SPATIAL AND RACIAL IMBALANCES IN VOTER REGISTRATION AND JURY SELECTION

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This paper maps spatial and racial imbalances in voter registration, an important factor in jury selection. Jury data came from Los Angeles County Superior Court districts. Contour mapping with statistical analysis indicates that particular neighborhoods need special attention in order to rectify nonrepresentative jury selection procedures as well as imbalances in voter registration.

Geography of jury selection and racial representation. Two criticisms might be directed against social science research on racial representation in juries. First, the random selection process has been overemphasized. Random selection is required at two steps in jury selection procedures: (1) the selection of names for a master file from source lists -- steps 2 and 3 in Figure 1 and (2) the selection of names for jury impanelment lists from qualified juror files -- steps 4 and 5 in Figure 1. A majority of the research has dealt with the random selection of prospective jurors from the community -- step 1 in Figure 1. The results consistently demonstrated that current jury selection procedures result in the systematic underrepresentation of racial minorities.[1]

Second, past studies have neglected judicial districts as a unit of analysis, with the exception of Fukurai (1985).

A number of social behaviors influence a person's chance to become a juror, including residential mobility and racial segregation. Spatial disaggregation by judicial district helps us to understand these effects. This analysis helps understand how the application of justice varies over space.

Data and Methods. This study links 1980 U.S. Census data for Los Angeles to 1979 presidential election registration lists, taking census tracts as the unit of analysis.

Contour maps are the cartographer's technique for displaying and analyzing the spatial distribution of continuous data.[2] This paper maps the spatial variations in a census tract's percent of (1) registered voters and (2) eligible black and Hispanic voters, as well as (3) standardized regression residuals.

Spatial distribution of racial variables. Prior to 1981, a Californian's eligibility for jury service depended on registering to vote. Those who failed to register were systematically excluded from jury selection (see step 2 in Figure 1). Low rates of voter registration for black and Hispanic persons reduced their representation on jury panels. Table 1 shows that census tract voter registration rates correlate 0.731 with the per cent anglo-Caucasian, -0.154 with percent black, and -0.757 with percent Hispanic. This confirms past reports of spatial variation in voter registration (Clark, 1967; Child, 1981).

Maps 1 through 3 illustrate the spatial segregation of voting behavior. Map 1 shows the substantial spatial variation in the percent of eligible residents who are registered voters. In most of the county, at least 40 per cent are registered to vote, but this falls to under 20 per cent in several areas.

Map 2 shows the racial segregation pattern of the county, with strong black concentrations in the central Los Angeles area and in three different clusters to the North of the county.

As Map 3 indicates, the Hispanic population of Los Angeles County is far more dispersed than the black population, including both white and black areas but rather low on the West side and the large Northeast corner of the county.

Glancing at the three maps, one can readily see that the central Los Angeles area has both high proportions black and Hispanic, with low levels of voter registration. On the other hand, the three black clusters to the North of the county have relatively high levels of voter registration. Large Hispanic populations are found in both high and low voting areas. It appears that black and Hispanic areas sometimes have high and sometimes low levels of voter participation. It is quite evident that both minorities are themselves spatially differentiated. This justifies further analysis.

Spatial analysis. We now combine regression analysis and contour maps. First, with the census tract as the unit of analysis, we take the percent of eligible persons registered to vote as the dependent variable. The two independent variables are percent black and percent Hispanic. About half of the variance in voting behavior was explained by these two variables.[3]

Next, we offer a contour map of the standardized residuals from this regression analysis

(Map 4). This produces an inkblot H roughly in the central half of the county where voter registration rates exceed what one would predict on the basis of ethnic groups residing there. The extreme eastern and western parts of the county have significant areas of very low voter participation net of ethnic composition.

Indeed, Map 4 leads us to suspect that persons with a long commute may have disproportionately low rates of voter participation (as well as jury eligibility), even if their ethnicity and socioeconomic status might predict the opposite. Since many commuters must leave early and arrive home late, they may find it difficult to get to the polls on election day, thus reducing their community participation as voters and jurors. Conversely, minority areas outside the low income core but not too far away might have surprisingly high levels of participation. For example, despite similar Hispanic percentages in East Los Angeles and Long Beach, the former has much higher voter registration than the latter net of ethnic variables.

These residual patterns might also reflect socioeconomic variations as well as ethnic consciousness evident in certain communities. For example, Long Beach, East Los Angeles, and Central Los Angeles have many Hispanic politicians and organizations.

In general, these data confirm the problem of racial imbalances in voter registration and jury participation. But they also show that spatial imbalances go beyond ethnicity alone.

NOTES

The authors are co-founders of Scientific Legal Services, Pasadena and Riverside, California.

1. See Robinson 1950; James 1959; Summers 1961; Mills 1962; Finkelstein 1966; U.S. 90th. Congress Senate Report No. 891 1967; U.S. 90th. Congress Senate Report No. 1076 1968; Mills 1969; Erlanger 1970; The Yale Law Journal 1970; Dundas 1972; Kiarys 1972; Iowa Law Review 1973; De Cani 1974; Benokraitis 1975; Chevigny 1975; Alker, Hosticka, and Mitchell 1976; Levine et al. 1976; Kiarys, Kadane, and Lehoczky 1977; Van Dyke 1977; Alker and Barnard 1978; Zeigler 1978; Lipton 1979; American Criminal Law Review 1980; Bowles 1980; Butler 1980a, 1980b; Diamond 1980; Horowitz 1980; Kaye 1980; Turk 1981; Benokraitis and Griffin-Keene 1982; Carp 1982; Fukurai 1985; Fukurai and Butler 1987.

2. Automap II, the program which we used for contoured mapping, interpolates a value for each grid cell of a geographic matrix based upon the distance and direction of single point data input.

3. A 1981 California law mandated the use of both registered voters lists and motor vehicle files from the Department of Motor Vehicles as a source list for selecting potential jurors. However, such changes in the master file did not affect the results. Even after the use of multiple source lists was mandated, underrepresentation of minority prospective jurors, particularly Hispanics, in some Superior Courts in Los Angeles County increased rather than decreased (Fukurai 1985). Other factors also affect racial representation, such as a rule that no one is required to travel more than 20 miles to serve on a jury.

