

Eliminating the 2010 Census Long Form? - Current Status of the American Community Survey

Remarks of Linda Gage, State of California at the Population Association of America, May 9, 2002

I plan to briefly discuss three broad aspects of the American Community Survey (ACS): the federal infrastructure, evaluation, and implementation.

INFRASTRUCTURE FOR THE AMERICAN COMMUNITY SURVEY

Funding and Sample Size

If the ACS sample is cut due to funding shortfalls or remains static as housing growth occurs, the data produced by the ACS may not be adequate to substitute for the traditional long-form in 2010. Between the 1990 and 2000 censuses, the nation's housing stock increased by 13.6 million units, a 13 percent growth. If we had started with a long-form sample of 17 million housing units in the 1990 census, a 1 in 6 sample, but did not increase the number of housing units sampled in the 2000 census to account for the growth in housing units, the long form questionnaire would have gone to only 14.7% of the housing units in census 2000 rather than 16.7% as in 1990, a sample of closer to 1 in 7 units than 1 in 6. The ACS sample needs to keep pace with the nation's housing growth.

Census Bureau's Intercensal Estimates:

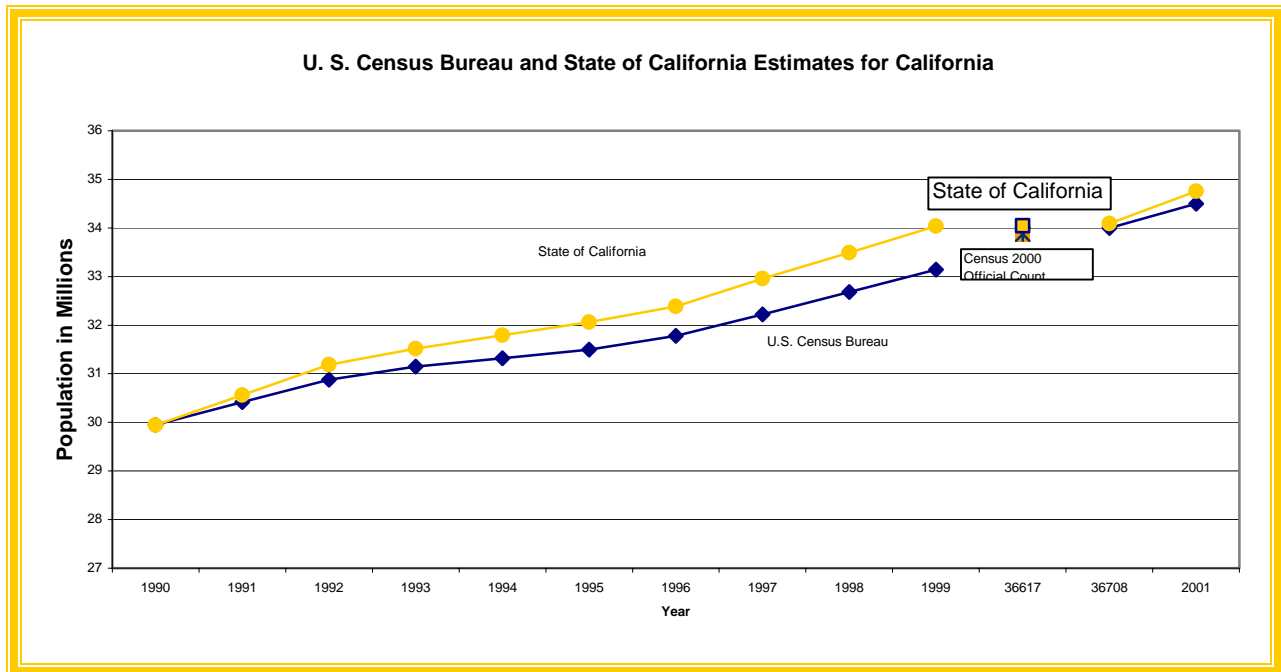
The Census Bureau's **estimates** of the nation's population for Census Day, April 1, 2000, was 6.9 million persons lower than the number counted in the census, an underestimate of 2.5 percent. The Census Bureau's intercensal estimates provide the population control totals for the American Community Survey (ACS or C2SS). Two data sources account for most of the shortfall in the national estimates: the 1990 census and data from the Immigration and Naturalization Service (INS).

In each census a portion of the population does not participate. This results in an understatement or undercount of immigrant, minority, mobile, youth and renter populations. The four million people the Bureau believes were missed in the 1990 census were never included in the intercensal estimates.

The immigration data from INS have a substantial time lag from a petition for legal resident status to acceptance and from acceptance to data availability. The INS data do not include unauthorized immigration or adequately account for temporary non-immigrant foreign residents, many of whom do participate in the census. Demographers were caught unawares by the increase in the foreign-born resident population since 1990. The estimates program of this decade faces the challenges of incorporating the number, as yet undetermined, of persons who did not participate in the 2000 census and conceptualizing better methods for estimating migration factors, foreign and domestic.

For the last three decades the State's estimates for California have been more accurate than Bureau's. The State's official estimates in 1999 differed from the Bureau's by nearly 900,000 (890,879) people, 2.6 percent. The State's estimate of the Census day population was within 176,000 of the actual census count. Now both agencies have begun another decade of estimates, both using the Census 2000 data as the foundation. In July 2001, just 15 months past census day 2000 the two sets of estimates differ by over 250,000 people (3/4 of one percent). The comparable discrepancy in July 1991 was 150,000 people (1/2 of one percent).

The Census Bureau's intercensal estimates are the population controls for the American Community Survey. These estimates have not performed as well as the State's own. This motivates concerns about the accuracy of the American Community Survey results. Even if the population characteristics are portrayed perfectly, the numbers will not accurately reflect the State's population and the long-form data could be seriously flawed. There is promise that the American Community Survey itself can feed back important information to the estimates program that may improve both the Bureau's population estimates and the ACS. We encourage and hope to assist with this research and to make available the California data that allows a better estimate of domestic migration.



EVALUATION RESEARCH, SOME OBSERVATIONS TO DATE

The Census Bureau excels in the area of evaluation research. We need research on the ACS within the Bureau, in academia, and in the data user community. We also need ways to coordinate and communicate the research that is done. Whether the American Community Survey is actually collecting different data or collecting the same data in a different way, we need to evaluate the data, understand and communicate the differences, and build conceptual bridges between the traditional long-form data and ACS.

Table 1: California C2SS Race Results

Short Form: Several researchers have compared the 2000 ACS and C2SS data with the Census 2000 short form data. The 2000 ACS is controlled to census 2000 household population and housing counts. For the California C2SS and the state's two ACS sites, San Francisco and Tulare counties, several Census 2000 counts fell outside the range of the ACS upper and lower bounds.

Table 2: California C2SS Hispanic Origin Results

The most notable differences are in the race/ethnicity categories where the ACS records more White race responses and fewer "Some Other" race, "Two or more" races, and Hispanic or Latino Origin in the C2SS. In the ACS sites population data are controlled for the Latino population.

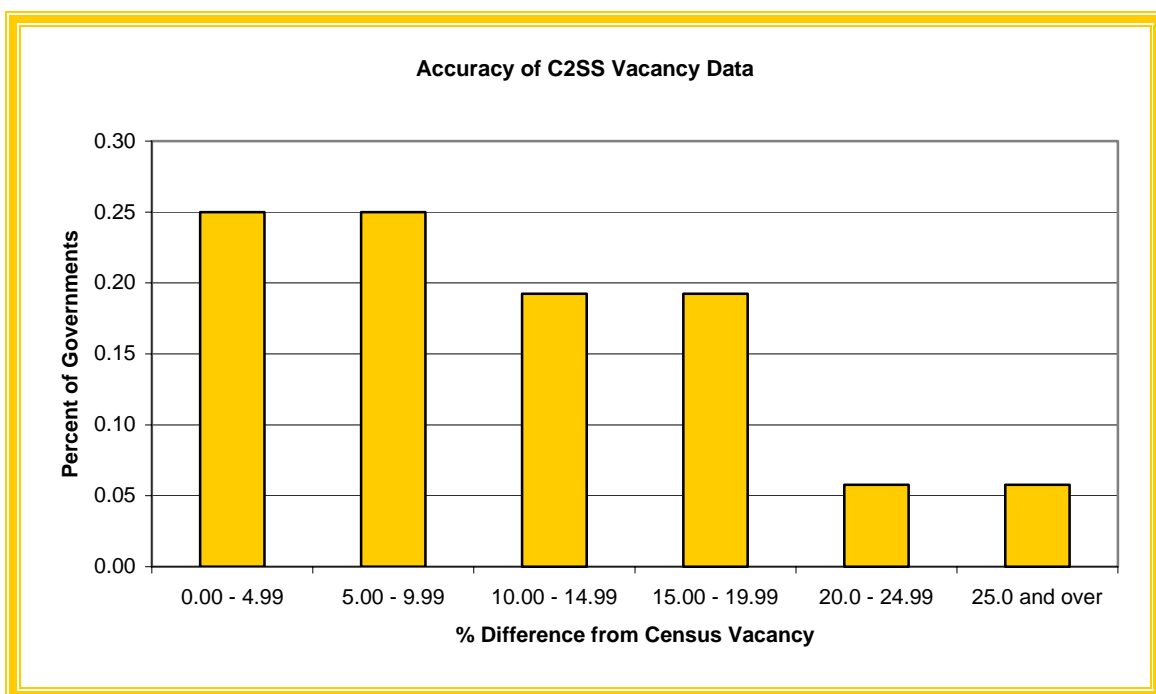
Table 3: California C2SS Housing and Household Results

In general, compared to the Census 2000 short form the ACS data for California

- understate households
- portray different household relationships
- have different average household and family sizes, and
- different owner and renter-occupied units.

Some of these different pictures are related to the measurement of vacancy data. For many measures, even when the census data are outside the ACS range, the census and ACS distributions are similar. But the actual number of people in a category, rather than the proportion, are used to size infrastructure like schools and classrooms and to evaluate service needs and program effectiveness.

Vacancy: Vacancy rates should be pretty easy to measure. Most housing isn't mobile and it's either occupied or vacant. The ACS measures vacancy differently than the decennial census. The Bureau expects to have lower vacancy rates in the ACS because the measure is not for a single reference date, like April 1. The ACS vacancy rates compared to the 2000 census are markedly different. Twenty-five percent of the states are within 5 percent of the census-measured vacancy; another 25 percent are within 10 percent. Fifty percent differ more than 10 percent. Thirty-one percent vary by more than 15 percent. These are large differences that we need to understand better. Vacancy rates in the ACS are not lower than in the census. The C2SS overstates vacancy in the U.S. and most of the states. The actual census results fall outside the C2SS upper or lower estimates (the confidence interval) for the majority of areas, the U.S., 25 states, and the District of Columbia.



Long-Form: There has been no real opportunity to compare the ACS results with actual 2000 long-form data, the data the ACS is designed to replace. Some data from the Census 2000 long form data will be released this month in profiles of selected social, economic, and housing characteristics. It is possible to compare housing but not social and economic characteristics because the population universe is different. For example, the ACS data do not include group quarters, the census does. How significant is the population in group quarters? It represents 1.7 percent of Nevada residents, 2.3 percent of the Washingtonians, and 3.4 percent of those counted in Vermont. These are the first states receiving actual Census 2000 long-form data. This makes it very risky to compare the new long-form profiles with C2SS data.

Tables 4 and 5: Washington C2SS and 2000 Long-Form Housing Data Comparison

A few generalizations about long-form housing data for the State of Washington released two days ago:

- Many census values were not within the range of estimates produced by the C2SS.
- The C2SS understates single detached housing units and the largest structures with 20 or more units.
- Mobile homes, boats, RVs, and vans used as housing units are also understated.

- The median number of rooms in structure is overstated, so the number of persons per room is understated.
- Recent movers, owner-occupied housing units without a mortgage, rented units, households paying high proportions of household income for rent, and houses using electricity for heating fuel are overstated.
- Housing units with utility gas for heating, or with no vehicle, or with a mortgage, and the less valuable owner-occupied units are understated.

It's not so easy to compare C2SS and census data. Besides having different population universes, the aggregated tables are sometimes not identical. The more detailed long-form data necessary to make direct comparisons with the C2SS population data is scheduled for release on a state-by-state basis during June through September of this year. I appeal to the Bureau to make comparison data sets available for census tracts in the 31 ACS sites and, at minimum, for states and counties based on the recent release of the long-form profile data and followed by a richer data set based on the full summary tape 3 offering this summer and fall. We need comparison data sets that make like tables and like universes readily available to data evaluators. A comparison database constructed by the Bureau will enhance analysis of the ACS data, prevent duplication of this effort across the country, and prevent faulty and frivolous analysis based on comparing non-comparable data.

Implementing the Survey and Delivering Results

Diversity of the Population

Foreign-Born Population	1990 Census	%	2000 C2SS	%	Growth
<u>United States</u>					
Foreign-Born Persons	11,416,482	4.6	30,466,222	11.1	167%
<u>California</u>					
Foreign-Born Persons	4,342,026	14.6	8,565,336	25.9	97%
California's % of Foreign-Born		38.0		28.1	

The number of foreign-born persons in the United States nearly tripled between 1990 and 2000. In California, the number *only* doubled. The new immigrant population is diverse geographically, ethnically, and linguistically.

