Ensuring racial representation on jury panels: an empirical and simulation analysis

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California law specifically states that persons listed for service in the court:

shall be fairly representative of the population in the area served by the court and shall be selected upon a random basis (Section 9.203).

Introduction

Geographic groupings which overlap with racial and economic groupings constitute recognizable classes. Rural residents, for example, might be underrepresented due to excuses based on distance to the courthouse; often selection officials acquiesce in the reluctance of rural residents to serve. Excuses based on willingness to travel great distances have so reduced the jury pool that remedial action is required even without proof of geographic cohesiveness.

The notion of vicinage or geographical locality requirement of jury selection has been traced at least as far back as to Charlemagne (Charles the Great) in 768 A.D. He instituted several reforms, one of which was the establishment of "Inquisito". One of the requirements of the Inquisito was that 13 to 66 witnesses be chosen from the neighborhood where they would have knowledge of the matter in dispute (Moore

3 See Thiel v. Southern Pacific Co., 328 U.S. 217 (1946), State v. Holstrom, 43 Wis. 465, 168 N.W. 2d 574 (1969), and State v. Cage, 337 So. 2d 1123 (La. 1976). The Federal Act requires that selection procedures "ensure that each county, parish or similar political subdivision within the district or division is substantially proportionally represented in the master jury wheel for that judicial district, division, or combination of divisions" (U.S. 1968, Section 1863 (b) (3)).

1973). The requirement of a jury from the vicinage, found in the Magna Carta as well as the Sixth Amendment, is also based on the notion that jurors should be selected from local residents. The meaning of this requirement is often unclear, as when a case from one division in a federal district court is tried in another division, or when grand jurors are selected from only one division.  

Currently, federal law determines the nature of prospective jurors by specifying two key concepts in jury venire or panel selection procedures: (1) "a random" selection of jurors, and (2) the inclusion of special geographic districts wherein a particular court convenes, i.e., vicinage requirements (U.S. 1968, Section 1861). In California, as in most states, the law similarly requires: (1) a random selection of jurors and (2) selection from "judicial districts of the respective counties" (CA. 1981, