

**CITY OF SAN DIEGO
M E M O R A N D U M**

DATE: May 29, 2003

TO: Affordable Housing Task Force

FROM: Horace Hogan II, Chairperson
Identification of Issues Subcommittee

SUBJECT: Identification of Issues Subcommittee report to the Affordable Housing
Task Force

On behalf of the Identification of Issues Subcommittee, the final report of the subcommittee to the Affordable Housing Task Force is attached.

Estimates of the Housing Shortfall in San Diego
Abbreviated Report Prepared for the Housing Taskforce

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Introduction

This research presents estimates of the housing shortfall in San Diego. The estimates are both backward and forward-looking. We estimate the housing shortfall for the decade of the 1990s and the expected demand for housing for the first decade of the new century. Together these estimates may be used to determine the amount of housing production needed to bring back balance to the San Diego housing market.

This research presents estimates of the housing shortfall both at the county and city level. First, we review estimates of the housing shortfall for the county during the 1990s. Because these estimates vary widely, we discuss and review the different methodologies used. We find the primary factor explaining the difference in the estimates is how the demand for housing units is calculated. The demand for housing is estimated in one of two ways: (1) based on population growth or (2) based on employment growth. These two factors do not necessarily grow at the same rate. When local employment grows faster than population, one may conclude that the region is not providing enough housing to support its growing workforce. For this reason employment growth should be used to calculate housing demand. The Association of Bay Area Governments (ABAG) takes the average of the population and the employment based housing estimates when constructing its housing element plans. We also take this approach to estimating housing demand.

The demand for housing is compared to the production of housing. A shortage of housing occurs when demand exceeds supply and a surplus occurs when supply exceeds demand. At the county level, we estimate the housing shortfall during the 1990s. Then we estimate the demand for housing up to the year 2010. Together these estimates tell how much housing production is needed countywide.

These same calculations are performed at the city level. In addition, the housing need of some specific groups is examined. We examine the housing needs of renters and homeowners. Housing needs are presented for the traditional income brackets: very low income (less than 50% of median income), low income (50%-80% of median income), moderate income (80%-120% of median income) and above moderate income (greater than 120% of income). For the most part we focus only on the total number of units needed, and do not examine (except briefly) those that are cost burdened (greater than 30% of income spent on housing) nor those that are living in substandard housing (inadequate plumbing etc.). Later this year the Census Bureau, at the request of HUD, will produce these detailed figures derived from the 2000 Census. We briefly examine the housing needs of disabled persons. This examination is brief because of the dearth of information on the housing needs of the disabled.

I. San Diego County

A. Methodology

This section describes the various approaches used to estimate the housing shortfall during the 1990s for San Diego County. Housing shortfalls are measured in one of two ways. The first method measures the *existing* housing shortfall using vacancy rates. Historically low vacancy rates mean a shortfall of housing, historically high vacancy rates mean a surplus of housing. The Association of Bay Area Governments (ABAG) includes this measure when computing *future* housing needs in housing element plans.

The second method measures *past* housing shortfalls by estimating unmet housing needs. The focus is on how many housing units should have been constructed but were not. Housing shortfalls measured in this way have been calculated by: (1) the California Department of Housing and Community Development (HCD) as described in their “Raising the Roof” publication, (2) the San Diego Chamber of Commerce (3) Myers and Park at the University of Southern California and (4) Alan Gin at the University of San Diego. Table 1 summarizes the findings from each study. The top portion of the table presents estimates for San Diego County while the bottom portion presents estimates for the State of California.

Table 1
Housing Shortfall Estimates

Author	Region	Period(s)	Housing Unit Shortfall*
Housing and Community Development	San Diego County	1980-89	79,715
		1990-94	-48,265
		1995-97	-23,709
Chamber of Commerce	San Diego County	1990-00	27,220
Gin	San Diego County	1991-00	82,591
Housing and Community Development	State of California	1980-89	662,373
		1990-94	-321,688
		1995-97	146,903
Myers and Park	State of California	1990-00	548,137

* minus sign (-) means a housing surplus

For San Diego County, the housing shortfall ranges from 27,220 housing units (Chamber of Commerce) to 82,591 housing units (Gin). In contrast the HCD study, which only covers 1990-97, finds a surplus of 71,974 housing units. The HCD data show that during the recessionary period, the county had a housing surplus (48,265 housing units). Then as the economy recovered the surplus fell (23,709).

