Road is the site of chronic peak hour congestion. A number of traffic signal and street striping improvements have been made, but the basic problem remains. There will be an opportunity to make a more complete improvement in connection with freeway development on State Route 1. At that time, it may be possible to simplify the intersection.

Volumes

The following traffic volumes were obtained in June, 1967 by the Public Works Department of the City of Oxnard.

EAST - WEST

Streets	Between	ADT*
	State Roads	
Hueneme Rd.	Fourth St. to Ventura Rd.	7,200
Hueneme Rd.	Ventura Rd. to Saviers Rd.	5,200
Saviers Rd.	Hueneme Rd. to Pleasant Valley Rd.	9,600
Saviers Rd.	Pleasant Valley Rd. to Channel Islands Blvd.	20,100
Saviers Rd.	Channel Islands Blvd. to Wooley Rd.	25,000
Oxnard Blvd.	Wooley Road to Fifth St.	29,800
Oxnard Blvd.	Fifth St. to Vineyard Ave.	27,800
Highway 1	Vineyard Ave. to Highway 101	15,400
Fifth St.	Saviers Rd. to Rose Ave.	8,600
Fifth St.	Rose Ave. to Rice Ave.	6,000
Vineyard Ave.	Highway 101 to Central Ave.	14,800

* ADT - Average Daily Traffic

EAST - WEST

Streets	Between	ADT*
Vineyard Ave.	Central Ave. to Los Angeles Ave.	7,300
Vineyard Ave.	Oxnard Blvd. to Highway 101	17,600
Los Angeles Ave.	Vineyard Ave. to Santa Clara Ave.	6,000
Los Angeles Ave.	Vineyard Ave. North	12,900
Hueneme Rd.	Saviers Rd. to Cypress Rd.	5,951
Hueneme Rd.	Cypress Rd. East	5,029
Pleasant Valley Road	"J" St. to "C" St.	13,452
Pleasant Valley Road	"C" St. to Saviers Rd.	11,730
Pleasant Valley Road	Saviers Rd. to Cypress Rd.	11,130
Pleasant Valley Road	Cypress Rd. to Etting Rd.	2,468
Channel Islands Blvd.	Victoria Ave. to Patterson Rd.	7,685
Channel Islands Blvd.	Patterson Rd. to Ventura Rd.	8,932
Channel Islands Blvd.	Ventura Rd. to "J" St.	7,287
Channel Islands Blvd.	"J" St. to "C" St.	4,085
Channel Islands Blvd.	"C" St. to Saviers Rd.	4,408
Channel Islands Blvd.	Gisler Ave. to Highway 1	4,690
Channel Islands Blvd.	Highway 1 to Rice Ave.	1,446
Hemlock St.	Victoria Ave. to Patterson Rd.	420
Hemlock St.	Patterson Rd. to Ventura Rd.	2,741
Hemlock St.	Ventura Rd. to "J" St.	2,334
Wooley Rd.	Victoria Ave. to Patterson Rd.	659
Wooley Rd.	Patterson Rd. to Ventura Rd.	1,372
Wooley Rd.	Ventura Rd. to "J" St.	6,108
Wooley Rd.	"J" St. to "C" St.	7,593
Wooley Rd.	Saviers Rd. to Rose Ave.	6,254
Wooley Rd.	"C" St. to Saviers Rd.	6,095
Wooley Rd.	Rose Ave. to Rice Rd.	3,215

* ADT - Average Daily Traffic

EAST - WEST

Streets	Between	ADT*
Fifth St.	Mandalay Beach Rd. to Harbor Blvd.	762
Fifth St.	Harbor Blvd. to Victoria Ave.	3,935
Fifth St.	Victoria Ave. to Patterson Rd.	4,226
Fifth St.	Patterson Rd. to Hobson Way	4,361
Fifth St.	Hobson Way to "C" St.	8,149
Teal Club Rd.	Victoria Ave. to Patterson Rd.	261
Second St.	Patterson Rd. to Ventura Rd.	599
Second St.	"H" St. to Oxnard Blvd.	3,227
Doris Ave.	Victoria Ave. to Patterson Rd.	848
Doris Ave.	Patterson Rd. to Ventura Rd.	1,192
Doris Ave.	Ventura Rd. to "H" St.	4,279
Doris Ave.	"H" St. to "C" St.	3,805
Gonzales Rd.	Harbor Blvd. to Ventura Rd.	4,937
Gonzales Rd.	Ventura Rd. to "C" St.	11,304
Gonzales Rd.	"C" St. to Oxnard Blvd.	5,512
So. Bank Dr.	Ventura Rd. to Highway 1	3,462
Central Ave.	Vineyard (232) Ave. to Rose Ave.	2,180
Central Ave.	Rose Ave. to Santa Clara Ave.	1,814
Central Ave.	Santa Clara Ave. to Beardsley Wash	2,145
Colonia Rd.	Oxnard Blvd. to Rose Ave.	5,259
Colonia Rd.	Rose Ave. to Rice Ave.	2,472

NORTH - SOUTH

Streets	Between	ADT
Harbor Blvd.	Santa Anna to Channel Islands Blvd.	1,697
Harbor Blvd.	Channel Islands Blvd. to Wooley Rd.	4,869
Harbor Blvd.	Wooley Rd. to Fifth St.	6,128
Harbor Blvd.	Fifth St. to Gonzales Rd.	8,910
Harbor Blvd.	Gonzales Rd. to Santa Clara River	5,623
Victoria Ave.	Channel Islands Blvd. South	5,346
Victoria Ave.	Wooley Rd. to Fifth St.	824
Victoria Ave.	Fifth St. to Teal Club Rd.	556