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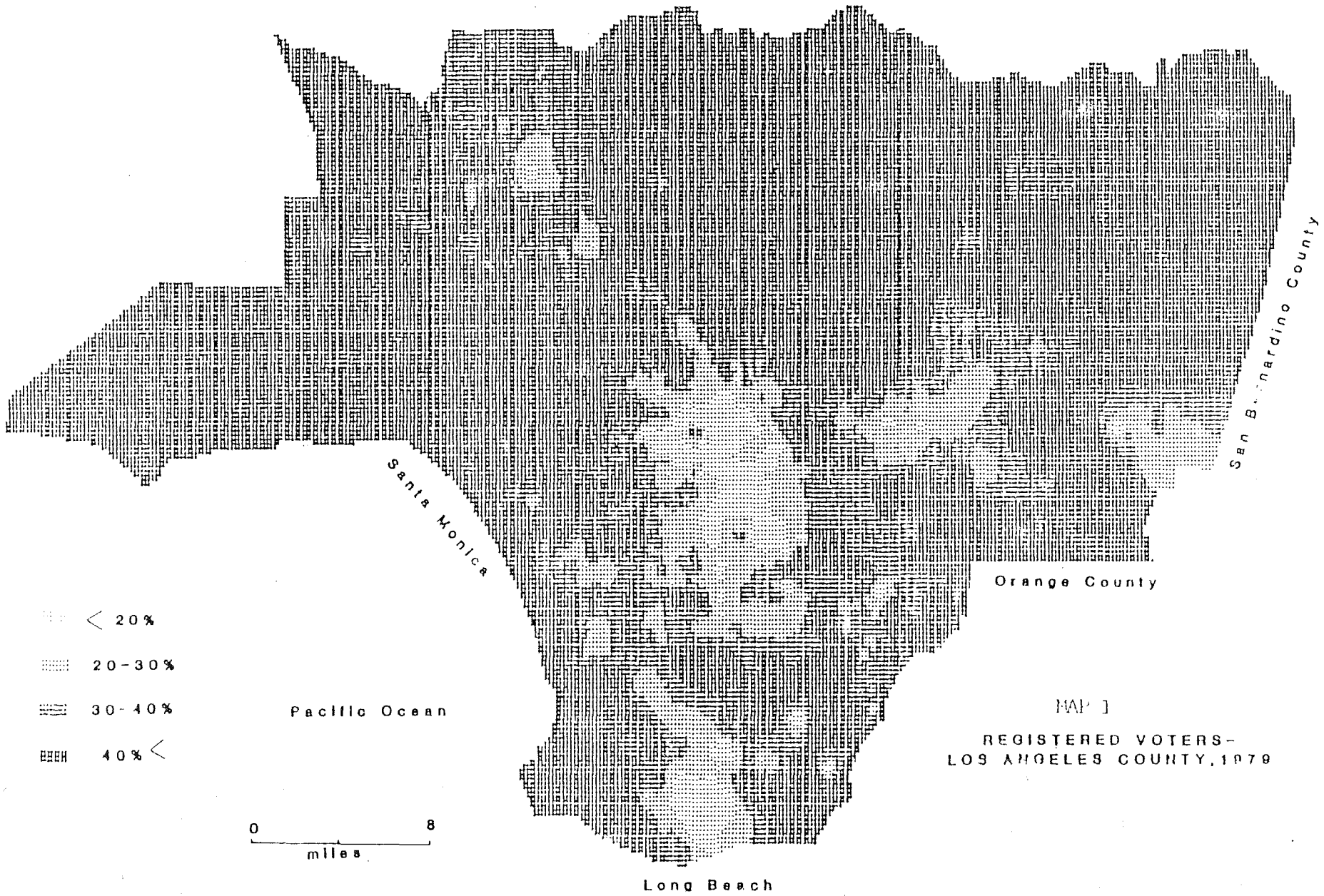
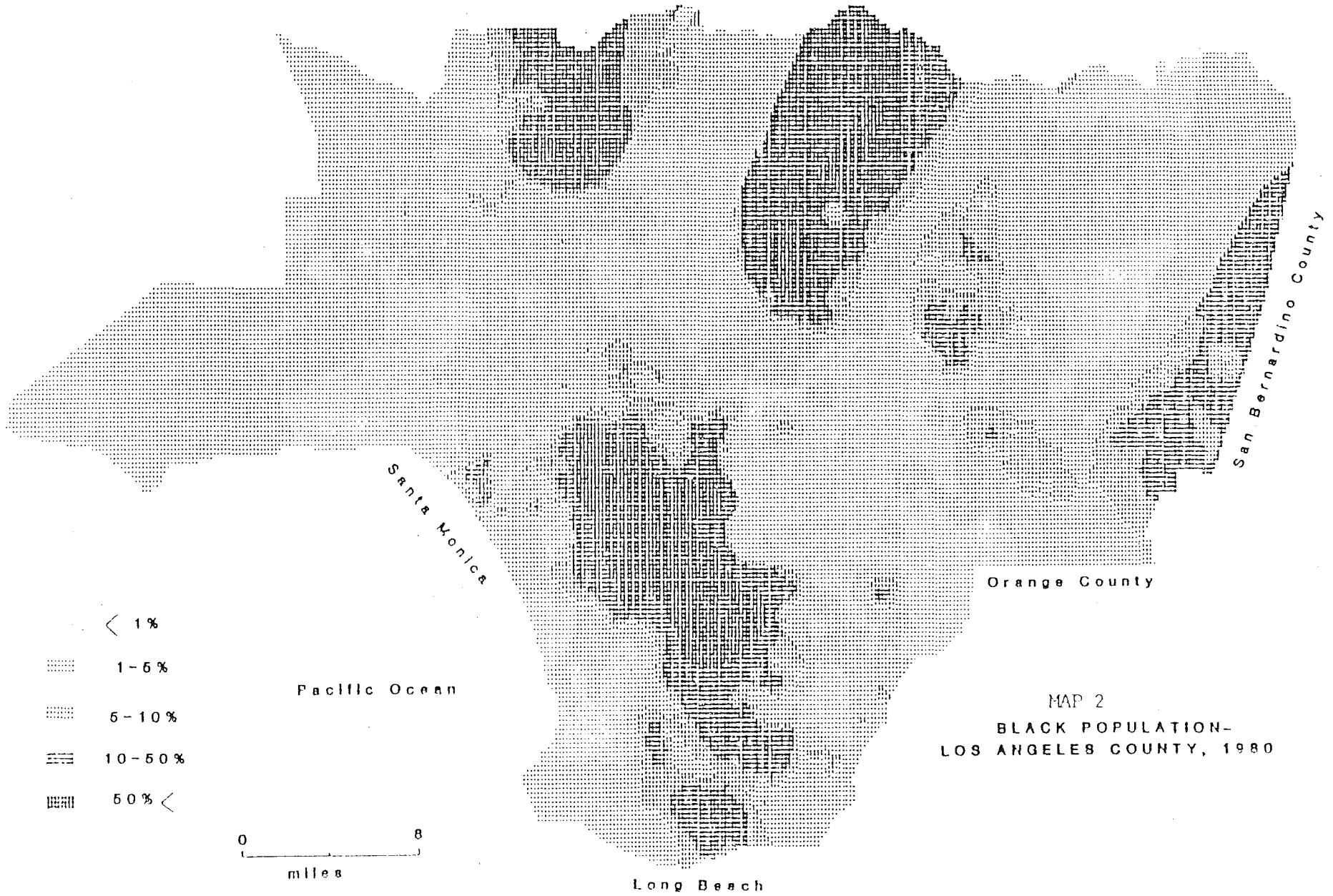
Table 1. Correlation coefficients among registered voters and racial minorities in Los Angeles County, 1980

	RACIAL VARIABLES				
VARIABLES	(2)	(3)	(4)	(5)	(6)
(1) REG. VOTERS	0.731	-0.154	-0.160	-0.308	-0.757
(2) ANGLO		-0.629	-0.129	0.007	-0.629
(3) BLACK			-0.157	-0.187	-0.168
(4) ASIAN				-0.072	0.038
(5) INDIAN					0.190
(6) HISPANIC					

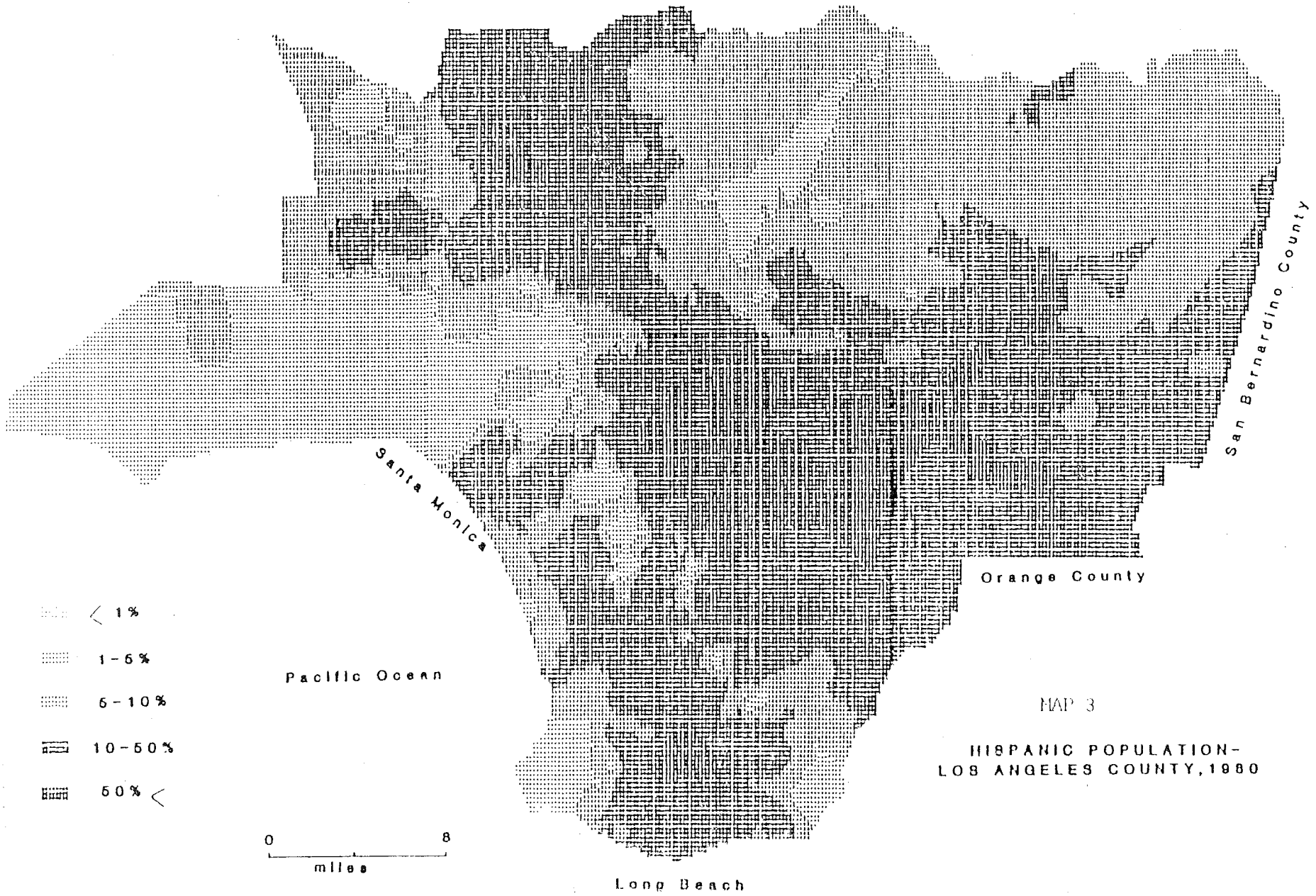


MAP 1

REGISTERED VOTERS-