At the state level, Myers and Park estimate a 548,137 housing unit shortfall, while HCD finds a 174,785 surplus (but again just for the 1990-97 period). The HCD data show that during the recessionary period, the state had a housing surplus (321,688 housing units). Then as the economy recovered, a deficit (146,903 housing units) occurred.

It appears there is a wide range of estimates of the housing shortfall in the 1990s. Some of the variation may be due to differences in data while some of the difference is due to a difference in methodologies used. In order to discover the source(s) of variation in these estimates we estimate the housing shortfall for San Diego County for the decade of the nineties using these methodologies with the same set of data.

The demand for housing is measured using either employment growth or population growth or some combination of the two. Some care must be taken with employment estimates. The Census measures employment by residence while the State of California Department of Employment Development Division (EDD) measures employment by place of work. Table 2 shows that there is a remarkable difference between the employment estimates produced by the Census and by the State of California. The figures suggest that there is a substantial inflow of traffic into the region as people come here to work (but do not live here). Notice also that EDD shows employment growth of nearly 20% during the decade. This fact translates into a large demand for housing as will be seen below.

Table 2
Civilian Employment San Diego County

	1990	2000	change
Census	1,145,266	1,241,258	95,992 (8.38%)
EDD	1,084,800	1,294,580	209,780 (19.34%)
difference	-60,466	53,322	113,788

Table 3 describes a general procedure for calculating the housing shortfall. All of the estimates shown in Table 1 are special cases of this general procedure. Table 3 shows that housing need based on employment growth during the 1990s was 162,620 units (Table 3, line 3). This is much greater than the housing needs based on population growth of 121,624 units (Table 3, line 6). We will see that this large difference is responsible for the wide-ranging estimates of the housing shortfall given in Table 1.

The sole use of civilian employment data suffers in that it may ignore changes in the housing needs of those that are either not civilian or not in the labor force. The civilian employment data do not include the military, an important factor in San Diego. The military compose 3% of population and changes in the military population have strong effects on the local economy. In addition, if someone is not in the labor force, because they are retired, disabled or raising a family, they still need a place to live. In the last census there were 1.2 million employed in a county with 2.8 million people.

But we do need to account for the fact some people work here but can't live here because of a shortage of housing in the region. As a compromise, we take the average of population and employment housing demands (Table 3, line 7). Including replacements of housing demolitions gives the new demand for housing to be 144,702 units (Table 3, line 9).

Additions to the housing stock come from new residential permits (95,789 units) and additions to mobile homes (1,038 units). The new supply of housing was 96,827 units (Table 3, line 12). Subtracting out an allowance for vacancies, 93,230 housing units were produced during the 1990s.

Subtracting the new supply of housing from the new demand gives a housing shortfall of 51,472 units for San Diego County during the 1990's. This estimate is in the middle of those shown in Table 1.

Table 3
Calculation of Housing Shortfall/Surplus for San Diego County
1990-2000

	1990	2000	Calculations	Remark
1 Employment	1,084,800	1,294,580	209,780	a
2 Divided by jobs/household	1.29	1.25	1.29	b
3 Equals needed household growth or			162,620	
4 Household population	2,389,651	2,716,820	327,169	c
5 Divided by persons/household	2.69	2.73	2.69	d
6 Equals needed household growth			121,624	
7 Average of (3) and (6)			142,122	e
8 Plus replacement of losses of stock (demolitions)			2,580	f
9 Equals demand growth			144,702	
10 Housing units authorized			95,789	g
11 Plus new mobile homes	45,992	47,030	1,038	h
12 Equals new supply			96,827	i
13 Less vacancy allowances			3,597	j
14 Equals occupied units produced			93,230	k
15 Subtract (14) from (9) gives shortage (+) or surplus (-)			51,472	