Language Support

Contact points with the ACS household include the survey questionnaire, computer-assisted telephone interview (CATI), and compute-assisted personal interview (CAPI).

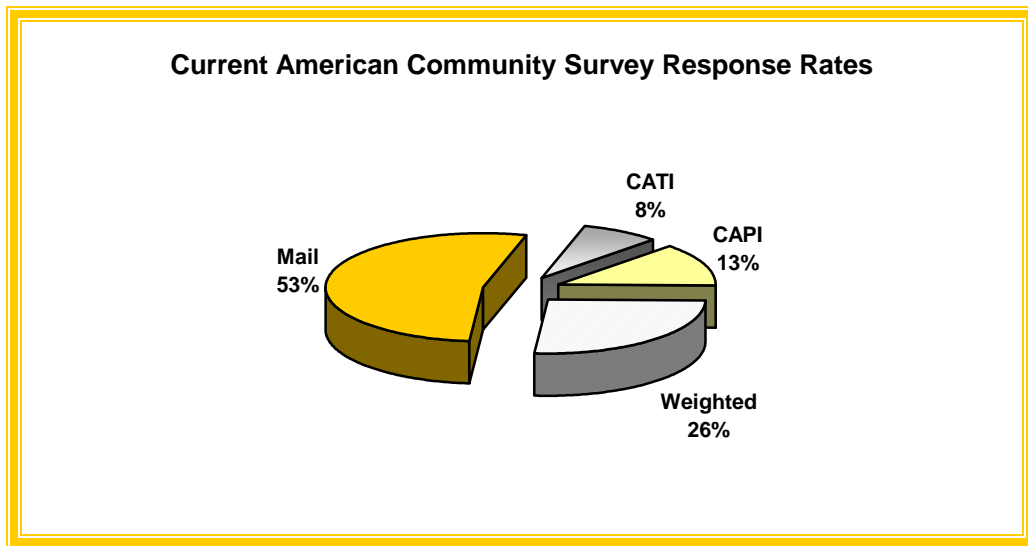
In Census 2000, census forms were available in six languages (English, Spanish, Chinese, Vietnamese, Korean, and Tagalong), telephone assistance was available in these same languages, and translation guides were available in over 49 languages. At this point in the development of the ACS, the form is available to households only in English, telephone assistance is available only in English, and CAPI interviewers have the form in English and Spanish on the laptop computers used to conduct the interviews. The interviews also have limited written Spanish materials, like a letter from the director, available to aid them in demonstrating their legitimacy and gaining the cooperation of the household.

The C2SS shows that 17.6 percent of the population (over 5 years old), one-in-six people speaks a language other than English at home. This percentage is much higher in some states where the rate is one-in-three. Texas has 32 percent non-English speakers, 35.5 percent in New Mexico and 39.5 in California. Twenty-five percent of students in public schools are English learners. There are over 50 **listed** languages spoken in California schools. These languages are not congruent with the 49 language guides used in the 2000 Census.

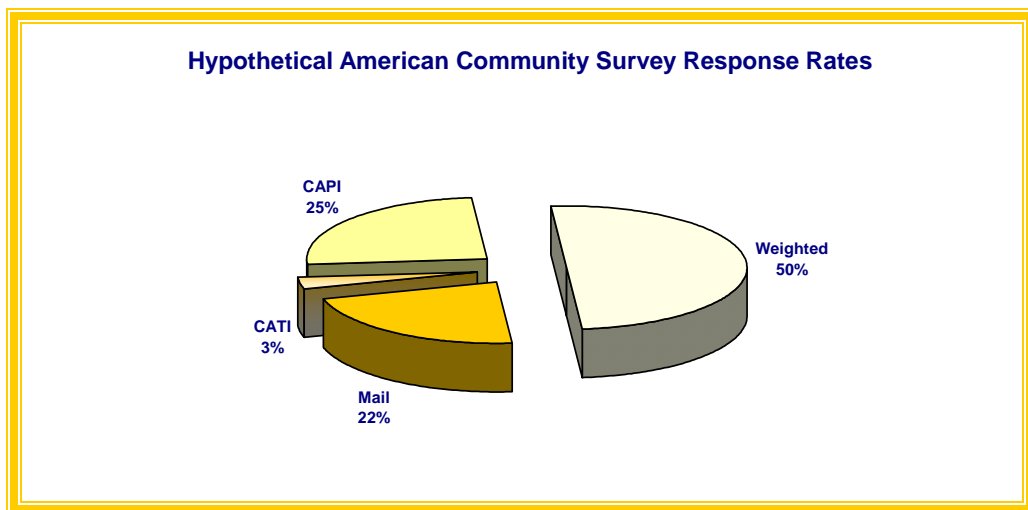
It is important that participation in the ACS be accessible to persons who may need translation assistance when encountering the survey form, telephone assistance, or an enumerator. As in the 2000 Census, participation and language assistance can be enhanced by making the survey or translation guides available in appropriate languages and by hiring a diverse work force with appropriate language skills for both telephone assistance and as enumerators.

