

The Improvement in California's Mail Response Rate in Census 2000

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January 2001

ACKNOWLEDGMENTS

This report was prepared by **Martha Jones** under the general direction of **Linda Gage**, Chief, Demographic Research Unit.

Mary Heim, Assistant Chief, provided conceptual review. **David Dodds** provided technical review and on-going mapping support. **Julie Hoang** provided technical mapping support. **Dolores Lykins** provided administrative support.

SUGGESTED CITATION:

State of California, Department of Finance, *The Improvement in California's Mail Response Rate in Census 2000. January 2001.*

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Introduction

A lot of people in California were not counted in the 1990 Census. California had an undercount of 840,000 persons, or about 20 percent of the national undercount of four million persons¹. California's undercount rate of 2.7 percent, which is the ratio of its undercount to its own population size, was much higher than the national undercount rate of 1.6 percent. Estimates show that this undercount cost California one seat in Congress and federal funding valued at \$2.2 billion during the decade². Within the state, the undercount was unevenly distributed across counties and population groups. Some groups, such as children and minorities, were missed at higher rates than others. This disparity is referred to as the differential undercount.

In an effort to avoid another large and differential undercount (more persons in minority populations were missed) in Census 2000, Governor Davis authorized an extensive census outreach program and established the California Complete Count Committee. The Legislature appropriated approximately \$25 million in funds, making California the only state in the nation to approve a census outreach program of this magnitude. In addition to increasing overall awareness of Census 2000 statewide, the campaign addressed the differential undercount problem by targeting groups with high 1990 undercount rates: African Americans, Latinos, Native Americans, Asian Americans or Pacific Islanders, children, males age 18 to 28, homeless, and migrant and seasonal workers.

The Complete Count Campaign contracted with community organizations to target these local populations. Like the U.S. Census Bureau's paid advertisements, the campaign's main focus was to encourage people to send in their form by mail. However, the campaign targeted undercounted groups in specific local areas in California. For people who needed help filling out the form, the campaign funded questionnaire assistance centers and publicized their locations. These state-funded centers were resources available to people in addition to the questionnaire assistance centers operated by the U.S. Census Bureau. During the period of non-response follow-up, the campaign message was to encourage people to cooperate and "open your door" to U.S. Census Bureau enumerators.

Extensive evaluation of the success of outreach efforts such as the Complete Count Campaign and the U.S. Census Bureau's advertisements in reducing the undercount in Census 2000 will be undertaken when redistricting data are released in March 2001³. In the

¹ The undercount figures referred to in this report are the net undercount, which represent the gross undercount (people missed) minus the overcount (people counted more than once). The U.S. Census Bureau estimated the 1990 undercount using the results of a sample survey after the actual enumeration.

² U.S. General Accounting Office, February 1999.

³ The U.S. Census Bureau currently plans to release both adjusted and unadjusted numbers by April 1, 2001. The undercount is the difference between the adjusted and unadjusted counts.

meantime, since the main focus of the outreach was to encourage people to mail in their census form, one way to measure the campaign's effectiveness is to analyze the improvement in mail response between 1990 and 2000. While an improvement in an area's mail response does not always result in a decrease in the undercount, changes in mail response can be used as a general indicator of the level of participation in Census 2000 and of the likely direction of change in the undercount between 1990 and 2000.⁴

Census 2000 Mail Response in California

In the State of California, the mail response rate rose from 65 percent in the 1990 Census to 70 percent in Census 2000⁵. These impressive results were obtained despite widespread expectations of a decline in census participation: the U.S. Census Bureau had projected a Census 2000 mail response rate of only 58 percent in California. California's response rate improved not only in relation to its own response in 1990 but also in relation to the national response. In 1990, California's mail response rate was the same as the national rate of 65 percent; in 2000, its rate of 70 percent was 3 percentage points higher than the national rate of 67 percent. California's 70 percent response was also significantly higher than the rates obtained in other large states: Texas's Census 2000 response rate was 64 percent; Florida and New York's rates were both 63 percent. Moreover, the amount of improvement between 1990 and 2000 in these other large states was 3 percentage points or less. California is one of only five states that met the U.S. Census Bureau's *'90 Plus Five* challenge to better their 1990 rate by five percentage points or more.⁶ The other four states meeting their target were Massachusetts, Rhode Island, Wyoming and Nevada. Mail response rates for the nation and the 50 states are displayed in Table 1.

To compare mail response between the two decennial censuses, mail response rates for the cities, counties, and census tracts enumerated by mail in 1990 and 2000 are analyzed. Jurisdictions enumerated by mail in both years are referred to as "comparison jurisdictions". In which of these jurisdictions did Census 2000 mail response rates improve? In how many of these jurisdictions did Census 2000 mail response rates meet their *'90 Plus Five* target? What are the demographic characteristics of these jurisdictions and where are they located?

⁴ An improvement in mail response does not necessarily mean a lower undercount. An increase in the mail response rate can mean a change in the timing of when people respond to the census or it can mean that individuals mailed in their form who would not have otherwise participated at all. If the latter were the case and as a result more people were counted, then the improvement in mail response would result in a smaller undercount. If the effect of the campaign were to encourage mail response among people who would have eventually cooperated anyway with door-to-door enumerators during non-response follow-up, then census outreach saved the federal government money by reducing the non-response follow-up case load but it would not reduce the undercount. In general, improvement in mail response in an area usually does result in a lower undercount.

⁵ Data source: U.S. Census Bureau, Census 2000 final mail response rates. State, city, and county data were posted on the Bureau's website <http://www.census.gov/> on September 19, 2000. These data include census forms received through the mail, internet or over the phone as of September 7, 2000. The mail response rate is defined as the number of mail returns divided by the mail out universe, which includes occupied plus vacant units. The mail return rate, which includes only occupied units in the denominator, is a better indicator of census participation, but will not be available until 2001.

⁶ A jurisdiction's *'90 Plus Five* target rate is 5 percentage points higher than its 1990 mail response rate.

Compared with the 1990 census, Census 2000 mail response rates improved or remained the same in areas enumerated by mail in both years for:

- 87 percent of the counties
- 90 percent of the cities
- 84 percent of the census tracts in California

About half of these jurisdictions met or exceeded their '90 *Plus Five* target rates (Table 2).

To illustrate where jurisdictions with improvements are located, mail response data are displayed in tables and maps. In Table 3, county mail response rates for 1990 and 2000 are sorted first alphabetically by county name, then by the percentage point improvement between censuses, by the 2000 rate, and finally by the 1990 rate. The sort by percentage point improvement (sort #2) shows the 40 counties with Census 2000 response rates at least as high as their 1990 level and highlights in bold the 20 counties that met or exceeded their '90 *Plus Five* target rates. The seven counties with the largest percentage point improvements were Stanislaus, Imperial, Madera, Alameda, Orange, Tulare and Yolo. Only six counties had lower response rates in 2000 than in 1990.

Where did Census 2000 mail response rates improve? In many cases, large improvements occurred in areas with low levels of mail response in 1990. Imperial County is a good example of a jurisdiction with a large improvement in mail response (9 percentage points), but a relatively low level of response in 1990 (51 percent) and 2000 (60 percent). Ventura County, on the other hand, had the highest level of mail response in the state in both years, 76 percent, but its mail response rate did not improve in Census 2000.

Maps showing mail response rates are included at both the county level (Map 1) and the tract level (Maps 2 and 3). Areas enumerated by census takers instead of by mail are shown in white and are labeled "Missing Data" in the legend. In Census 2000, more areas in California were enumerated by mail than in the 1990 Census. Areas enumerated by mail for the first time in 2000 tend to have relatively low levels of mail response. Areas shaded in blue had mail response rates of 65 percent or higher while areas with rates less than 65 percent are shaded in gold. It is interesting to compare the maps at the county and the tract level for the same year. The Census 2000 county map, for example, gives the impression that most of the low response is in Northern California (Map 1). The Census 2000 tract map shows a more detailed, complicated picture with low response tracts spread throughout all counties (Map 3). In general, lower response rates are located in rural areas. While all counties were at least partially enumerated by mail in 2000, some areas of the state were still enumerated only by census takers.

Maps 4 and 5 display the difference in mail response rates between 1990 and 2000, by county and tract respectively. The difference in rates was calculated for jurisdictions enumerated by mail in both years. The blue shading shows counties or tracts with Census

2000 response rates at least as high as the 1990 rates. In the dark blue areas, Census 2000 response rates met or exceeded their '90 *Plus Five* target rates. A quick glance at these difference maps at either the county or the tract level shows a lot of blue – in other words, improvement in mail response between the 1990 Census and Census 2000 was spread widely across the state.

Characteristics of Census Tracts Showing Improvement in Mail Response

What are the demographic characteristics of tracts showing improvement in mail response? Table 4 shows average characteristics for the following groups of census tracts:

1. All tracts with a non-zero population in 1990
2. Comparison tracts (tracts with response rates in 1990 and 2000)
3. Tracts with a Census 2000 response rate that maintains or improves its 1990 rate
4. Tracts with a Census 2000 response rate that meets its '90 *Plus Five* target
5. Tracts with a Questionnaire Assistance Center (QAC) funded by the California Complete Count Committee (CCC)⁷

Improvements in mail response occurred, on average, in tracts with larger populations, fewer rural residents, more minority residents, and higher 1990 undercounts. From 1990 to 2000, mail response rates in comparison tracts increased an average of 5 percentage points, from 66 percent in 1990 to 71 percent in 2000. Large improvements in mail response, such as the average 10 percentage point improvement made by tracts that met their '90 *Plus Five* target, occurred in tracts with lower levels of response in 1990. The average 1990 mail response rate for these '90 *Plus Five* tracts was only 61 percent.

The 458 tracts with a Questionnaire Assistance Center (QAC) funded by the State's Complete Count Committee (CCC) had a low average 1990 response rate of 56 percent and increased their response rate in Census 2000 by 8 percentage points. These tracts had high percentages of African Americans, Hispanics, renters, persons living below poverty level and linguistically-isolated households. The tracts with QACs funded by the CCC also had large numbers of persons undercounted in 1990, high undercount rates and were generally hard to count. To quantify this notion of "hard-to-count" and summarize the attributes of census tracts in terms of their enumeration difficulty, the U.S. Census Bureau devised a composite index called the hard-to-count score (HTC), which ranges from 0 to 132. In general, the higher the HTC score, the higher the expected undercount and the lower the expected mail response rate. The HTC scores of tracts with state-funded QACs averaged 67, which is 26 percentage points higher than the average HTC score of 41 across all tracts. Despite their hard-to-count populations, these tracts targeted by the CCC made large improvements in Census 2000 mail response. Map 6 shows the number of state-funded QACs by zip code. Insets provide enlargements for the Los Angeles, San Diego and San Francisco Bay areas.

⁷ There were 458 tracts with a stationary QAC funded by the California CCC. Most tracts had only one or two QACs, but some had more, up to a maximum of nine per tract. Mobile QACs were not included in the analysis due to incomplete addresses in the master file. QACs administered by the U.S. Census Bureau were not included either.

In the following sections, large improvements in mail response, measured by the number of tracts that met their '90 *Plus Five* target, will be examined with respect to these four variables:

- 1990 Net Undercount
- Race/Ethnicity
- Hard-to-Count Score
- Urban/Rural Population

1990 Net Undercount and Large Improvements in Mail Response

What is the improvement in mail response for counties and cities with a high 1990 net undercount? In 1990, areas with a high undercount often had low mail response rates. Among the counties and cities with the highest numbers of persons undercounted in the 1990 census (Table 5), only the City of Sacramento did not improve its mail response rate in Census 2000. The largest improvement at the county level, 7 percentage points, was attained in Alameda and Orange counties. Improvements of 11 percentage points or more were realized by the cities of Santa Ana, Inglewood, Anaheim, Compton, El Monte, Hawthorne, and Lynwood. Seven of the ten counties with the highest undercount and 28 of the 35 cities with the highest undercount met or exceeded their '90 *Plus Five* target rates (Table 5).