* ADT - Average Daily Traffic

NORTH - SOUTH

Streets	Between	ADT*
Ventura Rd.	Bard Rd. to Channel Islands Blvd.	18,077
Ventura Rd.	Channel Islands Blvd. to Hemlock St.	14,277
Ventura Rd.	Hemlock St. to Wooley Rd.	15,655
Ventura Rd.	Wooley Rd. to Fifth St.	15,513
Ventura Rd.	Fifth St. to Doris Ave.	13,378
Ventura Rd.	Doris Ave. to Gonzales Rd.	14,405
Ventura Rd.	Gonzales Rd. to So. Bank Dr.	10,003
"J" St.	Hueneme Rd. to Pleasant Valley Rd.	1,372
"J" St.	Pleasant Valley Rd. to Bard Rd.	2,862
"J" St.	Bard Rd. to Channel Islands Blvd.	4,428
"J" St.	Channel Islands Blvd. to Wooley Rd.	3,795
Hobson Way	Wooley Rd. to Fifth St.	4,591
"H" St.	Fifth St. to Second St.	3,414
"H" St.	Second St. to Doris Ave.	4,141
"H" St.	Doris Ave. to n/o Ivywood Dr.	995
"C" St.	Pleasant Valley Rd. to Bard Rd.	3,662
"C" St.	Bard Rd. to Channel Islands Blvd.	5,789
"C" St.	Channel Islands Blvd. to Wooley Rd.	7,022
"C" St.	Wooley Rd. to Sixth St.	10,851
"C" St.	Sixth St. to Fourth St.	10,940
"C" St.	Fourth St. to Second St.	10,777
"C" St.	Second St. to Doris Ave.	8,301
"C" St.	Doris Ave. to Gonzales Rd.	5,870
Rose Ave.	Wooley Rd. to Fifth St.	3,085
Rose Ave.	Fifth St. to Colonia Rd.	5,050
Rose Ave.	Colonia Rd. to Gonzales Rs.	6,518
Rose Ave.	Gonzales Rd. to Highway 1	9,249
Rose Ave.	Highway 1 to Central Ave.	2,475
Rose Ave.	Central Ave. to Los Angeles Ave.	1,238
Rice Ave.	Pleasant Valley Rd. to Channel Islands Blvd.	2,475
Rice Ave.	Channel Islands Blvd. to Wooley Rd.	4,382
Rice Ave.	Wooley Rd. to Fifth St.	4,702
Rice Ave.	Fifth St. to Colonia Rd.	5,876
Rice Ave.	Colonia Rd. to Highway 101	5,764
Santa Clara Ave.	Highway 101 to Central Ave.	3,307
Santa Clara Ave.	Central Ave. to Los Angeles Ave.	3,809

* ADT - Average Daily Traffic

Parking

The provision of adequate parking is a joint responsibility of government and private developers and businessmen. In newer areas, off-street parking is usually provided as a private contribution, required by zoning and subdivision ordinances.

In more established parts of a community government assists in meeting parking needs in several ways. It may aid in the formation of parking districts, helping businessmen to help themselves. It may undertake the development of off-street parking directly as a form of necessary public utility. Government controls the operation of all curb parking, as well.

Parking is a limited commodity in parts of Oxnard's Central Business District. A recent study estimated a shortage of up to about 1500 spaces. Local businessmen feel that lack of parking is one of their most serious problems.

Parking is permitted almost everywhere on downtown streets, with most limits set at one or two hours. Many spaces are metered. There is diagonal parking on A Street through the business district. The resulting awkward unparking maneuver leads to some congestion and delay. There is also some angle parking on Fifth Street near Plaza Park and on portions of B Street.

The City maintains several off-street lots in the downtown area. Elsewhere in the City most commercial area parking needs are met by privately constructed off-street lots. Access to these lots occasionally interferes with smooth traffic movement on arterial streets. In other cases, median islands, proven to be valuable safety features, have hindered direct access to some parcels.

The 1966 traffic study for the Oxnard Redevelopment Agency proposes the development of up to about 5,000 parking spaces in the redevelopment area. A portion of these spaces would be supplied along an alignment near the east side of B Street, extending from Third to Sixth Streets. A substantial part of the balance of spaces would be served from Oxnard Boulevard.

Traffic Control

Signalized intersections usually create the greatest delay along arterial highways. Most signals in Oxnard are fixed-time; that is, the signals operate according to a pre-set timing plan, and may not reflect changes in traffic volume demands at certain times of day. Within the downtown area they are located so as to favor north-south traffic. Although closely spaced on A Street, they can be well coordinated since the street is one-way. The plans of the Redevelopment Agency call for the closure of A Street to create a mall between Third and Sixth Streets. Fifth Street traffic progression is difficult to achieve due to closely spaced signals through the downtown area. Downtown signals are not interconnected.

Oxnard Boulevard signals, under the jurisdiction of the State Division of Highways, are among the most modern in the City, and, while pre-timed, are capable of modification to make them responsive to a range of common traffic conditions. The signal installation at Oxnard Boulevard, Saviers and Wooley Roads is the most complicated one on Oxnard Boulevard and is not coordinated with other Oxnard Boulevard or Saviers Road signals. The signal at the offset intersection of Oxnard Boulevard and Third Street is the site of substantial traffic delays.

Outside the business district most City signals are pre-timed, with the exception of those on Ventura Road. There traffic-adjusted controls modify the signal timing constantly to reflect changes in traffic demand. Consideration is being given to interconnecting these signals to improve the traffic flow along the entire route. Modern traffic signals have also been installed along Gonzales Road in conjunction with street improvements west of Oxnard Boulevard.

Railroads

The City is served by the Southern Pacific and Ventura County Railroads. The Southern Pacific is a major transcontinental railway and Oxnard lies on the Los Angeles-San Francisco main line. The Ventura County Railway is a local line, with trackage connecting the Port of Hueneme to the Southern Pacific main line.

There is only limited interference between rail operations and highway traffic. Railroad crossings in the downtown area were analyzed in a 1966 study. The study found it difficult to justify any substantial investment in grade separations there. Vehicle delay today is at an acceptable level, and could be further alleviated by local widening on the streets affected. The hazards could be substantially reduced by installation of crossing gates.

The track of the Ventura County Railroad on Wooley Road from L Street to Oxnard Boulevard will complicate any future widening of this street. Future extensions of industrial trackage may also affect street operations.