- a Civilian employment; number of jobs within area; SANDAG;
209,780 is 19.34% growth
- b Census DP-3 tables; jobs/(occupied housing units); here jobs are by residence
for 1990: $1.29 = (1,145,266 / 887,403)$ for 2000: $1.25 = (1,241,258 / 994,677)$
- c Census DP-3 tables; 327,169 is 13.69% growth
- d Census DP-3 tables; persons/(occupied housing units)
for 1990: $2.69 = (2,389,651 / 887,403)$ for 2000: $2.73 = (2,716,820 / 994,677)$
- e 50/50 split recommended by ABAG.
- f Demolitions average 129 per year with 200% allowance, per HCD recommendation
- g Construction Industry Research Board, 1990-1999
- h Census DP-3 tables; includes boats, RV's etc.
- i Actual change in total units 93,909
- j From owner and renter tables respectively
- k Actual change in occupied units 107,274 (vacancies fell by 13,365)

Table 4 compares the housing shortfall procedures used by the various authors referred to in Table 1 (now organized alphabetically). The table is broken into demand and supply elements. The San Diego Regional Chamber of Commerce bases demand solely on population growth while Gin uses employment growth. The HCD uses the larger of employment and population growth. All four studies use residential permits but only Myers and Park include changes in the stock of mobile homes. HCD as well as Myers and Park include demolition and vacancy adjustments while the Chamber and Gin do not.

Table 4
Calculation Element Comparison

Author	Demand			Supply		
	population	employment	demolition	permits	vacancy	mobile homes
Chamber	✓			✓		
Gin		✓		✓		
HCD	✓	✓	✓	✓	✓	
Myers & Park	✓		✓	✓	✓	✓

Table 5 gives the housing shortfall estimates for San Diego County using the calculations found in each of the authors' studies assuming we all agree to use the data shown in Table 3. Estimates of the housing shortfall for the nineties using the common data set range from 25,835 units (Chamber method) to 81,192 units (HCD method). Both Gin and HCD use demand based on employment and produces the highest demand for housing units. The HCD method picks the higher of the employment and population based demand. Myers and Park demand for housing is higher than that from the Chamber because they include demolition replacement demand. HCD includes vacancies and so gives a lower supply of housing than the Chamber and Gin. While the supply estimates are all very close, the variation in demand ranges from the low 120,000 units to the low 170,000 units or a 50,000 unit difference in demand. The variation in demand estimates is responsible for the wide variation in the estimates of the shortfall in housing.

Table 5
Revised Calculations for San Diego County

Method	Demand	Supply	Shortfall (+) or Surplus (-)
Chamber	121,624	95,789	25,835
Gin	170,915	95,789	75,126
HCD	173,495	92,303	81,192
Myers & Park	124,204	93,341	30,863

B. Demand through 2010

The difference in employment and population based estimates may be important when calculating future housing need. SANDAG forecasts nearly identical population and employment growth rates into the foreseeable future. This is in stark contrast to the behavior of these two variables over the past ten years. In the 1990s, employment growth was 19.3% while household population growth was 13.7%. In the forecast period both employment (15.9%) and household population (15.4%) grow at similar rates. As a result, population based estimates of future housing needs (159,328 units) are very similar to those based on employment (155,715 units). A future version of this paper will use past employment and population growth rates, instead of the SANDAG forecasts, to estimate housing demand through 2010.

Table 6
Calculation of Housing Need for San Diego County
2000-2010

	2000	2010	Calculations	Remark
1 Employment	1,294,580	1,500,113	205,533	a
2 Divided by jobs/household			1.29	b
3 Equals needed household growth or			159,328	
4 Household population	2,716,820	3,135,695	418,875	c
5 Divided by persons/household			2.69	d
6 Equals needed household growth			155,715	
7 Average of (3) and (6)			157,521	
8 Plus replacement of losses of stock (demolitions)			2,580	e
9 Plus new mobile homes			0	f
10 Plus vacancy allowances			6,557	g
11 Equals housing need			166,658	

a SANDAG 2030 Forecast; 205,533 is 15.9% growth

b 1990 Census values

c SANDAG 2030 Forecast; 418,875 is 15.4% growth

d 1990 Census values

e HCD recommendation

f SANDAG 2030 Forecast

g From owner and renter tables

Table 6 shows that the housing need for 2000-2010 is 166,658 units or 16,665 units per year. This much higher than the HCD need calculations sent to SANDAG by HCD in a letter dated Sept. 30, 2002. HCD calculations for the seven-and-a-half years from 2002 to mid 1009 estimate the housing need for San Diego County to be either 88, 298 units (“B” scenario) or 95,331 units (“A” scenario). The “B” scenario means 11,773 per year and the “A” scenario means 12,710 units per year. HCD calculations are based on occupied housing units. Table 7 shows SANDAG’s forecast of housing units in the year 2010 and are similar to the figures used by HCD.