At the census tract level, how does improvement in mail response vary with respect to the 1990 net undercount? In Census 2000, 53 percent of California's comparison tracts met their '90 *Plus Five* target rates (Table 6). If comparison tracts are sorted by the number of persons undercounted in 1990 and then divided into quartiles (4 equal groups of 1,346 tracts each), the following percentages of tracts met their target in Census 2000:

- 4th quartile: 74 percent (of the 1,346 tracts with the highest undercount in 1990)
- 3rd quartile: 59 percent
- 2nd quartile: 47 percent
- 1st quartile: 32 percent (of the 1,346 tracts with the lowest undercount in 1990)

A higher percentage of tracts in each quartile met their target in Census 2000 mail response as the number of undercounted persons per tract increases. In general, the higher the undercount in 1990, the greater the improvement in Census 2000 mail response rates.

Although the largest percentage of tracts meeting their target is among tracts with the highest undercount in 1990 (74 percent), these tracts generally had significantly lower mail response than tracts with a low 1990 undercount. For tracts with the highest undercount, the improvement runs more than 7 percentage points, raising the average mail response rate from 58 percent in 1990 to 65 percent in 2000 (Table 6). This is a large improvement, but 65 percent is still 12 percentage points lower than the 77 percent average rate in Census 2000 for the tracts with the lowest undercount. Graph 1 clearly illustrates the pattern for Table 6:

As the number of undercounted persons per tract increases from the 1st to the 4th quartile, there is more improvement, but lower average levels of mail response.

Maps 7 to 12 show the spatial relationship between 1990 undercount data and improvement in mail response. An overview of the location of undercounted persons in 1990 across California is provided in Map 7. The location of comparison tracts in each undercount quartile is shown in Map 8. To isolate the difference in mail response rates for comparison tracts with the highest undercount, maps 9 to 12 shade only the 4th quartile tracts. Map 9 shows the difference in mail response rates for all 4th quartile tracts in the state. Maps 10 to 12 give a more detailed view of Southern California and the San Francisco Bay Area. The striking feature in all these difference maps for the 4th undercount quartile is the large number of blue census tracts, indicating widespread improvement in mail response between the 1990 Census and Census 2000. By and large, most tracts with high numbers of undercounted persons in 1990 show large improvements in mail response between 1990 and 2000.

Table 7 examines mail response in the 250 comparison tracts with the highest numbers of people in various groups, such as the number of persons undercounted in 1990, race/ethnic categories, and rural tracts. Among the 250 tracts with the highest undercount in 1990, 84 percent have 2000 mail response rates that met or exceeded their *'90 Plus Five* target rates. The average improvement in response rates is about 10 percentage points, from 54 percent in 1990 to 64 percent in 2000.

Race/Ethnicity and Large Improvements in Mail Response

Tracts with large numbers of minority residents registered substantial improvements in mail response in Census 2000, and most met their *'90 Plus Five* target rates. After sorting comparison tracts by the number of persons in each race/ethnic group, the 250 tracts with the largest number of people in each group were selected (Table 7). Out of the top 250 tracts in each group, the percentage that met their *'90 Plus Five* target ranged from 50 percent to 85 percent. These percentages are quite high considering only about half of all tracts across the state met their target (Table 1 and Table 5).

The percentage of tracts meeting their *'90 Plus Five* target varied across race/ethnic groups:

- *High percentages of tracts with predominantly Hispanic or African American populations met their target rates.* Among the 250 tracts with the largest African American populations in 1990, 85 percent met their target. Similarly, 82 percent of the 250 tracts with the largest Hispanic populations met their target.
- For the 250 tracts with large *Asian or Pacific Islander populations*, the percentage that met their *'90 Plus Five* target was 66 percent, lower than the percentages for Hispanics and for African Americans but still higher than the statewide percentage of 50 percent.

- *The two groups showing the least improvement were Whites⁸ and American Indians. Sixty-two percent of the 250 tracts with the largest White populations met their target rate while only 58 percent of the 250 tracts with the largest American Indian, Eskimo or Aleut populations met their target rate.*

In addition to meeting their target, predominantly African American or Hispanic tracts also had high percentage point gains in mail response between the two censuses. In the top 250 tracts for each group, African Americans and Hispanics both increased their mail response rates by about 10 percentage points between 1990 and 2000. African Americans, however, started from a lower level of 1990 average response (53 percent) than Hispanics (59 percent). The tracts with large Asian and Pacific Islander populations improved their mail response rates by an average of seven percentage points.

In terms of the average level of mail response in Census 2000, tracts with large numbers of Whites or Asians have noticeably higher average mail response rates, at almost 75 percent, than tracts with large number of American Indians (65 percent) or especially African Americans (62 percent). For tracts with large numbers of Hispanics, the average level of mail response improved to almost 70 percent in Census 2000.

The Hard-to-Count Score and Large Improvements in Mail Response

The hard-to-count score (HTC) summarizes attributes of each tract in terms of enumeration difficulty. Variables correlated with mail non-response and undercounting are used to derive the HTC.⁹ Tract-level data show success in raising Census 2000 response rates in hard-to-count tracts (Table 8). When tracts are grouped by their 1990 hard-to-count score, the percentage meeting their '90 *Plus Five* target increases as their hard-to-count score increases.

- Hard to Count: HTC ≥ 70 72 percent met their '90 *Plus Five* target
- Moderately difficult: $30 \leq \text{HTC} < 70$ 60 percent met their '90 *Plus Five* target
- Easier to Count: HTC < 30 37 percent met their '90 *Plus Five* target

This general pattern of large mail response improvements in hard-to-count tracts is also found when individual counties are examined. In the county of Los Angeles, for example, an overwhelming 79 percent of hard-to-count tracts met their '90 *Plus Five* target (Table 8).

As in the case of the undercount quartiles, the average improvement in mail response between HTC groups increases as tracts become harder to count. Mail response rates in easier-to-count tracts improved only 3 percentage points but increased 8 percentage points in hard-to-count tracts. In terms of response level, easier-to-count tracts have an average

⁸ Not of Hispanic Origin.

⁹ The HTC is a composite of 12 variables: housing indicators, such as percent renter, multi-units, crowded housing, lack of telephones, vacancy, and population characteristics, such as poverty, high school dropout, unemployment, complex household, mobility, linguistic isolation. The HTC score ranges from 0 to 132.

Census 2000 mail response of 77 percent, about 16 percentage points higher than the average 61 percent response for hard-to-count tracts in Census 2000.

Urban/Rural Population and Large Improvements in Mail Response

Rural tracts show less improvement and low average levels of mail response compared with the other groups considered (Table 7). Fifty percent of the 250 comparison tracts with the largest numbers of rural residents met their '90 *Plus Five* target rate in Census 2000, just below the 53 percent overall percentage improvement among the state's comparison tracts. The average level of mail response in rural tracts is low—62 percent in Census 2000—and rural tracts registered the smallest improvement—only 4 percentage points—of all the groups in Table 7. Results for rural tracts should be interpreted with caution, however, as many rural tracts were not enumerated by mail in either 1990 or 2000 and were omitted from the analysis. Most tracts enumerated by mail for the first time in Census 2000 are rural. Thus, the average levels for Census 2000 mail response reported here may not accurately reflect the mail response of all rural tracts. Maps 1 and 3, which display Census 2000 mail response rates by county and by tract, show that response rates in rural areas were often lower than 65 percent (yellow) and in many cases lower than 58 percent (gold).

Summary

Despite expectations of decline in census participation, California's mail response rate showed significant improvement in Census 2000. The final response rate was 70 percent, an increase of five percentage points since 1990. These gains were spread widely across the state. In nearly 90 percent of the counties, cities and tracts with mail response data in both years, mail response rates were at least as high in Census 2000 as they were in 1990. Large improvements in response were also realized: about half of these jurisdictions met their '90 *Plus Five* target for mail response. Improvements in mail response occurred, on average, in census tracts with urban populations, more minority residents, and higher 1990 undercounts. Large improvements in mail response tended to occur in tracts with relatively low levels of response in 1990.

This analysis looked in detail at Census 2000 mail response in tracts with high concentrations of the following groups in 1990: undercounted persons, major race and ethnic groups, hard-to-count tracts, and rural residents. The categories showing the most success in improving mail response were tracts with high 1990 undercounts, large African American or Hispanic populations, and high hard-to-count scores. These groups showed large improvements in mail response between censuses, but had relatively low average rates compared with other groups. The percentages of tracts with high concentrations of Asians or Whites (not of Hispanic Origin) that improved mail response was also considerable, but perhaps more striking was their high average levels of response. Tracts with large numbers of rural residents, on the other hand, showed less improvement as well as low average levels of response compared with other groups.

Census 2000 mail response rates provide preliminary evidence of a successful outreach effort by the California Complete Count Committee. Tracts with questionnaire assistance centers funded by the Complete Count Committee had populations that were hard to count in 1990, including high proportions of African Americans, Hispanics, renters, persons below poverty level and linguistically isolated households. These tracts improved their mail response rate by an impressive 8 percentage points in Census 2000, which hopefully will mean a lower undercount in Census 2000 than they had in the 1990 Census.

Table 1: Final Mail Response Rates for States
Sorted by Improvement between 1990 and 2000

	Census 2000 Final Mail Response Rate (percent)	'90 Plus Five Target Rate (percent)	1990 Final Mail Response Rate (percent)	Improvement between 1990 and 2000 (percentage points)	Rank
National	67	70	65	2	
-- California	70	70	65	5	1
-- Massachusetts	69	69	64	5	2
-- Rhode Island	67	67	62	5	3
-- Wyoming	66	66	61	5	4
-- Nevada	66	66	61	5	5
-- Connecticut	70	71	66	4	6
-- New Hampshire	67	68	63	4	7
-- Alaska	56	57	52	4	8
-- Colorado	70	72	67	3	9
-- New Jersey	68	70	65	3	10
-- Texas	64	66	61	3	11
-- Maine	61	63	58	3	12
-- Virginia	72	75	70	2	13
-- Georgia	65	68	63	2	14
-- Florida	63	66	61	2	15
-- Louisiana	60	63	58	2	16
-- Nebraska	75	79	74	1	17
-- Illinois	69	73	68	1	18
-- Montana	68	72	67	1	19
-- Utah	68	72	67	1	20
-- Oregon	68	72	67	1	21
-- Oklahoma	64	68	63	1	22
-- North Carolina	64	68	63	1	23
-- New York	63	67	62	1	24
-- Arizona	63	67	62	1	25
-- Mississippi	63	67	62	1	26
-- South Carolina	59	63	58	1	27
-- Iowa	76	81	76	0	28
-- South Dakota	74	79	74	0	29
-- North Dakota	72	77	72	0	30
-- Missouri	69	74	69	0	31
-- Tennessee	65	70	65	0	32
-- New Mexico	62	67	62	0	33
-- Minnesota	75	81	76	-1	34
-- Michigan	71	77	72	-1	35
-- Kansas	71	77	72	-1	36
-- Maryland	69	75	70	-1	37
-- Washington	66	72	67	-1	38
-- Arkansas	64	70	65	-1	39
-- West Virginia	64	70	65	-1	40
-- Alabama	61	67	62	-1	41
-- Wisconsin	75	82	77	-2	42
-- Hawaii	60	67	62	-2	43
-- Ohio	72	80	75	-3	44
-- Pennsylvania	70	78	73	-3	45
-- Indiana	69	77	72	-3	46
-- Idaho	67	75	70	-3	47
-- Kentucky	66	74	69	-3	48
-- Vermont	61	69	64	-3	49
-- Delaware	63	73	68	-5	50

States in bold maintained or improved their 1990 mail response rate in Census 2000.

DATA SOURCE: Census 2000 Final Mail Response Rates for Interim Census Tracts, updated September 19, 2000 on the internet: <http://www.census.gov/>. Census 2000 data include responses received as of September 7, 2000. 1990 response rates are from 1990 Data for Census 2000 Planning ("Planning Database"), US Census Bureau, November 18, 1999.