Public Transportation

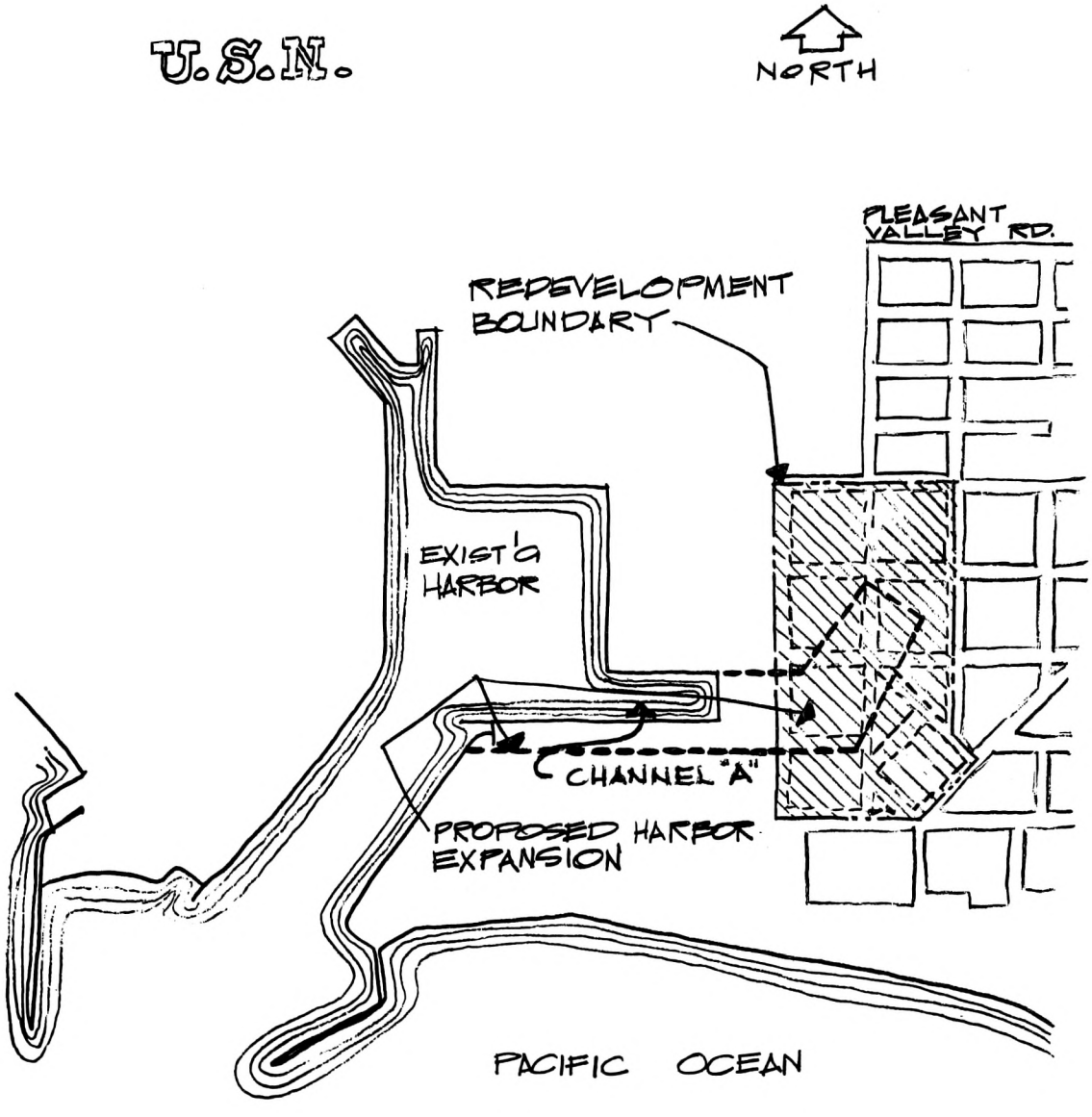
Long distance bus service is provided on a daily scheduled basis by Western Greyhound Lines. Local bus service is the responsibility of the Oxnard Municipal Transit System. The system can call on the proceeds of a five cent tax rate for financial support, but has never used the entire sum available.

The transit system operates in buses on thirty minute schedules over six routes. The "terminal" is Fifth Street and B Street, at Plaza Park.

The number of miles traveled, operating income and operating expenses have all been rising gradually for the last several years. Fares have been kept low. This undoubtedly has helped the transit system improve its passenger load.

VENTURA COUNTY AIRPORT

The Ventura County Airport is presently located west of Ventura Road and north of 5th Street, in the City of Oxnard. The airport is owned and operated by Ventura County under the Department of Airports and Harbors. The existing runway is 5,947 feet long and 100 feet wide. There are approximately 10,000 arrivals and departures annually consisting



EXISTING PORT OF HUENEME

Figure 24

primarily of small private craft. The airport is served by Air West Airlines, and more recently by Cable Commuter Airlines, on a regular schedule. See Volume II for further airport information.

PORT HUENEME HARBOR

The commercial portion of the Harbor is owned by the Oxnard Harbor District, which is a tax-supported public agency. It is jointly used by the United States Navy Construction Battalion. The Harbor is primarily engaged in the movement of bulk cargo, such as fertilizers and chemicals, with marine activities in support of offshore oil exploration and drilling starting to emerge.

There are two deep water berths for commercial shipping with plans for Harbor expansion within the next two or three years. This expansion will be made possible through the Port Hueneme Redevelopment Agency, who in turn will sell the property to the Oxnard Harbor District. In addition to deepening Channel A and the Central Basin, Channel A is to be widened to accommodate berthing for a total of five large vessels and sport fishing facilities.

UTILITY AVAILABILITY AND RATES

The City's Water Department supplies the water for the Oxnard area with a maximum pumping capacity of 64 million gallons per day. The present water consumption is 8.65 million gallons per day, supplied by six wells, five of which are on standby. In addition, the Fox Canyon and Oxnard aquifers are replenished by the United Water Conservation District and natural percolation. Oxnard also receives water from the Metropolitan Water District through its membership in the Calleguas Water District. These additional guaranteed sources, in addition to Oxnard's own sources, insure an ample present and future water supply.

The bi-monthly water rates within the City, for which no other rate is specified, are:

0 cu. ft. to	1,000 cu. ft.	$4.25 per mo. min.
1,000 cu. ft. to	20,000 cu. ft. @	.25/100 cu. ft.
20,000 cu. ft. to	100,000 cu. ft. @	.23/100 cu. ft.
100,000 cu. ft. to	600,000 cu. ft. @	.18/100 cu. ft.
over	600,000 cu. ft. @	.11/100 cu. ft.