Response Rates

The ACS is advertised as having about a 96 percent response rate. Here's how it breaks down: Of 100 households, 53 will return the survey by mail and 8 will be completed by the computer-assisted telephone operation. One-in-three of the 39 households that did not respond are assigned to the computer-assisted personal interview.



Should the follow-up rate be one-in-three in all areas regardless of the combined mail and CATI response rates? Should an area with a 25 percent response rate after mail-ins and CATI be followed-up at a rate of one-in three, leaving half of the data weighted?




Who is most likely not to respond? What groups will have the most data imputed? What are the confidence intervals for these data? Are there better strategies for allocating the non-response follow-up resources based on mail and CATI response rates?

What if needed budgets for the American Community Survey aren't forthcoming even with vigorous support from the data user community? One response might be to cut the sample size. Another might be to dilute the non-response follow-up rate from one-in-three to one-in-four, or five, or six.

Planned Data Release Dates: Nationwide American Community Survey

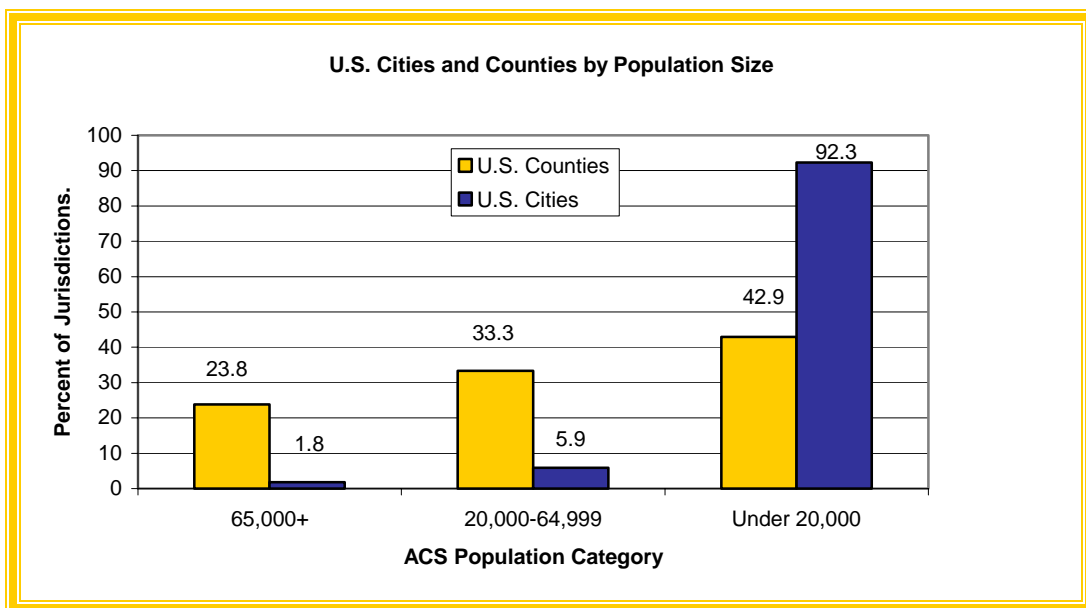
Year	Population		
	65,000 or greater (1-year estimate)	20,000 or greater (3-year average)	Below 20,000 (5-year average)
2004	X		
2005	X		
2006	X	2003-2005	
2007	X	2004-2006	
2008	X	2005-2007	2003-2007
2009	X	2006-2008	2004-2008

X= Average for the previous calendar year



March 2001 Race and Ethnic Advisory Committee

Data from the 2000 Census reveal that fewer than 2 percent of the nation's cities and 24 percent of our counties had populations greater than 65,000, the threshold for producing annual 1-year estimates. About 6 percent of our cities and one-third of the counties are in the middle population range for which the ACS will produce annual estimates averaged over a 3-year collection period. Over 92 percent of our cities and 42 percent of our counties are below 20,000 population. The ACS will not produce data for the vast majority of our jurisdictions until the data collected in 2003 through 2007 are averaged over the 5-year period and published in 2008.