Table 2: Improvement in Mail Response Across California Jurisdictions between 1990 and Census 2000

JURISDICTIONS THAT MAINTAIN OR IMPROVE THEIR 1990 MAIL RESPONSE RATE IN CENSUS 2000

	<u>all jurisdictions</u>	<u>comparison jurisdictions**</u>	Jurisdictions with a Census 2000 mail response rate that maintains or improves the <u>1990 rate</u>	Jurisdictions that "maintain or improve" as a percentage of all <u>jurisdictions</u>	Jurisdictions that "maintain or improve" as a percentage of <u>comparison jurisdictions</u>
county	58	46	40	69%	87%
city	471	423	379	80%	90%
census tract*	5,642	5,384	4,536	80%	84%

JURISDICTIONS THAT MEET THEIR '90 PLUS FIVE TARGET IN CENSUS 2000

	<u>all jurisdictions</u>	<u>comparison jurisdictions**</u>	Jurisdictions that meet their <u>'90 Plus Five target</u>	Jurisdictions that meet their target as a percentage of all <u>jurisdictions</u>	Jurisdictions that meet their target as a percentage of <u>comparison jurisdictions</u>
county	58	46	20	34%	43%
city	471	423	239	51%	57%
census tract*	5,642	5,384	2,850	51%	53%

* Census tracts with zero population in 1990 are omitted. Of the 5,858 tracts in California, 5,642 tracts had at least 1 resident in 1990.

** Comparison jurisdictions are those that had a mail response rate in both 1990 and 2000. Jurisdictions with a mail response rate in only one year, or in neither year, are omitted from the analysis. In California, 45 tracts had a rate in 1990 but none in 2000; 164 tracts had a rate in 2000 but none in 1990; 265 tracts did not have a rate in either year. In total, 474 tracts are omitted, leaving 5384 comparison tracts, or 95 percent (=5384/5642) of populated tracts.

DATA SOURCE: 1990 Data for Census 2000 Planning (the "Planning Database"), US Census Bureau, November 18, 1999; Census 2000 Final Mail Response Rates for Interim Census Tracts, updated September 19, 2000 on the internet: <http://www.census.gov/> Census 2000 data include responses received as of September 7, 2000.

Table 3: Improvement in Mail Response for California Counties
Sorted by County, by Improvement, by Census 2000 Rate and by 1990 Rate

sort #1				sort #2				sort #3				sort #4				
Sort by County Name				Sort by Improvement from 1990 to 2000				Sort by Census 2000 rate				Sort by 1990 rate				
County	1990	2000	1990 to 2000	County	1990	2000	1990 to 2000	rank	County	1990	2000	1990 to 2000	County	1990	2000	1990 to 2000
California	65	70	5	California	65	70	5		California	65	70	5	California	65	70	5
Alameda	65	72	7	Stanislaus	64	74	10	1	Orange	69	76	7	Ventura	76	76	0
Alpine	NA	54	NA	Imperial	51	60	9	2	Ventura	76	76	0	Contra Costa	71	75	4
Amador	NA	66	NA	Madera	60	68	8	3	Contra Costa	71	75	4	Marin	71	73	2
Butte	63	66	3	Alameda	65	72	7	4	San Mateo	70	75	5	Santa Clara	71	75	4
Calaveras	NA	56	NA	Orange	69	76	7	5	Santa Clara	71	75	4	Napa	70	72	2
Colusa	58	64	6	Tulare	60	67	7	6	Stanislaus	64	74	10	San Mateo	70	75	5
Contra Costa	71	75	4	Yolo	67	74	7	7	Yolo	67	74	7	Orange	69	76	7
Del Norte	NA	57	NA	Colusa	58	64	6	8	Marin	71	73	2	Santa Barbara	69	71	2
El Dorado	66	61	-5	Fresno	63	69	6	9	San Diego	68	73	5	Placer	68	67	-1
Fresno	63	69	6	Kern	60	66	6	10	Alameda	65	72	7	San Diego	68	73	5
Glenn	62	65	3	Los Angeles	64	70	6	11	Napa	70	72	2	San Luis Obispo	68	66	-2
Humboldt	66	65	-1	Monterey	62	68	6	12	Solano	67	72	5	San Benito	67	69	2
Imperial	51	60	9	Riverside	59	65	6	13	Santa Barbara	69	71	2	Solano	67	72	5
Inyo	66	66	0	Kings	62	67	5	14	Sonoma	67	71	4	Sonoma	67	71	4
Kern	60	66	6	San Bernardin	63	68	5	15	Los Angeles	64	70	6	Yolo	67	74	7
Kings	62	67	5	San Diego	68	73	5	16	Merced	66	70	4	El Dorado	66	61	-5
Lake	46	50	4	San Joaquin	64	69	5	17	Sutter	65	70	5	Humboldt	66	65	-1
Lassen	NA	53	NA	San Mateo	70	75	5	18	Fresno	63	69	6	Inyo	66	66	0
Los Angeles	64	70	6	Solano	67	72	5	19	San Benito	67	69	2	Merced	66	70	4
Madera	60	68	8	Sutter	65	70	5	20	San Joaquin	64	69	5	Sacramento	66	67	1
Marin	71	73	2	Contra Costa	71	75	4	21	Shasta	65	69	4	Alameda	65	72	7
Mariposa	NA	60	NA	Lake	46	50	4	22	Madera	60	68	8	Santa Cruz	65	67	2
Mendocino	59	59	0	Merced	66	70	4	23	Monterey	62	68	6	Shasta	65	69	4
Merced	66	70	4	San Francisco	64	68	4	24	San Bernardino	63	68	5	Sutter	65	70	5
Modoc	NA	54	NA	Santa Clara	71	75	4	25	San Francisco	64	68	4	Los Angeles	64	70	6
Mono	NA	31	NA	Shasta	65	69	4	26	Kings	62	67	5	Nevada	64	55	-9
Monterey	62	68	6	Sonoma	67	71	4	27	Placer	68	67	-1	San Francisco	64	68	4
Napa	70	72	2	Tehama	60	64	4	28	Sacramento	66	67	1	San Joaquin	64	69	5
Nevada	64	55	-9	Yuba	58	62	4	29	Santa Cruz	65	67	2	Stanislaus	64	74	10
Orange	69	76	7	Butte	63	66	3	30	Tulare	60	67	7	Butte	63	66	3
Placer	68	67	-1	Glenn	62	65	3	31	Amador	NA	66	NA	Fresno	63	69	6
Plumas	NA	48	NA	Marin	71	73	2	32	Butte	63	66	3	San Bernardino	63	68	5
Riverside	59	65	6	Napa	70	72	2	33	Inyo	66	66	0	Glenn	62	65	3
Sacramento	66	67	1	San Benito	67	69	2	34	Kern	60	66	6	Kings	62	67	5
San Benito	67	69	2	Santa Barbara	69	71	2	35	San Luis Obispo	68	66	-2	Monterey	62	68	6
San Bernardino	63	68	5	Santa Cruz	65	67	2	36	Glenn	62	65	3	Kern	60	66	6
San Diego	68	73	5	Sacramento	66	67	1	37	Humboldt	66	65	-1	Madera	60	68	8
San Francisco	64	68	4	Inyo	66	66	0	38	Riverside	59	65	6	Tehama	60	64	4
San Joaquin	64	69	5	Mendocino	59	59	0	39	Colusa	58	64	6	Tulare	60	67	7
San Luis Obispo	68	66	-2	Ventura	76	76	0	40	Tehama	60	64	4	Mendocino	59	59	0
San Mateo	70	75	5	Humboldt	66	65	-1	41	Yuba	58	62	4	Riverside	59	65	6
Santa Barbara	69	71	2	Placer	68	67	-1	42	El Dorado	66	61	-5	Tuolumne	59	53	-6
Santa Clara	71	75	4	San Luis Obispo	68	66	-2	43	Imperial	51	60	9	Colusa	58	64	6
Santa Cruz	65	67	2	El Dorado	66	61	-5	44	Mariposa	NA	60	NA	Yuba	58	62	4
Shasta	65	69	4	Tuolumne	59	53	-6	45	Mendocino	59	59	0	Imperial	51	60	9
Sierra	NA	50	NA	Nevada	64	55	-9	46	Del Norte	NA	57	NA	Lake	46	50	4
Siskiyou	NA	56	NA	Alpine	NA	54	NA	47	Calaveras	NA	56	NA	Alpine	NA	54	NA
Solano	67	72	5	Amador	NA	66	NA	48	Siskiyou	NA	56	NA	Amador	NA	66	NA
Sonoma	67	71	4	Calaveras	NA	56	NA	49	Nevada	64	55	-9	Calaveras	NA	56	NA
Stanislaus	64	74	10	Del Norte	NA	57	NA	50	Alpine	NA	54	NA	Del Norte	NA	57	NA
Sutter	65	70	5	Lassen	NA	53	NA	51	Modoc	NA	54	NA	Lassen	NA	53	NA
Tehama	60	64	4	Mariposa	NA	60	NA	52	Trinity	NA	54	NA	Mariposa	NA	60	NA
Trinity	NA	54	NA	Modoc	NA	54	NA	53	Lassen	NA	53	NA	Modoc	NA	54	NA
Tulare	60	67	7	Mono	NA	31	NA	54	Tuolumne	59	53	-6	Mono	NA	31	NA
Tuolumne	59	53	-6	Plumas	NA	48	NA	55	Lake	46	50	4	Plumas	NA	48	NA
Ventura	76	76	0	Sierra	NA	50	NA	56	Sierra	NA	50	NA	Sierra	NA	50	NA
Yolo	67	74	7	Siskiyou	NA	56	NA	57	Plumas	NA	48	NA	Siskiyou	NA	56	NA
Yuba	58	62	4	Trinity	NA	54	NA	58	Mono	NA	31	NA	Trinity	NA	54	NA

Counties in bold met their '90 Plus Five mail response rate target.

DATA SOURCE: Census 2000 Final Mail Response Rates for Interim Census Tracts, updated September 19, 2000 on the internet: <http://www.census.gov/>. Census 2000 data include responses received as of September 7, 2000. 1990 Mail Response Rates are from 1990 Data for Census 2000 Planning (the "Planning Database"), US Census Bureau, November 18, 1999.

Table 4: Average Characteristics of Selected Census Tracts

Average Characteristics for Total Population, Rural and Mail Response	Number of Tracts	Average	Percent Rural	Mail	Final Mail	Improvement 1990 to 2000 (percentage points)	
		Number of Persons per Tract		Response Rate 1990 (Percent)	Response Rate 7-2000 (Percent)		
(1) All Tracts*	5,642	5,275	9	NA	NA	NA	
(2) Comparison Tracts	5,384	5,348	7	66	71	5	
(3) Tracts that Maintain or Improve their 1990 Response Rate in 2000	4,536	5,510	6	65	72	7	
(4) Tracts that Meet their '90 Plus Five Target	2,850	5,774	6	61	71	10	
(5) Tracts with a Questionnaire Assistance Center funded by the California Complete Count Committee	458	6,099	6	56	64	8	
Average Race/Ethnic Composition		Percent African American**	Percent American Indian**	Percent Asian or Pacific Islander**	Percent Hispanic	Percent White*	
(1) All Tracts*	5,642	7	1	9	24	59	
(2) Comparison Tracts	5,384	7	1	9	25	58	
(3) Tracts that Maintain or Improve their 1990 Response Rate in 2000	4,536	8	1	10	26	56	
(4) Tracts that Meet their '90 Plus Five Target	2,850	10	1	10	29	51	
(5) Tracts with a Questionnaire Assistance Center funded by the California Complete Count Committee	458	16	1	10	41	32	
Average Characteristics for the Hard-to-Count Score, Renters, Poverty, Linguistic Isolation and the Undercount		Hard-to-Count Score	Percent Renter	Percent Persons Below Poverty Level	Percent Linguistically Isolated Households	Number of Persons Undercounted in 1990	1990 Undercount Rate (Percent)
(1) All Tracts*	5,642	41	43	12	8	148	2.6
(2) Comparison Tracts	5,384	41	44	12	9	152	2.7
(3) Tracts that Maintain or Improve their 1990 Response Rate in 2000	4,536	42	45	13	9	161	2.8
(4) Tracts that Meet their '90 Plus Five Target	2,850	48	49	14	11	190	3.2
(5) Tracts with a Questionnaire Assistance Center funded by the California Complete Count Committee	458	67	60	22	17	263	4.2

NA: Not Available

* Census tracts with zero population in 1990 are excluded. Of the 5,858 tracts in California, 5,642 had at least 1 resident in 1990.

The Planning Database excluded data for some tracts. The total number of tracts analyzed for the following variables is:

HTC (5,597), Rural (5,624), Poverty (5,474), Linguistic Isolation (5,474).