Water main extensions for new subdivisions are designed and engineered by the City. The subdivider then installs and pays for these extensions, with a refunding agreement within the first five years should subsequent users tie into the main.

See Appendix No. 3 for Water Source and Analysis Sheet.

Location of Wells Within the City

1. Wells 1, 2, 3 & 4 located in the City Yard on 3rd Street near Southern Pacific Railroad Tracks.

2. Well #5 is on the northeast corner of "C" Street and Robert Avenue.

3. Well #6 is on the southwest corner of Hill and "G" Streets.

4. Well #7 is on the northwest corner Channel Island Boulevard and the railroad.

5. Well #13 is on the northwest corner "K" and Third Streets.

6. Well #14 is north of Fifth Street, east at Patterson Road.

7. Well #15 is in Wagon Wheel area, west of Buckaroo Avenue.

8. Well #12 is on Mountain View Avenue, west of Richmond Avenue.

9. Well #10 is north of Wooley Road, east of Ventura County Railroad.

Natural gas is available to the Oxnard area from the Southern Counties Gas Company. The Gas Company will satisfy all existing and future needs by using California's own supply of natural gas augmented by out-of-state sources.

The rates for natural gas service are:

General Natural Gas Service

Schedule No. G-3 Commodity Charge	per meter per month general usage	heating only
First 200 cu. ft. or less	$1.9093	$3.4200
Next 1,800 cu. ft. per 100 cu.ft.	.0834	.1046
Next 28,000 cu. ft. per 100 cu.ft.	.0768	.0768
Next 70,000 cu. ft. per 100 cu.ft.	.0693	.0693
Over 100,000 cu. ft. per 100 cu.ft.	.0652	.0652

Interruptible Natural Gas Service

Schedule No. G-50 Commodity Charge	per meter per month
First MCF, per MCF*	51.93¢
Next 800MCF, per MCF	45.93¢
Next 2,000MCF, per MCF	44.73¢
Next 3,000MCF, per MCF	43.63¢
Next 4,000MCF, per MCF	42.53¢
Next 10,000MCF, per MCF	40.32¢
Over 20,000MCF, per MCF	39.42¢

* MCF - Million Cubic Feet

Source: Southern Counties Gas Company

Electric power is furnished to the area by the Southern California Edison Company. The Mandalay 6.4 million kilowatt hydro and steam generating plant is located north of 5th Street between Harbor Boulevard and Mandalay Beach. The Edison Company plans another steam generating plant with a 750,000 kilowatt capacity at Ormond Beach in the southern portion of the City of Oxnard. Both plants have planned capability to double capacity with future construction.

Costs for varying quantities of power supplied to typical large industrial firms are given below:

Maximum KW Demand	Monthly KWH Usage	Net Mo. Elec. Bill	Av. Cost Per KWH
10,000	2,000,000	$24,318	1.22¢
5,000	1,000,000	12,409	1.24¢
2,500	500,000	6,475	1.30¢
1,000	200,000	2,699	1.35¢
500	100,000	1,424	1.42¢
300	60,000	914	1.86¢
75	15,000	292	1.94¢

Monthly KWH Usage	Net Mo. Elec. Bill	Av. Cost Per KWH
4,000,000	$36,518	0.91¢
2,000,000	18,509	0.93¢
1,000,000	9,797	0.98¢
400,000	4,028	1.01¢
200,000	2,088	1.04¢
120,000	1,313	1.09¢
60,000	764	1.27¢
30,000	419	1.40¢

Source - Southern California Edison Company

The General Telephone Company serves the City of Oxnard and the planning area. A regional office and switching center in Oxnard provides direct dialing throughout the nation. In addition to the General Telephone installation, Pacific Telephone maintains a large toll center in Oxnard to handle toll connections between the two systems.

The base rates for telephone service are:

Residential Service

$3.55 per month for a party line
$5.60 per month for a private line
$9.40 per month - Business Service

Connection charges for a residential telephone are $10.00. A business telephone is $15.00. If existing instruments remain in place, the charge is $7.00 for both residential and business.

Source: General Telephone Company

Oxnard provides domestic and industrial sewage treatment. The primary treatment plant, located on a 27-acre site off Perkins Road near Ormond Beach, has a 48-inch reinforced concrete pipe ocean outfall, extending 6,800 feet into the deep water ocean channel.

The capacity of the influent trunk sewer is 11 million gallons per day. The primary treatment plant capacity is 11 million gallons per day, with peak flows of 13 million gallons daily. Planned future expansion will handle up to 20 million gallons daily.

The monthly cost for a residence is $1.25. The sewer charges are added to the water bill.

The sewer rates are based upon the amount of water consumption. These monthly rates are as follows:

First 500 cu.ft. of water or fraction thereof	$1.25
Each additional 100 cu.ft. or fraction thereof up to and including 50,000 cu.ft.	.06
Each additional 100 cu.ft. or fraction thereof over 50,000 cu.ft. up to and including 100,000 cu.ft.	.05
Each additional 100 cu.ft. or fraction thereof over 100,000 cu.ft. up to and including 1,000,000 cu.ft.	.04
Each additional 100 cu.ft. or fraction thereof in excess of 1,000,000 cu.ft.	.02

The sewer connection charges on a one-time basis are as follows:

Basic sewer connection fee $400 per acre for developed land.
$100 per lot, on an individual basis for the first 6,000 square feet.
.80¢ per 100 square feet over 6,000 square feet or fraction thereof.

TAX RATES

Principal revenues for Oxnard are derived from taxes, subventions and grants. Property is assessed at 25.0 percent of its full market value by the Ventura County Tax Assessor. The City tax rate is determined by the revenue required for the coming fiscal year to finance the various budgets supported with property tax revenues. The tax rates for the City and County per $100.00 of assessed valuation is shown in detail in the following table:

Property Tax - Code Area 03001

City	1967-1968		1968-1969	
General Fund	$ .9824		$1.00	
Parks and Recreation	.2863		.27	
Library	.1193		.12	
Municipal Transit	.0377		.04	
Retirement	.1480		.14	
Bond Redemption	.0663		.05	
Total City Tax		$1.64		$1.62
County	1.68			
Schools	4.97			
Other	.79			
		7.44		7.44
Total City & County In Code Area 03001		$9.08		$9.06
		.22		.22
		$9.30		$9.28

Unincorporated area (in Oxnard School Districts)

Code 71006 in County	$0.65
Co. outside Oxnard School District	1.68
Schools	4.02
Other	.97
	$7.32

The estimated assessed valuation for 1968-1969 of $129,540,100.00 will provide $2,044,774.00 in property tax revenue..