Table 7
SANDAG Forecast

Year	2000	2010	Change
Household population	2,716,820	3,135,695	418,875
Occupied units	994,677	1,103,584	108,907
Persons per Household	2.73	2.84	3.85

Table 7 reports that SANDAG forecasts a rise in the number of people per household from 2.73 to 2.84. The last column shows that household population is expected to grow by 418,875 people with the addition of 108,907 units. If the households existing in 2000 keep 2.73 persons per household, then 3.85 persons per household must live in the new 108,907 units. The analysis presented in Table 6 assumes that all households have 2.69 persons per household and as a result more housing units are needed than HCD forecasts.

Combining the 51,472 unit shortfall from the 1990s with the 166,658 units needed from 2000 to 2010 gives a total demand of 218,130 units. Spread over a ten year period this means we need to produce 21,813 units per year to restore balance in the San Diego County housing market.

II. San Diego City Tables

Table 8
Distribution of Renter and Homeowner Households

Year	Renter	Owner	Total
1990	209,358	196,458	405,816
2000	227,407	223,275	450,682

Table 9
Housing Shortfall for Renters and Owners
1990-2010

Period	Renter	Owner	Total
1990-2000 Shortfall	19,264	13,010	32,275
2000-2010 Demand	43,127	38,293	81,421
Total need	62,391	51,303	113,696

A. Income

Definitions:

Very Low income household-earning 50% of the median income

Low income household-earning 50-80% of the median income

Extremely low income household-earning 80-120% of the median income

Extremely low income household-earning more than 120% of the median income

Median household income 1989 \$33,686

Very Low (50%) \$16,843

Low (80%) \$26,949

Moderate (120%) \$40,423

Median household income 1999 \$45,609

Very Low (50%) \$22,805

Low (80%) \$36,478

Moderate (120%) \$54,731

Table 10
Household Distribution 1990

Income	Renter	Owner	Total
Very Low (50%)	70,617	21,222	91,839
Low (80%)	46,252	21,999	68,251
Moderate (120%)	44,011	34,955	78,966
Above Moderate	48,478	118,282	166,760
Total	209,358	196,458	405,816

Table 11
Household Distribution 2000

Income	renter	owner	total
Very Low (50%)	82,283	27,883	110,166
Low (80%)	48,141	27,640	75,781
Moderate (120%)	42,117	40,413	82,530
Above Moderate	54,865	127,340	182,205
Total	227,407	223,275	450,682

Table 12
Gross Rent as a Percent of Household Income 1989

Income	<20%	20-24	25-29	30-34	35>	Nc	Total
Less than \$10,000	297	642	1622	1192	29063	4176	36992
\$10,000-\$19,999	1166	1813	3943	5316	34474	1362	48074
\$20,000-\$34,999	8523	13156	14044	9530	14040	1709	61002
\$35,000-\$49,999	14457	9084	5150	2440	2030	858	34019
\$50,000 or more	20672	5409	1685	1015	51	439	29271
Total	45115	30104	26444	19493	79658	8544	209358

Nc not calculated

Table 13
Homeowner Costs as a Percent of Household Income 1989

Income	<20%	20-24	25-29	30-34	35>	Nc	Total
Less than \$10,000	1215	545	552	541	4646	1018	8517
\$10,000-\$19,999	5945	1287	874	721	4741	6	13574
\$20,000-\$34,999	13182	1867	1784	2061	10303	6	29203
\$35,000-\$49,999	12788	3321	4214	4606	8383	14	33326
\$50,000 or more	41886	13290	10850	6796	7560	12	80394
Total	75016	20310	18274	14725	35633	1056	165014

1990 Census

Table 14
Gross Rent as a Percent of Household Income 1999

Income	<20%	20-24	25-29	30-34	35>	Nc	Total
Less than \$10,000	390	373	1,347	791	20,791	5,763	29,455
\$10,000-\$19,999	1,411	1,032	2,013	2,719	30,500	1,463	39,138
\$20,000-\$34,999	4,306	7,580	9,915	9,432	20,528	2,794	54,555
\$35,000-\$49,999	10,260	9,940	7,400	4,339	4,749	1,863	38,551
\$50,000-\$74,999	19,402	8,544	4,548	1,685	1,442	1,408	37,029
\$75,000-\$99,999	11,542	2,231	739	243	170	359	15,284
\$100,000 or more	11,698	705	203	88	72	425	13,191
Total	59,009	30,045	26,165	19,297	78,252	14,075	227,203

2000 Census

Table 15
Homeowner Costs as a Percent of Household Income 1999

Income	<20%	20-24	25-29	30-34	35>	Nc	Total
Less than \$10,000	140	149	176	281	4,254	1,368	6,368
\$10,000-\$19,999	2,374	946	685	459	5,635	0	10,099
\$20,000-\$34,999	7,520	1,099	998	1,228	10,145	0	20,990
\$35,000-\$49,999	8,207	1,833	2,566	3,102	9,819	0	25,527
\$50,000-\$74,999	13,945	6,456	6,835	5,800	8,715	0	41,751
\$75,000-\$99,999	12,978	7,703	5,262	2,678	2,541	13	31,175
\$100,000-\$149,999	18,861	6,435	2,868	1,591	1,283	0	31,038
\$150,000 or more	16,954	2,219	956	432	398	43	21,022
Total	80,979	26,840	20,346	15,571	42,790	1,424	187,950

Table 16
Household Needs 2000-2010 San Diego City

Income	Renter	Owner	Total
Very Low (50%)	15,624	4,724	20,348
Low (80%)	9,144	4,762	13,906
Moderate (120%)	7,973	6,940	14,913
Above Moderate	10,385	21,867	32,253
Total	43,127	38,293	81,420

Table 17
Housing Needs by Income 1990-2010

Period	Income	Renter	Owner	Total
1990-2000 Shortfall	Very Low	10,822	2,369	13,191
	Low	5,917	2,535	8,452
	Moderate	1,795	2,880	4,675
	Above Moderate	730	5,226	5,956
		19,264	13,010	32,274
2000-2010 Demand	Very Low	15,624	4,724	20,348
	Low	9,144	4,762	13,906
	Moderate	7,973	6,940	14,913
	Above Moderate	10,385	21,867	32,252
		43,126	38,293	81,419
Total Need	Very Low	26,446	7,093	33,539
	Low	15,061	7,297	22,358
	Moderate	9,768	9,820	19,588
	Above Moderate	11,115	27,093	38,208
		62,390	51,303	113,693

Table 18
 Characteristics of People with Disabilities

Subject	Number
Population 2000	1,223,400
Persons 5-20 years	266,120
Persons 5-20 years with a disability	18,785
Persons 21-64 years	708,132
Persons 21-64 years with a disability	123,891
Persons 65 years and older	124,298
Persons 65 years and older with a disability	51,310
Total Persons with disabilities	193,986

Table 19
 Characteristics of People with Disabilities

Subject	Number
Total disabilities tallied	346,719
Total disabilities tallied for people 5 to 15 years	10,702
Sensory	1,457
Physical	1,662
Mental	6,187
Self-care	1,396
Total disabilities tallied for people 16 to 64 years	232,574
Sensory	14,222
Physical	38,122
Mental	28,887
Self-care	11,622
Go-outside-home	52,045
Employment	87,676
Total disabilities tallied for people 65 years and older	103,443
Sensory	17,225
Physical	34,336
Mental	14,725
Self-care	11,618
Go-outside-home	25,539

Table 20
Housing Costs for Elderly Households (65+)
Monthly Housing Costs as a Percent of Current Income 1989

Percent	Number
Less than 5	6,500
5-9	29,300
10-14	27,300
15-19	22,000
20-24	14,400
25-29	7,600
30-34	8,100
35-39	4,700
40-49	9,400
50-59	3,400
60-69	1,500
70-79	3,300
70-99	2,100
100 or more	300

*32,800 (23%) spend over 30%

Table 21
Navy Housing Deficit*

1998	2003
3,795	4,600

*After military housing filled

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