** Not of Hispanic Origin

DATA SOURCE: Census 2000 Final Mail Response Rates were posted at <http://www.census.gov/> on September 19, 2000 and include responses as of September 7, 2000.

Race and ethnicity data are from the 1990 Census of Population and Housing, Public Law 94-171, Summary Tape File 1A.

All other variables are from 1990 Data for Census 2000 Planning (the "Planning Database" File), US Census Bureau, November 18, 1999.

Table 5
Improvement in Mail Response for California Counties and Cities with a High 1990 Net Undercount

	1990 Mail Response Rate (percent)	Final Mail Response Rate 9/7/2000 (percent)	Improvement 1990 to 2000 (percentage point)	1990 Undercount Rate (percent)	1990 Net Undercount	
Counties with a 1990 Net Undercount of more than 20,000 Persons						
1	-- Los Angeles County	64	70	6	3.3	305,772
2	-- San Diego County	68	73	5	2.4	62,536
3	-- Orange County	69	76	7	2.1	50,841
4	-- Alameda County	65	72	7	2.9	38,080
5	-- San Bernardino County	63	68	5	2.6	37,270
6	-- Santa Clara County	71	75	4	2.2	33,824
7	-- Riverside County	59	65	6	2.4	28,763
8	-- Fresno County	63	69	6	3.6	24,692
9	-- Sacramento County	66	67	1	2.3	24,027
10	-- San Francisco County	64	68	4	2.9	21,621
Cities with a 1990 Net Undercount of more than 3,000 Persons						
1	-- Los Angeles city	60	64	4	3.8	138,821
2	-- San Diego city	67	73	6	2.8	32,513
3	-- San Francisco city	64	68	4	2.9	21,621
4	-- Oakland city	57	65	8	4.9	19,316
5	-- San Jose city	69	74	5	2.4	19,077
6	-- Long Beach city	63	69	6	3.7	16,510
7	-- Fresno city	63	68	5	3.4	12,317
8	-- Santa Ana city	61	75	14	3.9	12,076
9	-- Sacramento city	64	55	-9	3.0	11,393
10	-- Stockton city	62	66	4	3.4	7,428
11	-- Inglewood city	53	66	13	6.3	7,386
12	-- Anaheim city	64	75	11	2.7	7,323
13	-- Riverside city	64	72	8	2.6	6,121
14	-- San Bernardino city	59	62	3	3.6	6,088
15	-- Compton city	49	65	16	6.2	6,023
16	-- Pomona city	62	72	10	3.9	5,396
17	-- Oxnard city	69	74	5	3.4	4,956
18	-- Pasadena city	68	73	5	3.5	4,831
19	-- Bakersfield city	62	68	6	2.6	4,582
20	-- El Monte city	61	75	14	4.1	4,581
21	-- Glendale city	70	76	6	2.4	4,472
22	-- Ontario city	61	71	10	3.1	4,290
23	-- Modesto city	65	75	10	2.4	4,122
24	-- Richmond city	59	67	8	4.5	4,104
25	-- Salinas city	69	71	2	3.5	3,946
26	-- Berkeley city	65	70	5	3.7	3,912
27	-- Hawthorne city	55	67	12	5.2	3,901
28	-- South Gate city	69	75	6	4.1	3,671
29	-- Chula Vista city	71	75	4	2.6	3,554
30	-- Lynwood city	59	71	12	5.3	3,469
31	-- Garden Grove city	70	78	8	2.3	3,363
32	-- Oceanside city	66	72	6	2.5	3,313
33	-- Hayward city	64	72	8	2.8	3,221
34	-- Moreno Valley city	60	70	10	2.6	3,143
35	-- Huntington Beach city	70	77	7	1.7	3,119
	California	65	70	5	2.7	837,557

Jurisdictions that met their '90 Plus Five target rate are highlighted in bold.

DATA SOURCE: Census 2000 Final Mail Response Rates for Interim Census Tracts, updated September 19, 2000 on the internet: <http://www.census.gov/>. Census 2000 data include responses received as of September 7, 2000.

1990 Response Rates are from 1990 Data for Census 2000 Planning ("Planning Database"), US Census Bureau, November 18, 1999.

Table 6: Mail Response Rates by 1990 Net Undercount Quartiles

	Number of Comparison Tracts	Number of tracts with a Census 2000 mail response rate that meets its '90 Plus Five Target	Tracts meeting their target as a percentage of comparison tracts	Average level of mail response for tracts in each quartile		Improvement 1990 to 2000 (percentage point)
				1990	2000	
4th quartile (tracts with the highest 1990 undercount)	1,346	991	74%	58%	65%	7
3rd quartile	1,346	795	59%	63%	69%	6
2nd quartile	1,346	635	47%	68%	73%	5
1st quartile (tracts with the lowest 1990 undercount)	1,346	429	32%	74%	76%	2
California	5,384	2,850	53%	65.7%	70.7%	5

DATA SOURCE: Census 2000 Final Mail Response Rates for Interim Census Tracts, updated September 19, 2000 on the internet: <http://www.census.gov/>. Census 2000 data include responses received as of September 7, 2000. 1990 mail response rates and undercount data are from 1990 Data for Census 2000 Planning (the "Planning Database"), US Census Bureau, November 18, 1999.

Table 7

Improvement in Mail Response in the 250 Tracts with the Highest Concentrations of Selected Groups:
1990 Undercount, Race/Ethnic Groups and Rural Population

Consider the 250 comparison census tracts with the largest number of persons in each of the following groups of people:	Tracts with Census 2000 mail response rates that meet their '90 Plus Five Target		Average level of mail response for tracts in each group of 250 tracts		Improvement 1990 to 2000 (percentage point)
	Number of tracts meeting their target out of the top 250 tracts in <u>each group</u>	Number of tracts meeting their target as a percentage of the top 250 tracts in <u>each group</u>	1990	2000	
1990 Net Undercount	211	84%	54%	64%	10
African American	212	85%	53%	62%	9
Hispanic	204	82%	59%	69%	10
Asian or Pacific Islander	165	66%	67%	74%	7
American Indian, Eskimo or Aleut	146	58%	60%	65%	5
White, not of Hispanic Origin	154	62%	67%	73%	6
1990 Rural Population	124	50%	58%	62%	4

DATA SOURCE: Census 2000 Final Mail Response Rates for Interim Census Tracts, updated September 19, 2000 on the internet: <http://www.census.gov/>
 Census 2000 data include responses received as of September 7, 2000.
 Race and ethnicity data are from the 1990 Census of Population and Housing, Public Law 94-171, Summary Tape File 1A.
 All other 1990 data (mail response rates, undercount, and rural) are from 1990 Data for Census 2000 Planning, US Census Bureau November 18, 1999.

Table 8: Mail Response Rates and the 1990 Hard-to-Count Score*

	Hard-To-Count Score (HTC)*	Number of Comparison Tracts	Number of tracts with a 2000 mail response rate meets the '90 Plus Five Target	Tracts that "maintain or improve" as a percentage of comparison tracts	Average level of mail response for comparison tracts in each HTC group		Improvement 1990 to 2000 (percentage point)*
					1990	2000	
California							
hard to count	HTC >= 70	948	680	72%	53%	61%	8
moderately difficult to count	30 <= HTC < 70	2268	1359	60%	63%	69%	6
easier to count	HTC < 30	<u>2168</u> 5384	<u>811</u> 2850	<u>37%</u> 53%	74%	77%	3
Los Angeles County							
hard to count	HTC >= 70	432	341	79%	53%	62%	9
moderately difficult to count	30 <= HTC < 70	684	433	63%	64%	70%	6
easier to count	HTC < 30	<u>515</u> 1631	<u>173</u> 947	<u>34%</u> 58%	75%	78%	3

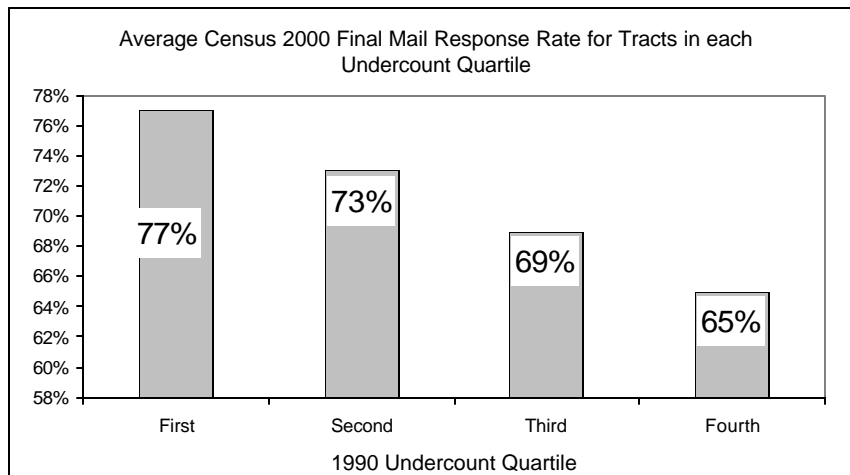
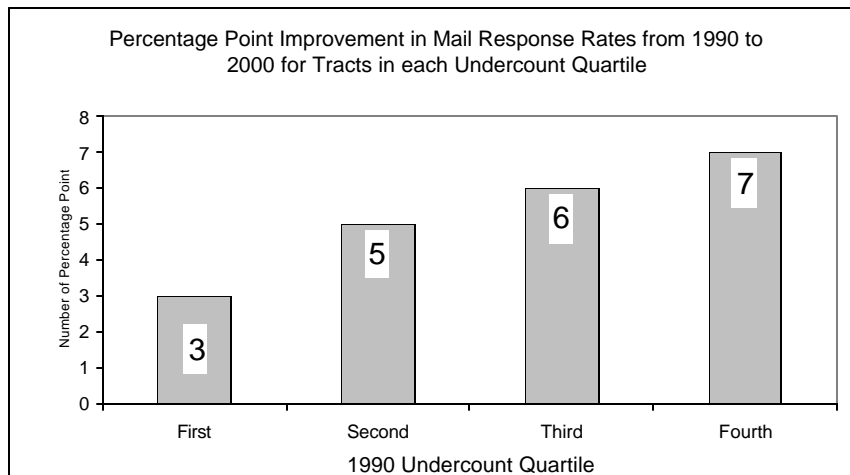
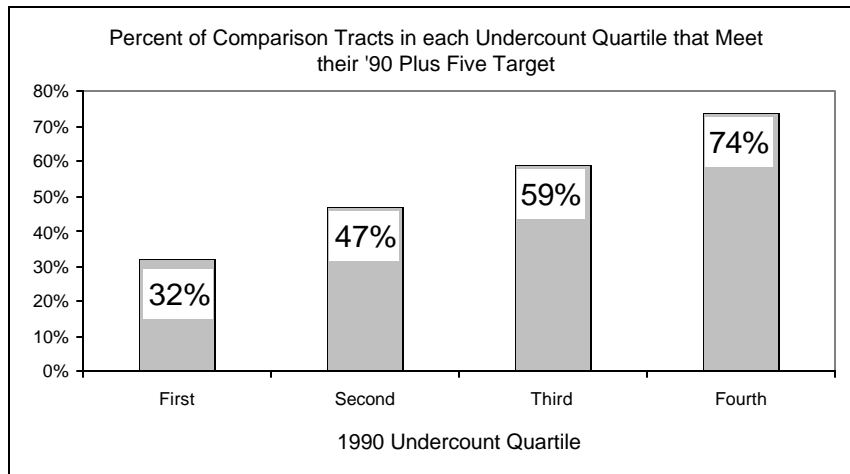
*The Hard-To-Count score (HTC) summarizes attributes of each tract in terms of enumeration difficulty. The HTC is a composite of 12 variables: housing indicators, such as percent renter, multi-units, crowded housing, lack of telephones, vacancy rates, as well as population characteristics such as poverty, high school dropout, unemployment, complex household, mobility, linguistic isolation. The HTC scores ranges from 0 to 132.

DATA SOURCE: Census 2000 Final Mail Response Rates for Interim Census Tracts, updated September 19, 2000 on the internet: <http://www.census.gov/>.

Census 2000 data include responses received as of September 7, 2000.

1990 Mail Response Rates and Hard-to-Count Data are from 1990 Data for Census 2000 Planning (the "Planning Database"), US Census Bureau, November 18, 1999.