OTHER TAXES

Sales Taxes

Sales taxes are a major source of revenue to the City. The General Fund Budgets receive sixty percent of the revenue from sales tax, while forty percent of the revenue is used to finance the Capital Improvement Budget. Annexations and increased population have resulted in an increase in sales tax revenue of 10.5 percent in 1966-67, while the statewide increase was 7.3 percent; in 1967-68, the statewide increase was 3.2 percent, while Oxnard's percentage increase was eleven percent.

Subventions

Subventions include those taxes levied by the State of California and distributed to cities and counties on a per capita apportionment. Included in the revenue source are the motor vehicle license fees, gas tax monies, traffic safety fund receipts, and a portion of the cigarette tax.

APPENDIX

APPENDIX TABLE

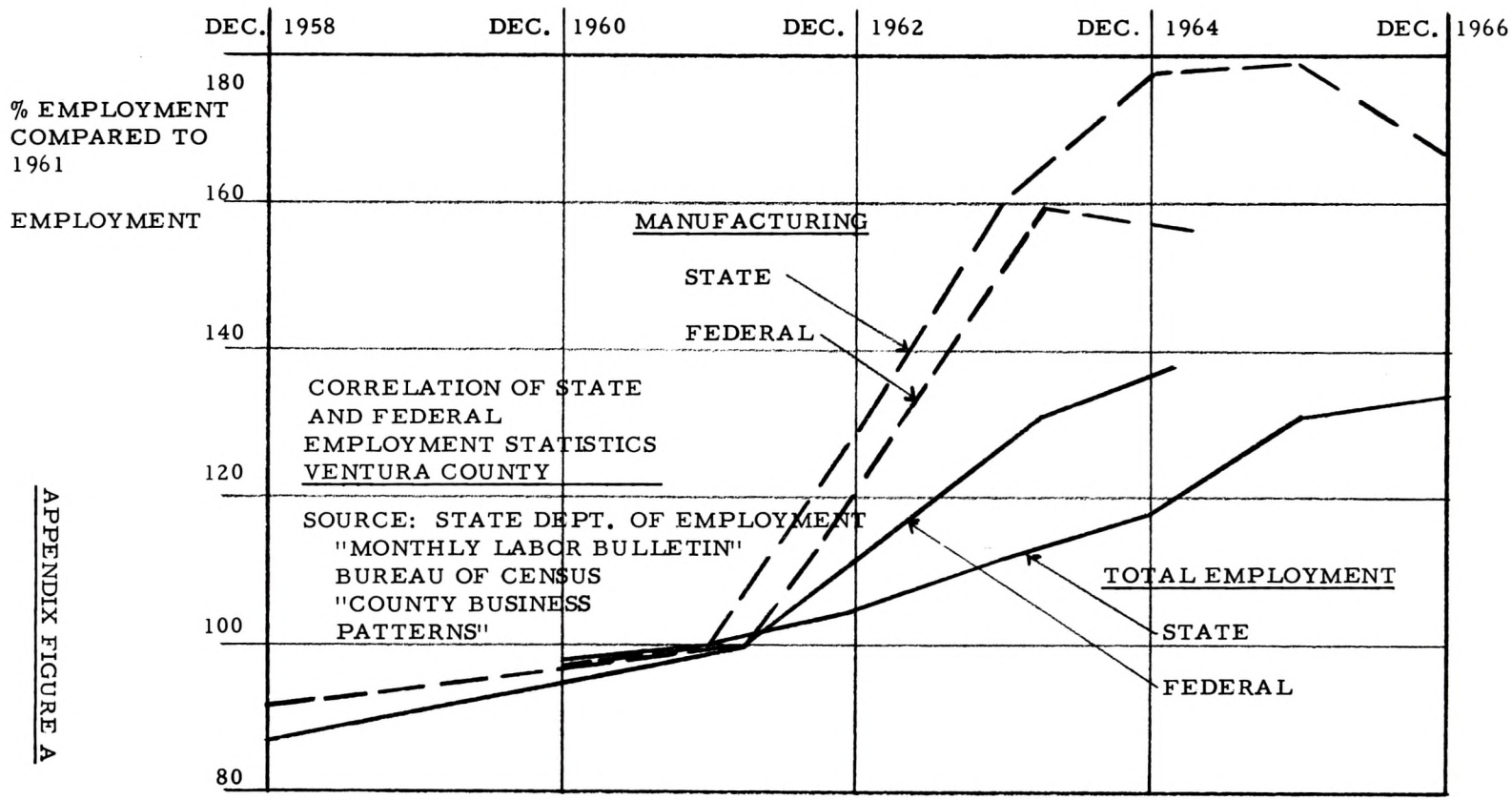
Estimate Basis For Assigning Population Projection to Study Areas.

1. 1960 Census figures for census tracts and VCPD assignment of census figures to Planning Areas correlated with study of population density map.

2. 1966 VCPD estimates assigned on basis of 1960 assignment and study of population density map.

3. 1980 VCPD projections assigned on basis of 1960 and 1966 estimates and study of population density map and urbanizable land map.