ACS results for communities in smaller populations categories will necessarily come later but need careful evaluation. We need a plan to anticipate the movement of communities and race/ethnic populations among the population categories over time.

The goals of the American Community Survey are to:

- Provide federal, state, and local governments an information base for the administration and evaluation of government programs.
- Improve the 2010 Census.
- Provide data users with timely demographic, housing, social, and economic data updated every year that can be compared across states, communities, and population groups.

I have a deep respect for the Census Bureau staff engaged in the population estimates program and those working on the development of the ACS. They are aware of many of the issues we will raise this morning and are already working on solutions. The Census Bureau has my full support in evaluating and improving the American Community Survey. Let's all work together to make the American Community Survey the best that it can be --a survey that will be adequate to replace the Census 2010 long-form data collection. I leave you with a formula for a successful ACS:

Formula for a successful American Community Survey

Adequate and Stable Funding
Comprehensive Master Address File
Accurate Population Estimates
Robust Language Program
Program Evaluation and Improvement
+ Public Cooperation (Response Rates)
Current, Complete and Accurate Data

Table 1: California C2SS Race Results

California C2SS

RACE	C2SS Estimate	C2SS Lower Bound	C2SS Upper Bound	Census	Difference from Estimate	Distribution C2SS	Distribution Census
One race	31,852,323	31,773,336	31,931,310	31,467,551	-1.22	96.37	95.21
White	22,372,849	22,248,852	22,496,847	19,683,883	-13.66	67.69	59.55
Black or African American	2,048,120	2,002,727	2,093,513	2,132,119	3.94	6.20	6.45
American Indian and Alaska Native	317,981	267,912	368,050	325,065	2.18	0.96	0.98
Asian	3,763,844	3,641,155	3,886,533	3,642,626	-3.33	11.39	11.02
Asian Indian	359,773	284,092	435,454				
Chinese (except Taiwanese)	959,871	912,006	1,007,736				
Filipino	910,651	862,910	958,392				
Japanese	291,169	263,403	318,935				
Korean	332,041	295,294	368,788				
Vietnamese	428,864	381,113	476,615				
Other Asian	360,809	323,979	397,639				
Native Hawaiian and Other Pacific Islander	136,847	111,424	162,270	114,692	-19.32	0.41	0.35
Native Hawaiian	26,657	13,206	40,108				
Guamanian or Chamorro	36,685	22,830	50,540				
Samoan	31,881	18,846	44,916				
Other Pacific Islander	37,044	24,686	49,403				
Some other race	3,212,682	3,099,183	3,326,181	5,569,166	42.31	9.72	16.85
Two or more races	1,199,571	1,120,582	1,278,560	1,584,343	24.29	3.63	4.79
Two races including Some other race	399,926	360,819	439,033				
Two races excl. Some other race and Three+races	799,645	742,930	856,360				
Race alone or in combination with one or more other races:							
White	23,366,708	23,227,879	23,505,537				
Black or African American	2,312,736	2,258,713	2,366,759				
American Indian and Alaska Native	664,413	583,720	745,106				
Asian	4,126,759	4,008,842	4,244,676				
Native Hawaiian and Other Pacific Islander	213,360	180,718	246,002				
Some other race	3,650,464	3,528,235	3,772,693				