Graph 1: Mail Response by 1990 Net Undercount Quartiles



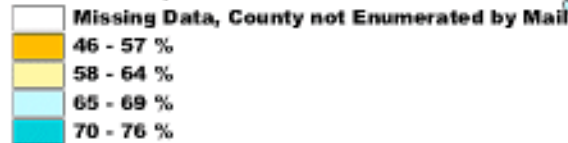
Note: the first undercount quartile is comprised of the 1346 comparison tracts with the lowest undercount in 1990; the fourth undercount quartile has the 1346 tracts with the highest number of persons undercounted.

Data Source: Census 2000 Final Mail Response Rates, updated at <http://www.census.gov/> on September 19, 2000. These data include responses as of September 7, 2000. 1990 mail response and undercount data are from the Planning Database, November 18, 1999. California Department of Finance, Demographic Research Unit, October 1, 2000.

Map 1

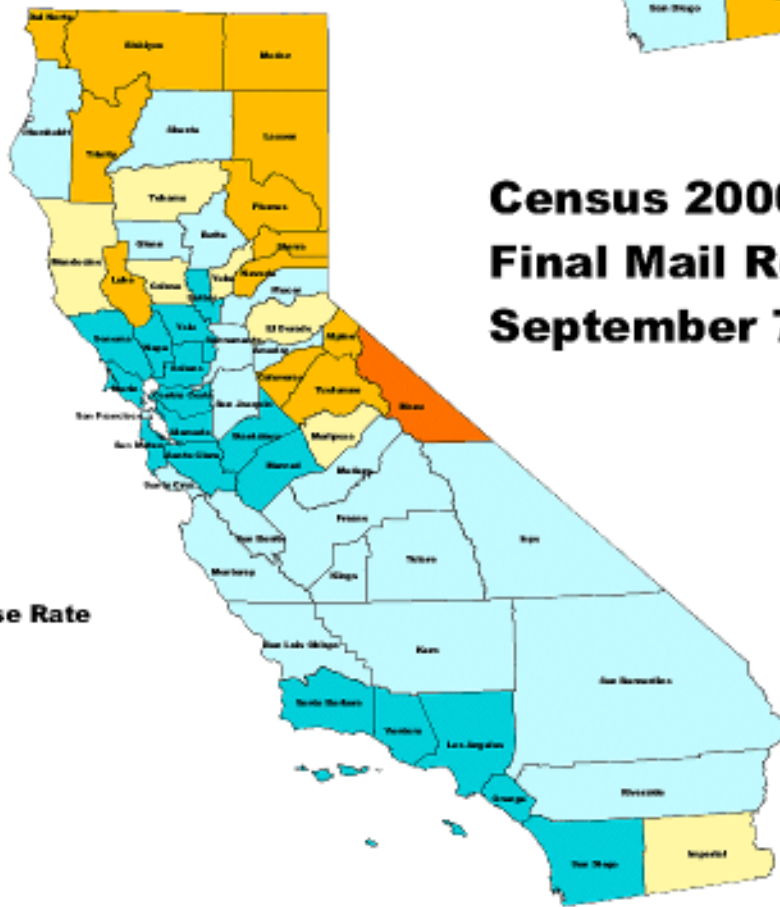
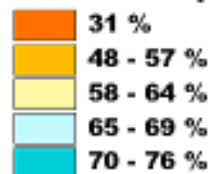
1990 Mail Response Rate California by County

1990 Mail Response Rate



Census 2000 Final Mail Response Rate September 7, 2000

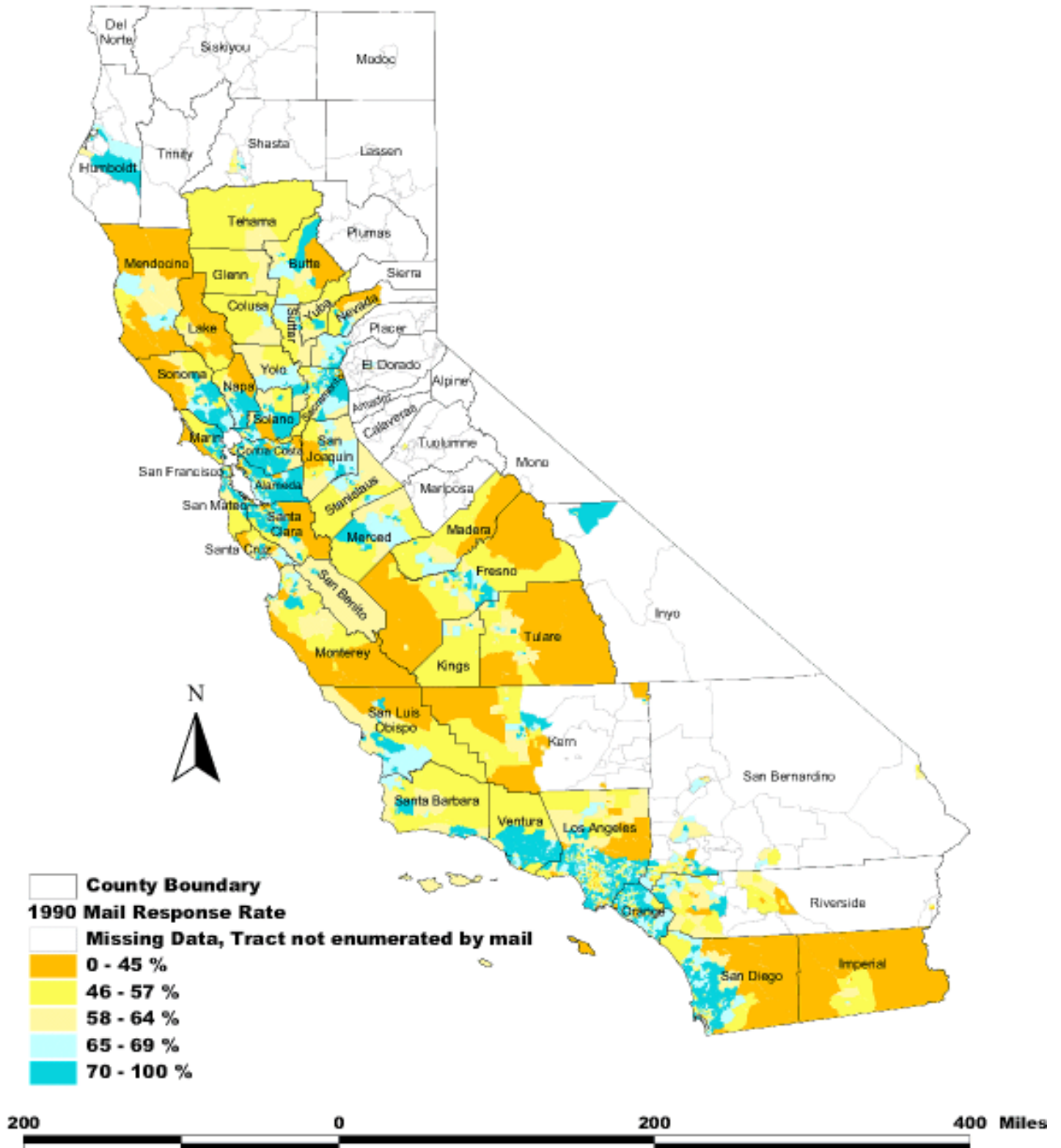
2000 Mail Response Rate



80 0 80 160 240 320 400 Miles

Map 2

1990 Mail Response Rate California by Census Tract

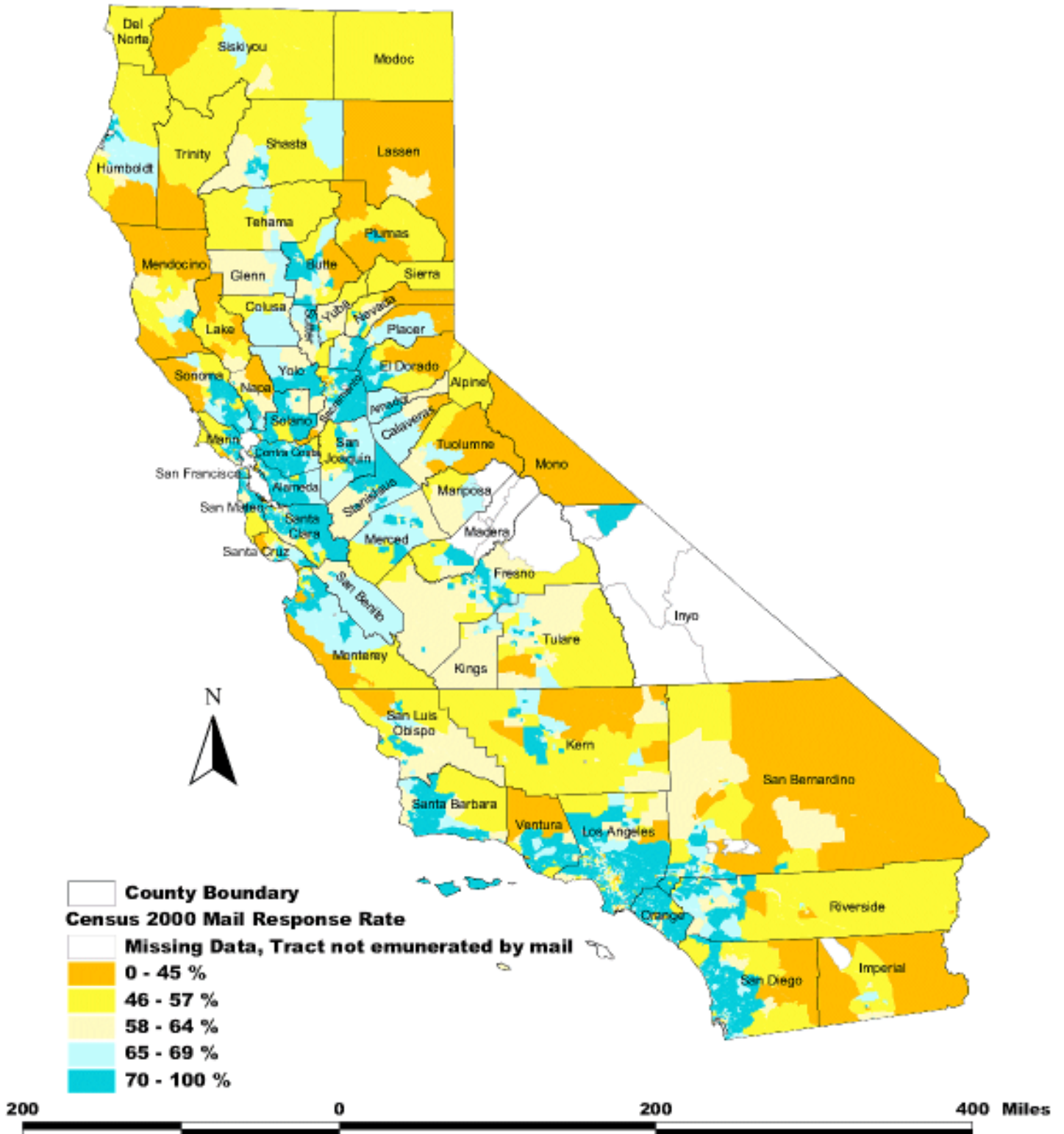


Source: 1990 US Census, Planning Database File, November 18, 1999.

Map prepared by the California DEPARTMENT OF FINANCE, Demographic Research Unit, October 1, 2000.