VCPD PLANNING AREA	VGA STUDY AREA	OCTOBER 1960 %	CENSUS NO.	OCTOBER 1966 %	ESTIMATE NO.	1980 %	PROJECTION NO.
Camarillo	Secondary	98.7	17,430	98.0	27,410	90	143,500
	Primary	3.5	600	2.9	800	5	8,250
Oxnard-Port Hueneme	Secondary	100.0	72,277	100.0	106,490	100	243,500
	Primary	100.0	72,777	100.0	106,490	100	243,500
Santa Paula	Secondary	88.7	16,004	94.5	22,500	70	49,700
	Primary	0.0	0	0.0	0	0	0
Ventura	Secondary	96.8	44,744	97.5	63,920	97	151,000
	Primary	0.0	0	0.0	0	0	0



APPENDIX FIGURE A

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU
IN COOPERATION WITH Oxnard Chamber of Commerce
CLIMATOGRAPHY OF THE UNITED STATES NO. 20 — 04

CLIMATOLOGICAL SUMMARY

LATITUDE 34° 12' N
LONGITUDE 119° 11' W
ELEV. (GROUND) 49 feet

STATION Oxnard, California

MEANS AND EXTREMES FOR PERIOD 1931 - 1960

Month	Temperature (°F) Means: Daily maximum	Daily minimum	Monthly	Extremes: Record highest	Year	Record lowest	Year	** Mean degree days	Precipitation Totals (Inches): Mean	Greatest daily	Year	Snow, Sleet: Mean	Maximum monthly	Year	Greatest daily	Year	Mean number of days: Precip. .10 inch or more	Temperatures Max. 90° and above	32° and below	Temperatures Min. 32° and below	0° and below	Month
(a)	30	30	30	30		30		30	30	30		30			30		30	30	30	30	30	
Jan.	64.5	42.1	53.3	86	1954	26	1937	363	3.33	5.96	1956	0.1	3.5	1949	2.5	1949	5	0	0	1	0	Jan.
Feb.	65.1	42.7	53.9	91	1954	30	1939+	311	2.99	3.79	1954	0					4	0	0	1	0	Feb.
Mar.	66.5	43.9	55.2	91	1931	32	1939	307	2.27	3.30	1938	0					3	*	0	*	0	Mar.
Apr.	67.7	46.7	57.2	94	1947	31	1933	237	1.13	1.80	1931	0					2	*	0	*	0	Apr.
May	69.2	49.6	59.4	96	1956	35	1933	183	.13	.62	1949	0					*	*	0	0	0	May
Jun.	71.0	51.9	61.5	102	1957	37	1933	114	.05	.56	1933	0					*	*	0	0	0	Jun.
Jul.	73.8	55.8	64.8	94	1960	43	1933	56	T	.05	1950	0					0	*	0	0	0	Jul.
Aug.	74.0	56.4	65.2	97	1955	45	1933+	47	.03	.43	1935	0					*	*	0	0	0	Aug.
Sep.	74.5	54.5	64.5	104	1939	40	1933	72	.08	1.67	1939	0					*	1	0	0	0	Sep.
Oct.	73.7	50.6	62.2	103	1958	37	1938	102	.40	1.46	1936	0					1	1	0	0	0	Oct.
Nov.	69.8	47.4	58.6	97	1956	28	1938	210	1.14	4.30	1946	0					2	1	0	*	0	Nov.
Dec.	66.8	43.7	55.2	96	1958	30	1932	304	3.20	3.59	1940	T	T	1952	T	1952	4	*	0	*	0	Dec.
Year	69.7	48.8	59.3	104	Sep. 1939	26	Jan. 1937	2306	14.75	5.96	Jan. 1956	0.1	3.5	Jan. 1949	2.5	Jan. 1949	21	3	0	2	0	Year

(a) Average length of record, years.

T Trace, an amount too small to measure.

** Base 65°F

+ Also on earlier dates, months, or years.

* Less than one half.

THE CLIMATE OF OXNARD

The city of Oxnard is located on the broad and flat coastal plain of the Santa Clara River some four miles from the Pacific Ocean, at an elevation of 40 to 50 feet. From Oxnard, the plain stretches northwestward to the foothills of the Santa Ynez Mountain chain, southeastward to the foothills of the Santa Monica Mountains, and inland about 20 miles with little variation in elevation.

Winters are mild but with some rain, and summers are cool and dry. The nearby Pacific Ocean exerts the main influence on the climate of Oxnard, and as a result, temperatures are moderate and rainfall is light. An even temperature regime is the outstanding characteristic of this climate. During all months of the year, for example, the average daily temperature range is only 20 degrees, and the difference between the mean temperatures of the warmest month and the coldest month is just over 10 degrees.

Minimum temperatures below freezing are a rarity, as the average for the 30 years of record is but two days a year. The all-time low temperature is 26 degrees. In any year the probability of minimum temperatures 32 degrees or lower occuring after a given date in the spring is 10% after March 2, 20% after February 14, 30% after February 2, and 40% after January 16. In the fall there is a 10% probability of freezing temperatures before December 10, and a 20% probability before December 26. Over one-half of the years are frost-free, so that the growing season may be considered to be all year round. Heating requirements are light, with only 2306 degrees days per year.

The warmest month is August, with a mean temperature of 65.2 degrees, but September and October also have warm daytime temperatures. The highest ever recorded, 104 degrees, occurred in September. There is an average of 3 days per year with maximums of 90 degrees or greater, and these usually occur in the autumn season. However, readings above 90 degrees have been recorded in all months of the year but January.

The mean temperature on most days departs from the normal value by just a few degrees. In addition, during the warmest months, the mean difference in the high temperature readings from one day to the next is only 2 or 3 degrees. This means that prolonged hot spells are very rare. The same day to day variation of 2 or 3 degrees holds true for the minimum temperatures during the winter months, so prolonged cold weather is equally rare.

Of the 14.75 inch normal annual precipitation total, 65% falls in the winter months of December, January, and February, while 95% is accounted for in the six months from November to April. The annual variation of precipitation is slight, with total amounts ranging between 9.40 inches and 17.80 inches about half of the time. One year in twenty can expect 5.40 inches or less, and amounts greater than 27 inches can occur with the same frequency. There are 21 days a year with .10 inch or more of rain, 10 days with .50 inch or more, and about 3 days per year when 1.00 inch or more falls. Snowfall is extremely rare, having been observed on only two occasions during the entire period of record to date.

In the years 1931-1960, the greatest total monthly rainfall was 10.69 inches, and amount this heavy can be expected about one year in fifteen on the average. In 50% of the years, a maximum monthly fall of 5.20 inches is probable. When shorter periods of time than a month are considered, the intensities show an increase, as suggested by the accompanying table in which the probable maximum precipitation amounts in inches and tenths are tabulated for several frequencies and intervals of time.