Table 2: California C2SS Hispanic Origin Results

California C2SS

	C2SS Estimate	C2SS Lower Bound	C2SS Upper Bound	Census	Difference from Estimate	Distribution C2SS	Distribution Census
HISPANIC ORIGIN AND RACE							
Total population	33,051,894	*****	*****				
Hispanic or Latino (of any race)	10,653,560	10,556,611	10,750,509	10,773,996	1.12	32.23	32.60
Mexican	8,716,179	8,617,060	8,815,298				
Puerto Rican	159,632	141,932	177,332				
Cuban	64,191	51,136	77,246				
Other Hispanic or Latino	1,713,558	1,637,340	1,789,776				
Not Hispanic or Latino	22,398,334	22,301,388	22,495,280				
White alone	15,529,302	15,481,445	15,577,159	15,398,662	-0.85	46.98	46.59
Black or African American alone	2,001,325	1,956,831	2,045,819				
American Indian or Alaska Native alone	213,410	166,075	260,745				
Asian alone	3,715,270	3,593,251	3,837,289				
Native Hawaiian and Other Pacific Islander alone	125,325	99,809	150,841				
Some other race alone	80,848	67,075	94,621				
Two or more races:	732,854	684,720	780,988				
Two races including Some other race	85,160	71,830	98,490				
Two races excl. Some other race and Three+races	647,694	601,771	693,617				
RELATIONSHIP							
Household population	33,051,894	*****	*****	33,051,894	0.00		
Householder	11,796,772	11,733,985	11,859,559	11,502,870	-2.56	35.69	34.80
Spouse	5,853,825	5,792,549	5,915,101	5,877,084	0.40	17.71	17.78
Child	10,293,497	10,207,372	10,379,622	10,519,953	2.15	31.14	31.83
Other relatives	3,012,849	2,927,128	3,098,570	2,848,893	-5.76	9.12	8.62
Nonrelatives	2,094,951	2,027,808	2,162,094	2,303,094	9.04	6.34	6.97
Unmarried partner	701,468	672,355	730,581	683,516	-2.63	2.12	2.07

Table 3: California C2SS Housing and Household Results

	C2SS Estimate	C2SS Lower Bound	C2SS Upper Bound	Census	Difference from Estimate	Distribution C2SS	Distribution Census
HOUSEHOLDS BY TYPE							
Total households	11,384,071	11,322,752	11,445,390	11,502,870	1.03		
Family households (families)	7,746,571	7,687,889	7,805,253	7,920,049	2.19	68.05	68.85
With own children under 18 years	3,970,890	3,920,461	4,021,319	4,117,036	3.55	51.26	51.98
Married-couple families	5,644,628	5,581,643	5,707,613	5,877,084	3.96	49.58	51.09
With own children under 18 years	2,812,758	2,764,956	2,860,560	2,989,974	5.93	49.83	50.88
Female householder, no husband present	1,485,247	1,438,616	1,531,878	1,448,510	-2.54	13.05	12.59
With own children under 18 years	882,928	847,851	918,005	834,716	-5.78	59.45	57.63
Nonfamily households	3,637,500	3,577,153	3,697,847	3,582,821	-1.53	31.95	31.15
Householder living alone	2,796,074	2,748,377	2,843,771	2,708,308	-3.24	24.56	23.54
65 years and over	915,521	891,914	939,128	892,207	-2.61	32.74	32.94
Households with one or more people under 18 years	4,426,188	4,374,926	4,477,450	4,569,910	3.14	38.88	39.73
Households with one or more people 65 years and over	2,505,858	2,477,014	2,534,702	2,570,170	2.50	22.01	22.34
Average household size	2.90	2.88	2.92	2.87	-1.05		
Average family size	3.51	3.49	3.53	3.43	-2.33		
HOUSING OCCUPANCY							
Total housing units	12,214,549	*****	*****	12,214,549			
Occupied housing units	11,384,071	11,322,752	11,445,390	11,502,870	1.03	93.20	94.17
Vacant housing units	830,478	769,159	891,797	711,679	-16.69	6.80	5.83
Homeowner vacancy rate (percent)	1.4	1.2	1.6	1.4	0.00		
Rental vacancy rate (percent)	3.6	3.3	3.9	3.7	2.70		
HOUSING TENURE							
Occupied housing units	11,384,071	11,322,752	11,445,390	11,502,870	1.03		
Owner occupied	6,387,472	6,334,731	6,440,213	6,546,334	2.43	56.11	56.91
Renter occupied	4,996,599	4,928,370	5,064,828	4,956,536	-0.81	43.89	43.09
Average household size of owner-occupied unit	2.98	2.96	3.00	2.93	-1.71	100.00	100.00
Average household size of renter occupied unit	2.81	2.78	2.84	2.79	-0.72		