LOS ANGELES COUNTY, 1978

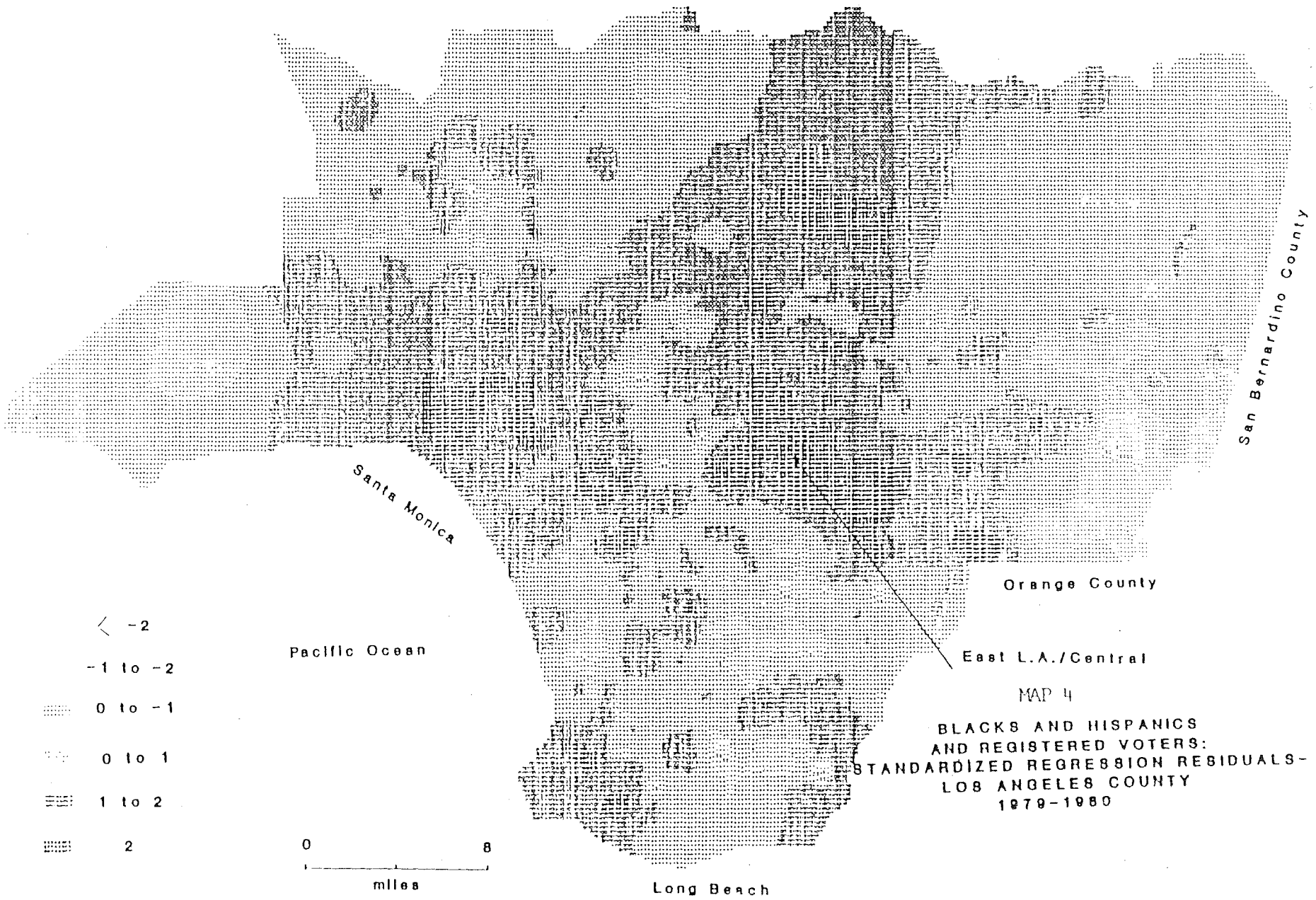


MAP 2
BLACK POPULATION-
LOS ANGELES COUNTY, 1980



MAP 3

HISPANIC POPULATION-
LOS ANGELES COUNTY, 1980



MAP 4

BLACKS AND HISPANICS
AND REGISTERED VOTERS:
STANDARDIZED REGRESSION RESIDUALS-
LOS ANGELES COUNTY
1979-1980