There is little annual variation in the daily relative humidity averages. The humidity is usually 70 to 80 percent in the early morning hours, dropping to near 50% in the afternoons. The moderate humidity and temperature experienced at Oxnard through the year also yields moderate evaporation. About three inches of evaporation occurs in each of the winter months, increasing to just over 7 inches in June, July, and August. The annual total is 60 to 65 inches. There is enough heat energy available that a growing crop might make use of 29 inches of moisture. In the absence of irrigation, however, the precipitation distribution through the year limits the crop to the use of 13 inches of moisture.

In an average year, 250 days are clear, 60 days are partly cloudy, and 55 days are cloudy. Many of the partly cloudy days occur in the summer when the coastal low cloudiness is present in the morning hours. The wind is from the southwest or west one-third of the time, and the mean wind speed is 7 mph. Northeast winds occur about 10% of the time. Wind velocities above 18 mph have been observed 5% of the time, some in connection with the dry northeasterly winds of Autumn, Winter, and Spring. Once in two years a wind speed near 30 mph is probable, while once in fifty years the speed may reach 60 mph, and once in one hundred years speeds near 80 mph are possible.

Table of precipitation intensities:

Frequency of Occurrence

Time Interval	Once in Two Years	Once in Five Yrs.	Once in 10 Yrs.	Once in 25 Yrs.	Once in 50 Yrs.	Once in 100 Yrs.
1 hr.	.5	.7	.8	1.0	1.1	1.3
3 hrs.	.8	1.2	1.5	1.9	2.2	2.5
6 hrs.	1.3	1.9	2.3	2.8	3.3	3.8
12 hrs.	1.8	2.5	3.1	3.8	4.4	5.1
24 hrs.	2.2	3.2	3.8	4.6	5.2	5.9
1 mo.	5.2	7.9	9.6	11.8	13.5	15.1

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APPENDIX 2

Oxnard, California

Average Temperature (°F)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1931	55.2	55.6	59.0	58.5	62.8	62.5	67.6	69.5	64.0	62.8	56.0	51.8	60.4
1932	49.0	53.8	56.5	56.5	58.6	60.0	62.5	63.4	63.3	61.4	61.6	49.2	58.0
1933	50.7	49.6	52.4	54.5	53.2	58.2	61.8	62.2	59.2	61.2	61.2	53.0	56.4
1934	57.2	56.7	59.0	60.5	61.6	60.6	65.8	65.3	64.6	62.1	56.9	57.4	60.6
1935	54.4	55.4	52.0	57.4	59.0	61.6	63.1	65.8	63.4	63.0	56.7	55.2	58.9
1936	56.6	54.2	55.9	57.3	61.2	62.0	67.0	66.0	64.4	62.8	63.2	54.7	60.4
1937	45.1	50.4	53.4	56.6	59.5	63.8	65.5	64.9	64.2	61.3	55.7	57.8	58.2
1938	57.0	53.6	53.2	57.9	58.6	63.9	66.3	--	69.0	60.9	57.0	57.8	--
1939	54.4	49.9	52.6	57.5	57.4	60.0	63.4	65.9	69.5	64.5	60.3	56.6	59.3
1940	55.2	55.2	57.4	58.2	60.2	61.8	62.2	63.4	63.8	63.1	59.4	56.4	59.7
1941	55.0	56.5	58.1	56.6	62.6	60.6	64.2	64.6	63.0	61.6	59.4	54.8	59.8
1942	54.0	52.2	55.2	56.9	58.0	62.0	65.8	65.2	62.0	63.8	58.4	53.7	58.9
1943	53.1	56.1	55.4	57.8	59.5	60.0	63.2	63.0	63.4	60.4	59.0	55.0	58.8
1944	55.0	51.5	56.6	53.2	--	59.2	--	--	--	--	--	--	--
1945	--	--	--	--	--	--	--	--	66.3	62.2	56.4	53.2	--
1946	52.4	51.1	53.4	57.1	58.2	60.4	64.6	64.2	64.4	59.8	56.2	53.6	58.0
1947	51.4	55.2	56.7	57.8	59.6	62.2	61.4	62.8	63.2	61.0	54.2	58.3	58.3
1948	56.0	50.9	52.1	57.0	58.5	62.2	63.0	63.8	64.3	60.6	58.8	51.9	58.3
1949	47.9	50.3	53.2	58.0	60.0	62.4	62.5	64.2	64.7	60.4	62.4	53.2	58.3
1950	49.7	53.3	54.9	57.8	58.2	60.1	66.4	62.5	64.1	63.2	61.8	58.5	59.2
1951	53.2	53.2	56.4	57.1	57.9	61.5	64.7	64.5	64.8	63.9	58.5	53.5	59.1
1952	52.0	56.5	52.5	57.1	59.1	60.9	63.3	63.9	63.8	60.2	55.7	54.0	58.3
1953	58.6	56.0	54.2	54.0	59.3	60.0	66.4	63.2	62.7	62.6	60.6	57.0	59.6
1954	52.4	60.9	54.3	57.1	59.3	61.8	67.8	66.6	63.0	59.4	60.5	56.2	59.9
1955	50.8	53.6	56.4	54.7	58.0	60.9	65.2	65.7	64.8	64.8	57.3	53.4	58.8
1956	52.3	50.5	55.0	55.5	60.9	60.7	64.3	65.1	--	61.1	--	--	--
1957	52.2	--	--	56.6	60.1	--	67.6	--	64.3	63.6	57.9	60.6	--
1958	58.9	58.4	55.1	61.3	62.1	63.4	65.1	68.4	69.0	67.6	60.0	59.3	62.4
1959	56.6	54.3	59.9	60.4	59.6	64.6	68.9	68.6	66.9	65.4	61.8	57.7	62.1
1960	51.9	54.6	57.9	59.5	61.5	64.8	67.2	65.3	66.0	61.2	57.1	55.5	60.2
*1961	59.1	57.3	55.7	58.6	58.2	61.6	67.9	68.3	65.2	63.7	56.0	53.7	60.4
*1962	54.1	49.9	51.5	58.3	57.7	61.0	62.7	64.7	64.3	61.6	56.7	55.4	58.2
*1963	53.4	59.4	54.4	55.5	59.8	62.5	64.5	67.0	69.3	64.8	59.5	58.0	60.7
*1964	54.2	56.5	54.2	56.5	56.3	59.8	63.3	65.9	64.3	64.4	57.1	54.0	58.9
*1965	55.1	53.5	54.9	57.0	57.7	60.3	62.3	66.9	64.3	65.9	58.1	54.5	59.2