Table 4: Washington C2SS and 2000 Long-Form Housing Data Comparison

Census 2000 Supplementary Survey Profile (C2SS) --- State of Washington								
PROFILE OF SELECTED HOUSING CHARACTERISTICS								
	(C2SS) Estimate	(C2SS) Lower Bound	(C2SS) Upper Bound	Census	Difference from Census	census	Distribution C2SS	Distribution Census
Total housing units	2,451,076	****	****	2,451,075				
UNITS IN STRUCTURE								
1-unit, detached	1,489,507	1,469,752	1,509,262	1,527,867	-38360	-2.5	60.8%	62.3%
1-unit, attached	76,894	68,517	85,271	75,807	1087	1.4	3.1%	3.1%
2 units	96,942	85,174	108,710	68,836	28106	40.8	4.0%	2.8%
3 or 4 units	110,397	100,674	120,120	92,243	18154	19.7	4.5%	3.8%
5 to 9 units	126,272	111,151	141,393	112,031	14241	12.7	5.2%	4.6%
10 to 19 units	157,236	143,005	171,467	125,087	32149	25.7	6.4%	5.1%
20 or more units	196,669	183,256	210,082	228,720	-32051	-14.0	8.0%	9.3%
Mobile home	191,257	168,682	213,832	207,861	-16604	-8.0	7.8%	8.5%
Boat, RV, van, etc.	5,902	1,360	10,444	12,623	-6721	-53.2	0.2%	0.5%
YEAR STRUCTURE BUILT								
2000	68,632	59,734	77,530					
1995 to 1999	227,143	211,633	242,653					
(1995 to March 2000)	295,775	271,367	320,183	286,199	9576	3.3	12.1%	11.7%
1990 to 1994	252,873	225,754	279,992	244,670	8203	3.4	10.3%	10.0%
1980 to 1989	387,166	358,941	415,391	397,167	-10001	-2.5	15.8%	16.2%
1970 to 1979	493,869	461,963	525,775	496,088	-2219	-0.4	20.1%	20.2%
1960 to 1969	292,373	272,080	312,666	305,318	-12945	-4.2	11.9%	12.5%
1950 to 1959	239,585	222,928	256,242					
1940 to 1949	184,427	171,862	196,992					
(1940 to 1959)	424,012	394,790	453,234	414,555	9457	2.3	17.3%	16.9%
1939 or earlier	305,008	263,926	346,090	307,078	-2070	-0.7	12.4%	12.5%

Table 5: Washington C2SS and 2000 Long-Form Housing Data Comparison

Census 2000 Supplementary Survey Profile (C2SS) --- State of Washington								
PROFILE OF SELECTED HOUSING CHARACTERISTICS								
	(C2SS) Estimate	(C2SS) Lower Bound	(C2SS) Upper Bound	Census	Difference from Census	% Difference from estimate	Distribution C2SS	Distribution Census
ROOMS								
1 room	53,841	44,241	63,441	72,323	-18482	-25.6	2.2%	3.0%
2 rooms	141,181	125,037	157,325	143,347	-2166	-1.5	5.8%	5.8%
3 rooms	268,311	247,899	288,723	249,715	18596	7.4	10.9%	10.2%
4 rooms	437,880	418,836	456,924	378,808	59072	15.6	17.9%	15.5%
5 rooms	462,334	428,872	495,796	431,978	30356	7.0	18.9%	17.6%
6 rooms	384,416	369,690	399,142	400,758	-16342	-4.1	15.7%	16.4%
7 rooms	303,208	283,611	322,805	310,645	-7437	-2.4	12.4%	12.7%
8 rooms	186,987	174,930	199,044	219,726	-32739	-14.9	7.6%	9.0%
9 rooms or more	212,918	189,203	236,633	243,775	-30857	-12.7	8.7%	9.9%
Median (rooms)	5.7	5.5	5.9	5.4	0	5.6		
Occupied housing units	2,275,300	2,247,319	2,303,281	2,271,398	3902	0.2		
YEAR HOUSEHOLDER MOVED INTO UNIT								
2000	264,723	249,668	279,778					
1995 to 1999	1,019,306	994,775	1,043,837					
(1995 to 2000)	1,284,029	1,244,443	1,323,615	1,230,459	53570	4.4	56.4%	54.2%
1990 to 1994	361,520	340,644	382,396	377,287	-15767	-4.2	15.9%	16.6%
1980 to 1989	320,137	303,657	336,617	332,146	-12009	-3.6	14.1%	14.6%
1970 to 1979	178,701	168,253	189,149	184,974	-6273	-3.4	7.9%	8.1%
1969 or earlier	130,913	118,231	143,595	146,532	-15619	-10.7	5.8%	6.5%
VEHICLES AVAILABLE								
No vehicles available	146,540	133,870	159,210	168,376	-21836	-13.0	6.4%	7.4%
1	731,635	706,707	756,563	720,922	10713	1.5	32.2%	31.7%
2	894,120	873,667	914,573	894,011	109	0.0	39.3%	39.4%
3 or more	503,005	485,268	520,743	488,089	14916	3.1	22.1%	21.5%