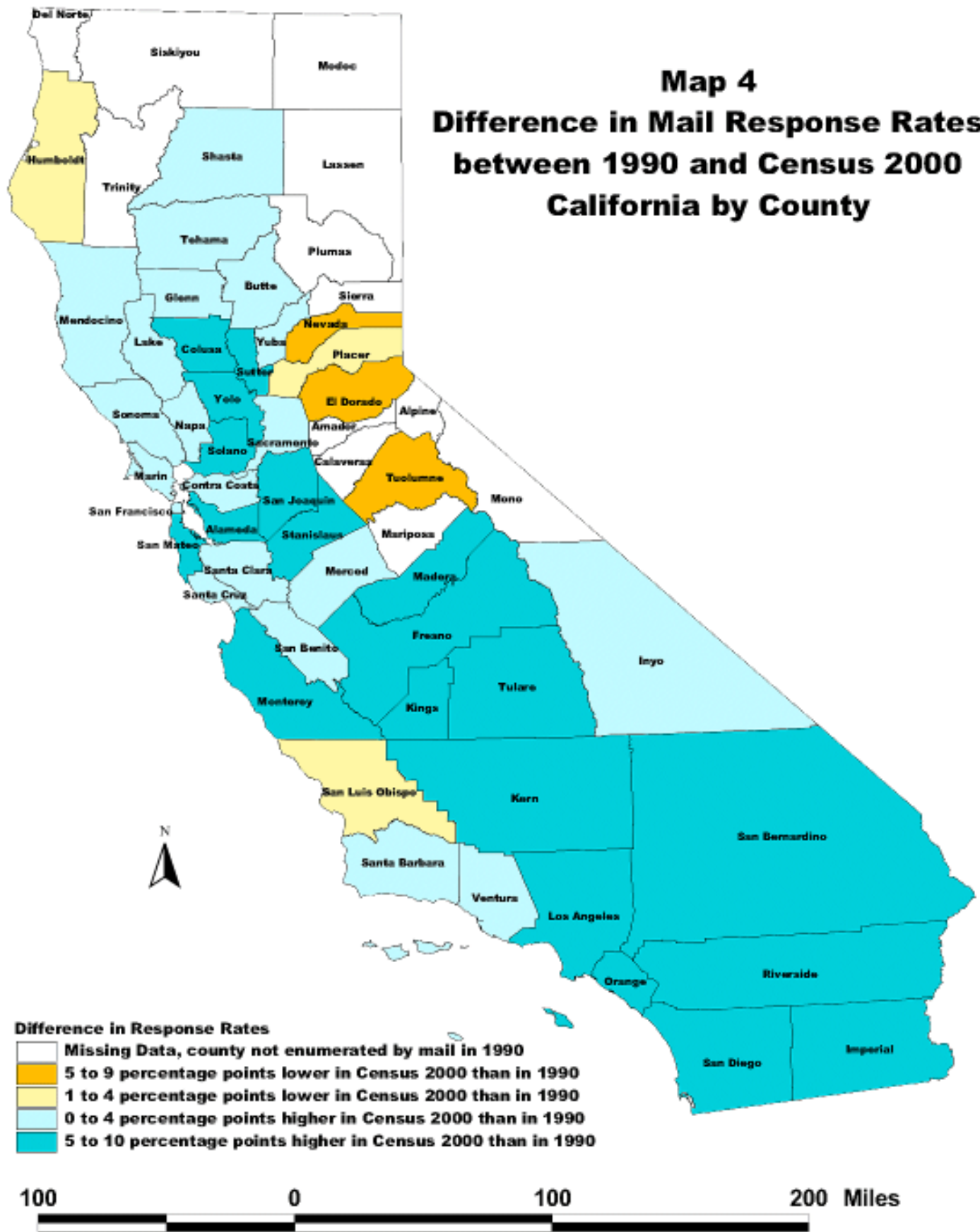
Map 3

Census 2000 Final Mail Response Rate California by Census Tract



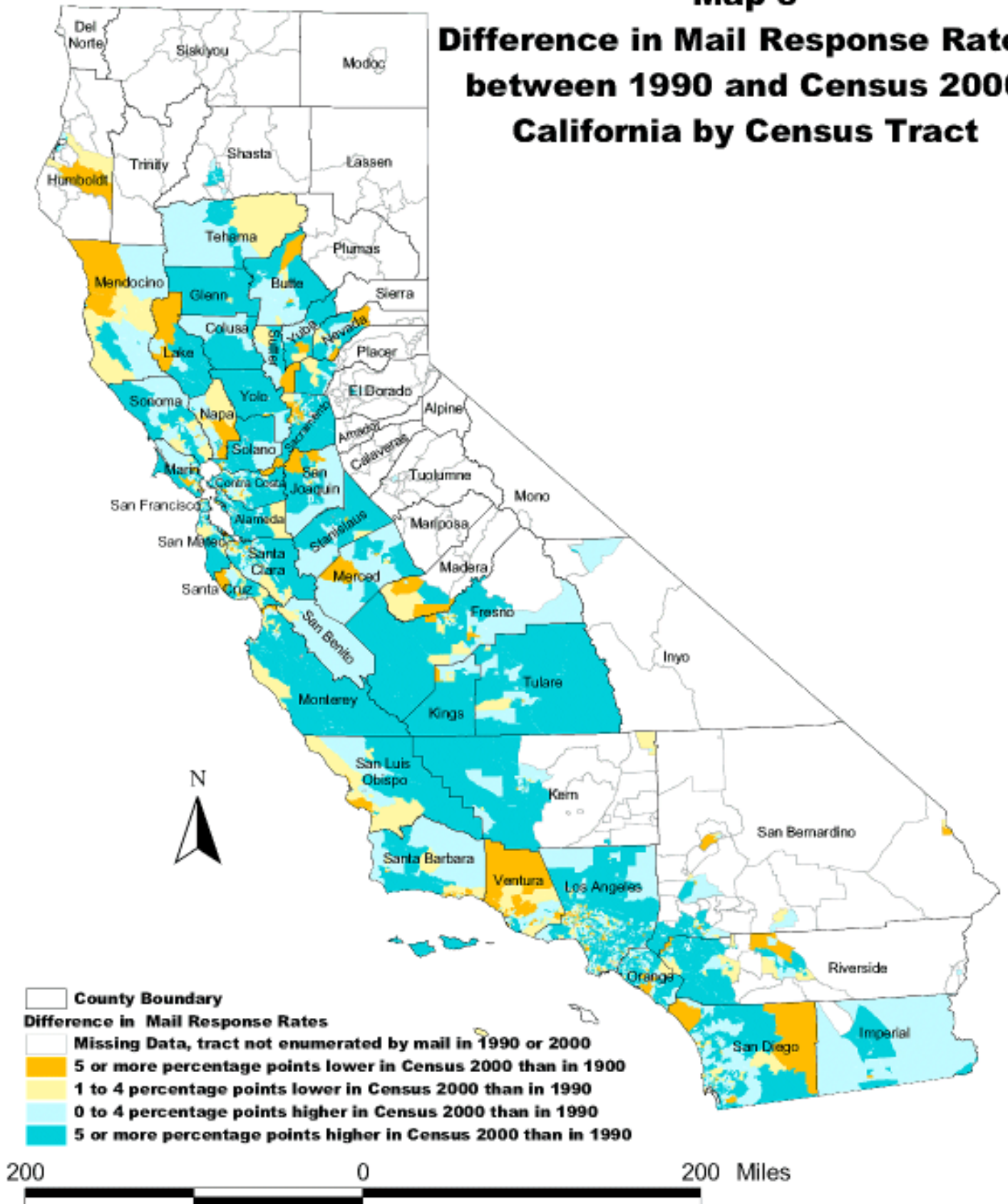
Source: Census 2000 - final response rates for interim census tracts, for responses received as of September 7, 2000. Map prepared by the California DEPARTMENT OF FINANCE, Demographic Research Unit, October 1, 2000.

Map 4
Difference in Mail Response Rates
between 1990 and Census 2000
California by County



Source: 1990 Census; Census 2000 final mail response rates, responses received as of September 7, 2000.
 Map prepared by the California DEPARTMENT OF FINANCE, Demographic Research Unit, October 1, 2000

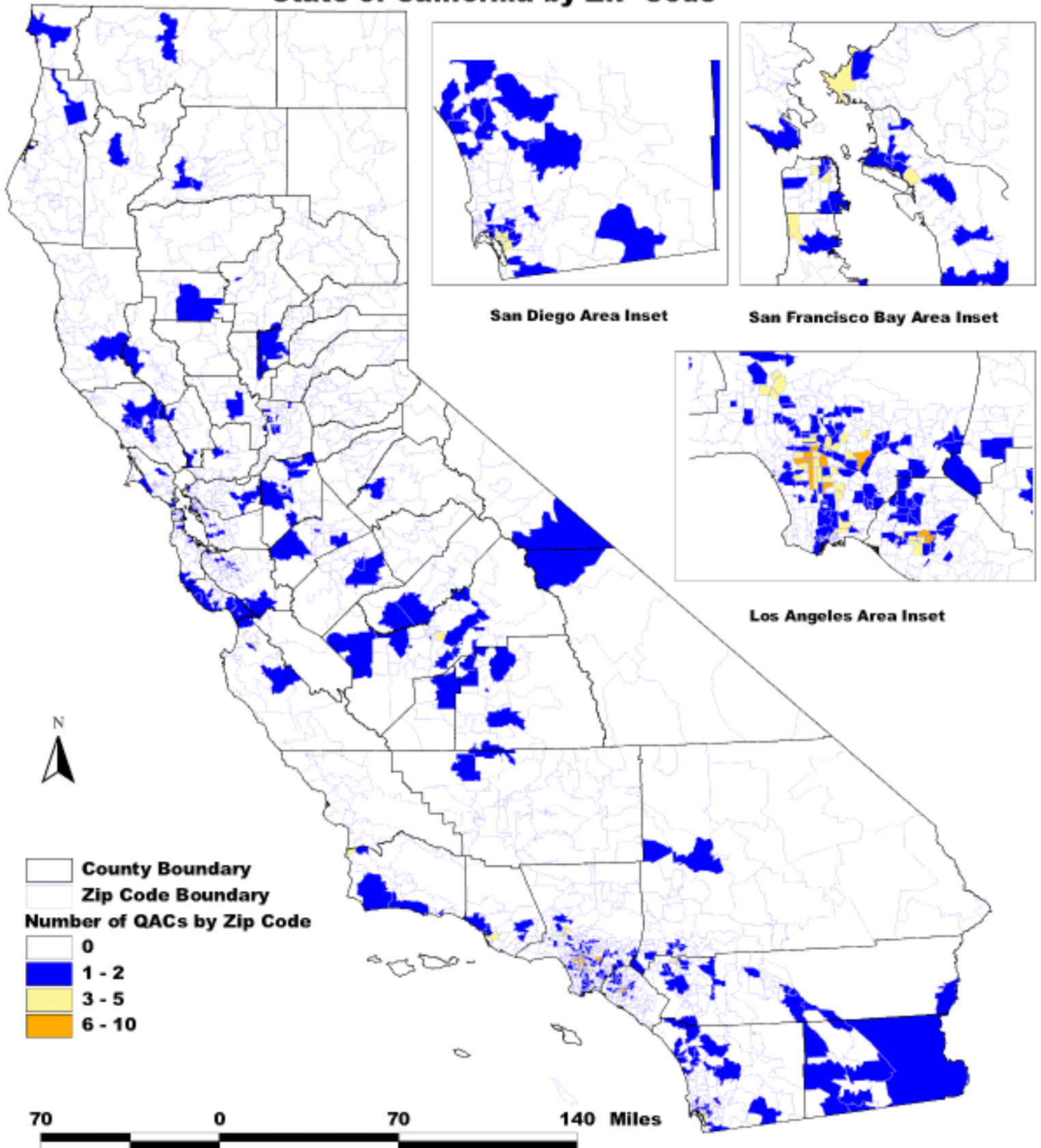
Map 5 Difference in Mail Response Rates between 1990 and Census 2000 California by Census Tract



Source: 1990 Census; Census 2000 final response rates for interim census tracts, responses received as of September 7, 2000. Map prepared by the California DEPARTMENT OF FINANCE, Demographic Research Unit, October 1, 2000.