*Not used in computing means and extremes

Oxnard, California

Total Precipitation (Inches)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1931	3.79	3.42	.07	2.11	.79	0	0	.03	0	0	1.90	7.81	19.92
1932	2.52	3.86	0	.29	0	0	0	0	.08	.05	0	.80	7.60
1933	8.82	0	.37	.27	.15	.56	0	.23	0	.34	.03	6.29	17.06
1934	.04	2.80	0	0	0	.48	0	T	.06	1.10	4.30	2.95	11.73
1935	3.36	1.22	3.10	2.66	0	0	0	.43	.02	.22	.78	1.60	13.39
1936	.98	5.53	1.20	.06	0	T	.02	T	0	3.03	0	4.19	15.01
1937	2.38	8.11	4.58	.07	.18	0	0	0	T	.04	.03	3.12	18.51
1938	2.74	5.65	7.50	.41	.10	0	0	0	.30	.15	.05	6.45	23.35
1939	3.09	1.68	1.23	.33	.01	0	T	T	1.69	.05	.28	.85	9.21
1940	4.70	5.43	1.51	.87	.04	0	0	0	0	1.14	.13	10.69	24.51
1941	6.76	9.17	6.42	3.86	0	0	T	T	0	1.00	.13	5.07	32.41
1942	.47	.80	2.31	2.60	.05	0	0	.05	0	.94	.10	2.16	9.48
1943	9.25	2.29	4.56	.86	.07	0	0	0	0	.53	.03	9.20	26.79
1944	1.81	7.96	2.25	.78	0	0	0	0	0	.04	2.72	.35	15.91
1945	.73	2.33	4.36	0	.04	.09	0	0	0	.55	.35	4.39	12.84
1946	.26	1.00	3.16	.16	0	0	0	0	0	.35	7.98	2.33	15.24
1947	.04	.46	.76	0	.16	0	0	.03	.01	.23	T	1.19	2.88
1948	.04	.80	2.69	1.10	.02	.02	0	0	0	.10	0	2.19	6.96
1949	1.71	1.32	1.18	.03	.84	.11	T	0	0	0	.68	4.46	10.33
1950	3.41	1.64	.55	.60	.02	.05	.07	0	.25	.29	.97	.49	8.34
1951	2.18	1.59	.30	1.98	0	0	0	.08	0	.37	1.10	5.60	13.20
1952	10.27	.61	5.27	1.77	0	0	0	0	0	0	2.77	3.67	24.36
1953	1.37	0	.36	1.10	0	0	0	0	0	0	2.15	.21	5.19
1954	3.81	4.65	4.79	.27	.07	0	0	0	0	0	1.10	1.19	15.88
1955	4.64	1.55	.45	3.11	.66	0	0	.10	0	.01	2.04	3.19	15.75
1956	8.86	1.08	T	1.57	.42	0	0	0	0	T	0	.10	12.03
1957	4.64	1.35	2.31	.74	.35	.12	0	0	0	1.13	.08	3.47	14.19
1958	2.09	6.29	6.49	4.04	.01	0	0	0	.01	0	.08	.12	19.13
1959	1.48	3.82	0	.57	T	0	0	0	.01	.01	0	1.31	7.20
1960	3.53	3.37	.21	1.68	0	0	0	0	0	.30	4.43	.45	13.97
*1961	1.21	.01	.86	.01	.03	0	0	T	T	0	2.43	.73	5.28
*1962	2.52	15.58	1.03	0	0	T	0	0	0	.37	0	.07	19.57
*1963	.41	4.10	2.34	1.44	.16	.80	0	.02	.75	.50	2.22	.03	12.77
*1964	2.33	0	1.55	1.48	0	.13	0	0	0	.74	1.54	7.22	14.99
*1965	.75	.18	1.10	5.51	0	T	.01	0	.05	0	7.88	2.70	18.18

*Not used in computing means and extremes

STATION HISTORY

Oxnard temperature and rainfall records were begun in June 1923 by the American Beet Sugar Company at their plant located about one-half mile southeast of the Post Office. The company became the American Crystal Sugar Co. in August, 1934. The cooperating observors were employees of the company, and records were continued at this location with little change until November 1958, when the company ceased operations. The equipment was then moved to its present site in the Oxnard Municipal Water Department yards on East Third Street, a few blocks east of the Post Office. Water Department employees now take the observations.

Monthly precipitation amounts have been published in the California Climatological Data series since the start of the station, and daily precipitation values were added in 1929. The mean monthly temperature has also been published since 1929, with the exception of parts of 1944 and 1945 when faulty thermometers made the readings open to question. The daily maximum and minimum records have been published since July 1948; and since December 1957 the station has been part of the weekly Crop Reporting network.

This long and consistent record has allowed precipitation and temperature normals to be established for the city, which increases the value of the record to the residents of Oxnard, as well as the nation. The outstanding cooperation of the employees of the American Crystal Sugar Company and the Oxnard Municipal Water Department is greatly appreciated, as their conscientious efforts have made this Climatological Summary possible.

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APPENDIX

WATER SOURCE AND ANALYSIS SHEET

(All figures are p. p. m.)

RADICALS	Main Pumping Plant	U. W. C. D. "El Rio"	Wells #13 & #14 "Fox Canyon"
Calcium	85	136	115
Magnesium	38	51	36
Sodium	167	108	90
Potassium	5	-	-
Bicarbonate	207	260	245
Sulphate	418	480	377
Chloride	88	53	43
Nitrate	7	5	0
Boron	0.6	.0.80	0.63
Fluoride	0.6	0.55	0.65
Iron	0	0.11	0.59
Manganese	0	0	0.08
pH	8.1	7.51	7.7
T. D. Solids	980	1093	909
Total Hardness	342	551	448

The water from the Metropolitan Water District, furnished through the Calleguas Water District, has a similar analysis according to the City of Oxnard Water Department.