Map 6

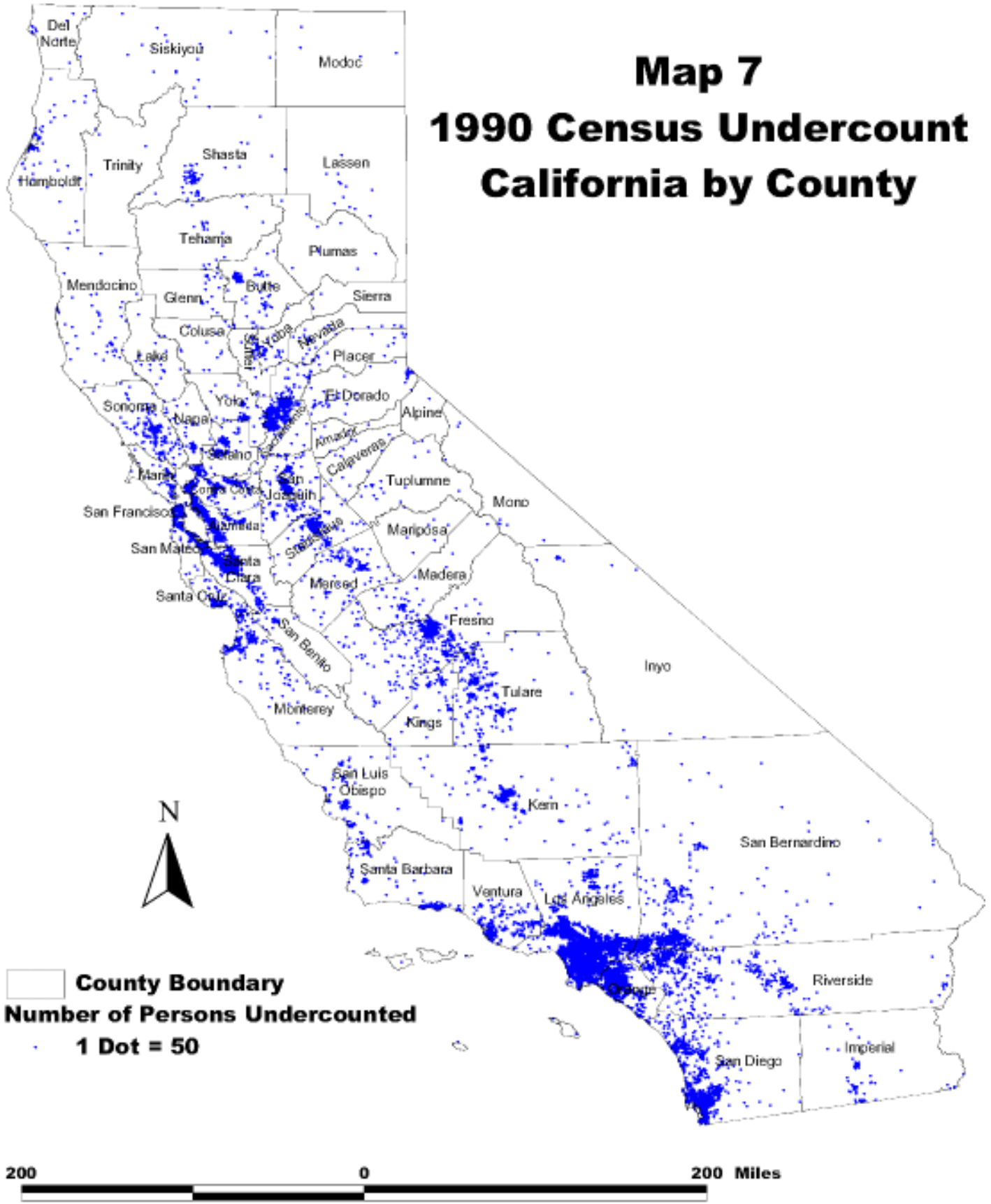
Number of Questionnaire Assistance Centers (QACs) Funded by the California Complete Count Committee* State of California by ZIP Code



* Stationary QACs only; mobile QACs not included.

Source: California DEPARTMENT OF FINANCE, Demographic Research Unit, October 1, 2000.

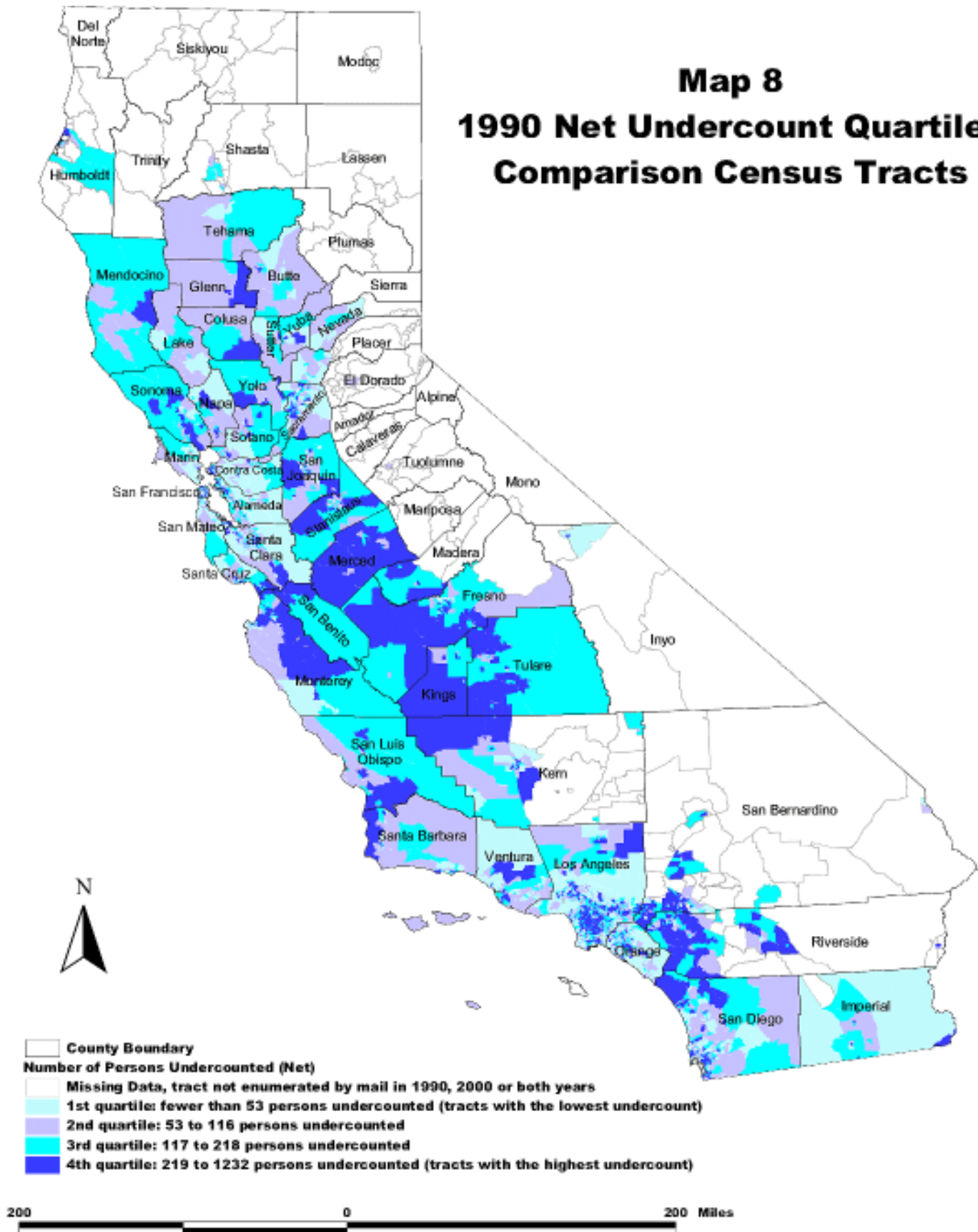
Map 7 1990 Census Undercount California by County



Data Source: 1990 US Census of Population and Housing, Public Law 94-171 Data.

Map prepared by the California DEPARTMENT OF FINANCE, Demographic Research Unit, October 1, 2000.

Map 8 1990 Net Undercount Quartiles Comparison Census Tracts

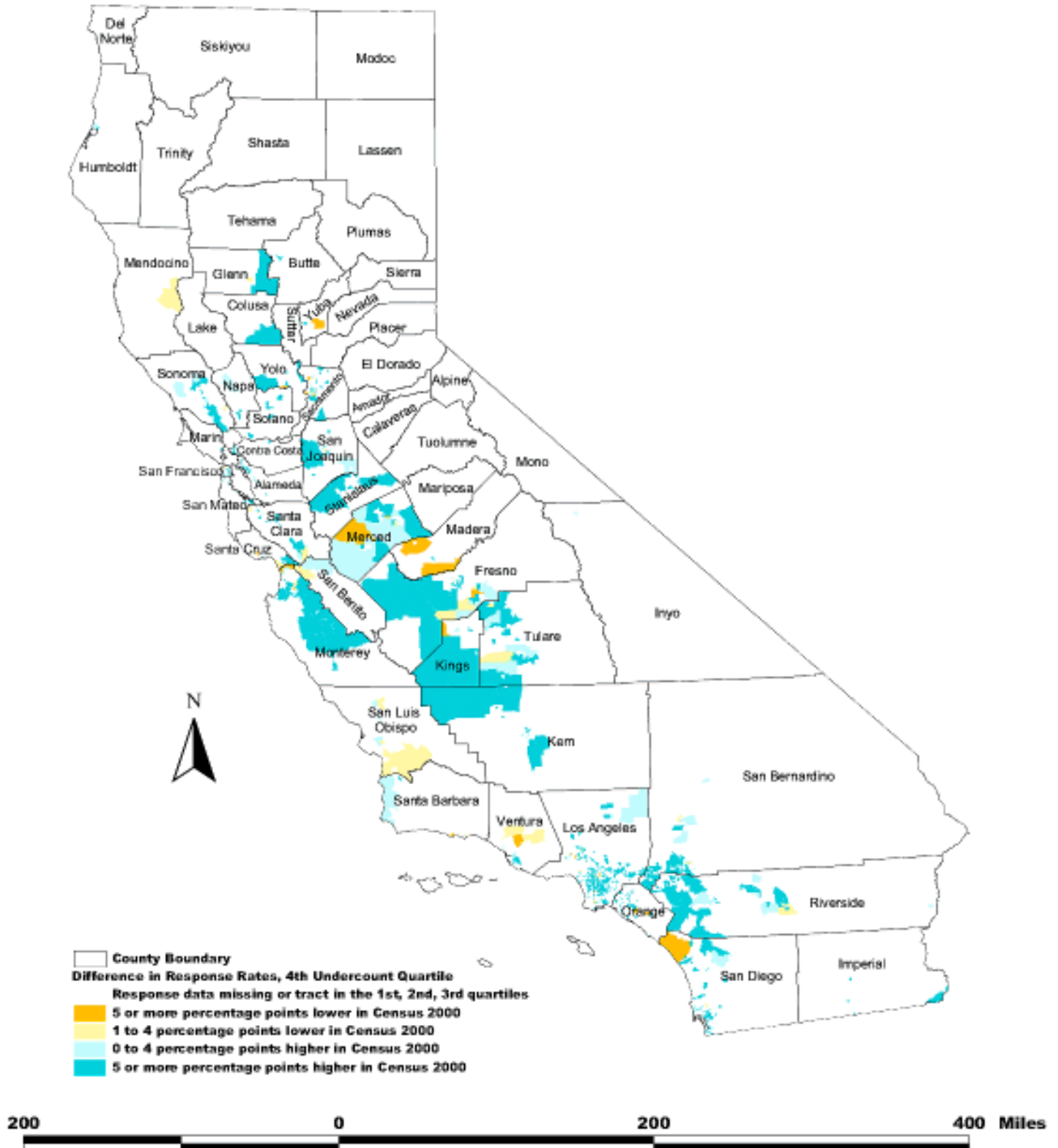


Source: 1990 US Census of Population and Housing, Public Law 94-171 Data.

Map prepared by the California DEPARTMENT OF FINANCE, Demographic Research Unit, October 1, 2000.

Map 9

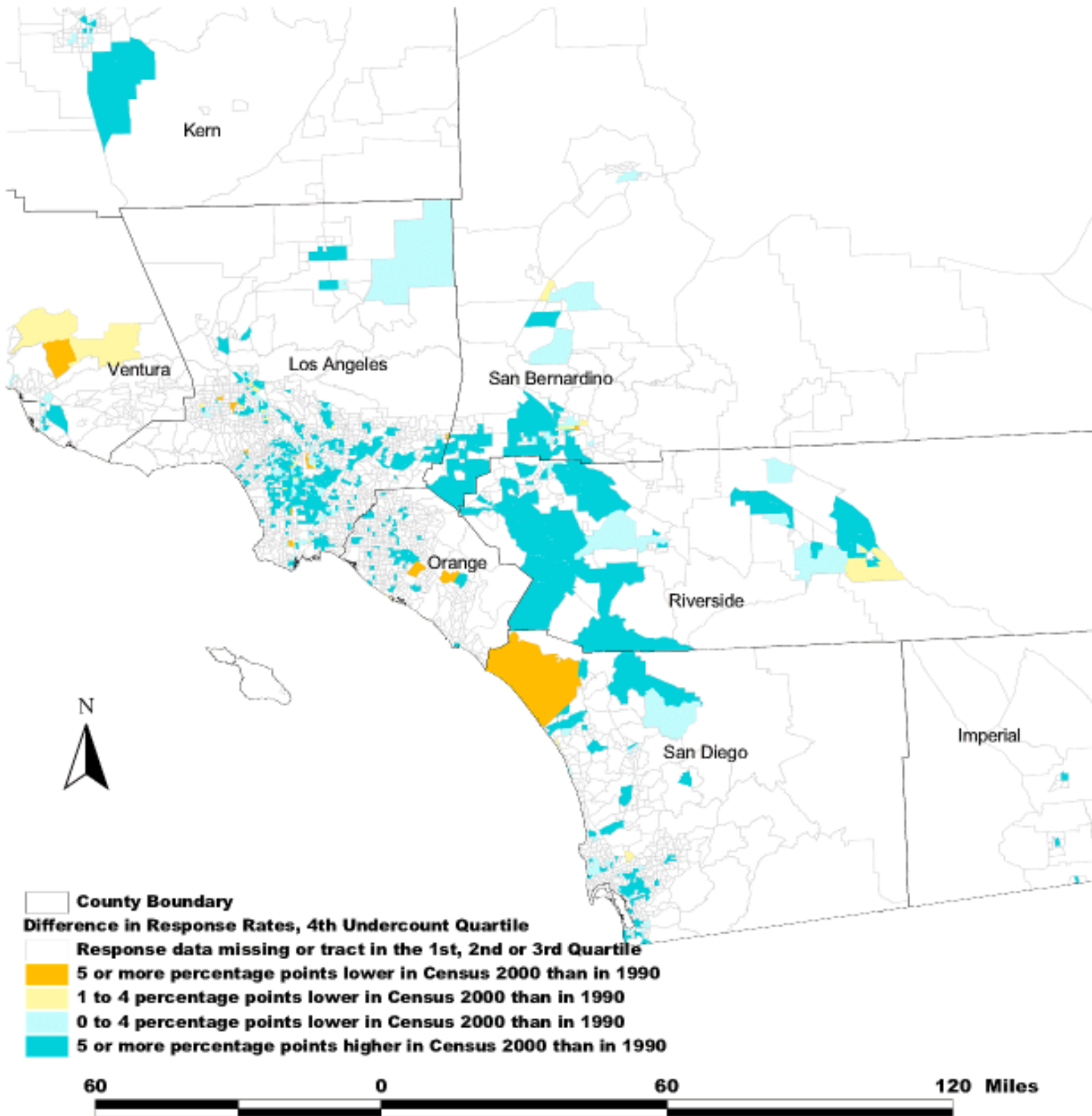
Difference in Mail Response Rates between the 1990 Census and Census 2000 for Tracts with a High Net Undercount in 1990 4th Undercount Quartile for Comparison Census Tracts in California



Source: 1990 Census; Census 2000 final mail response rates for interim census tracts, September 7, 2000.
Map prepared by the California DEPARTMENT OF FINANCE, Demographic Research Unit, October 1, 2000.

Map 10

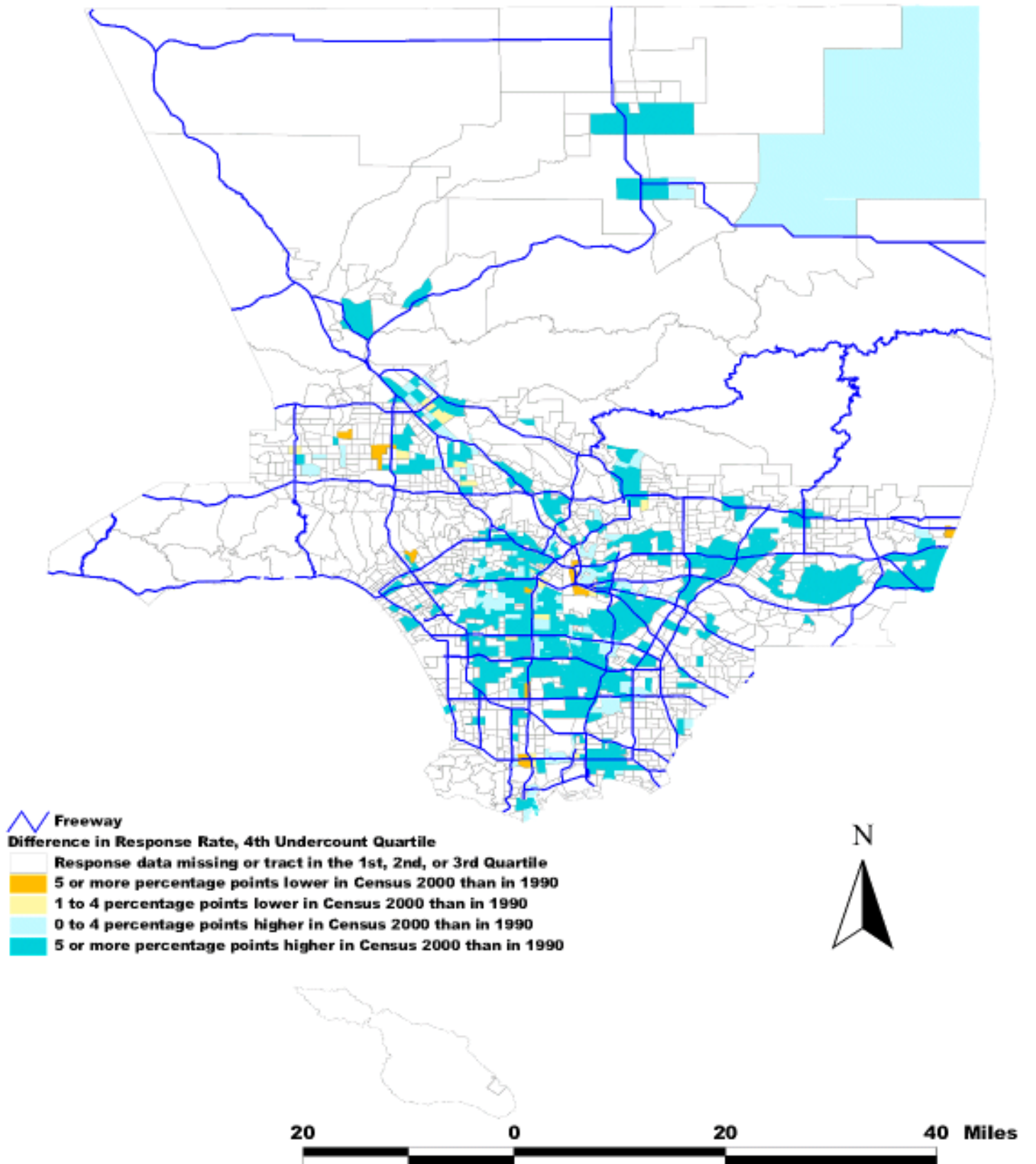
Difference in Mail Response Rates between the 1990 Census and Census 2000 for Tracts with a High Net Undercount in 1990 (4th Undercount Quartile) Selected Southern California Counties by Census Tract



Data Source: 1990 Census; Census 2000 final mail response rates for interim census tracts, September 7, 2000.
Map prepared by the California DEPARTMENT OF FINANCE, Demographic Research Unit, October 1, 2000.

Map 11

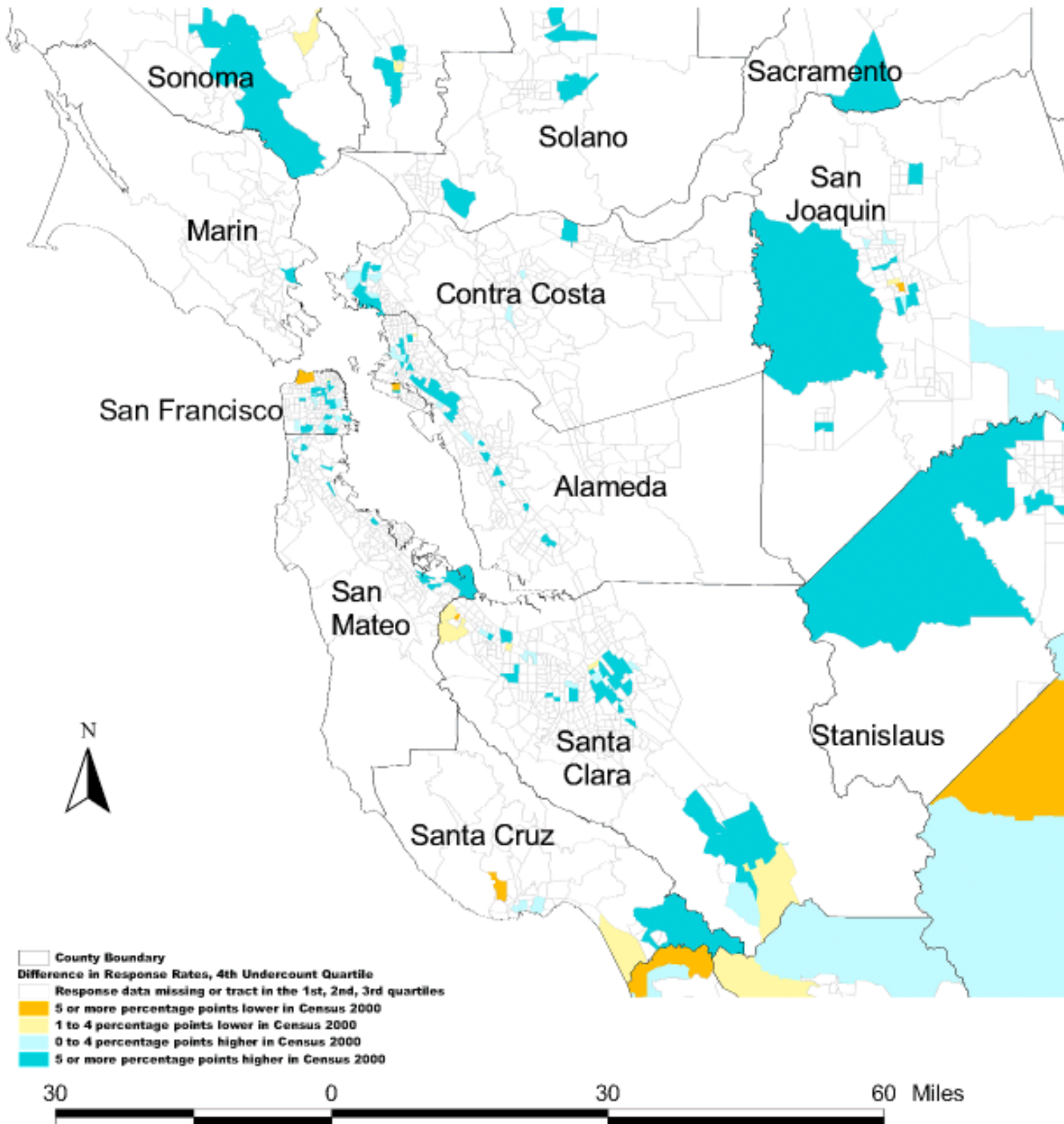
Difference in Mail Response Rates between the 1990 Census and Census 2000 for Tracts with a High Net Undercount in 1990 (4th Undercount Quartile) Los Angeles County by Census Tract



Data Sources: 1990 US Census; Census 2000 final mail response rates for interim census tracts, September 7, 2000 .
Map prepared by the California DEPARTMENT OF FINANCE, Demographic Research Unit, October 1, 2000.

Map 12

Difference in Mail Response Rates between the 1990 Census and Census 2000 for Tracts with a High Net Undercount in 1990 (4th Undercount Quartile) San Francisco Bay Area Counties by Census Tract



Source: 1990 Census; Census 2000 final mail response rates for interim census tracts, September 7, 2000.
Map prepared by the California DEPARTMENT OF FINANCE, Demographic Research Unit, October 1, 2000.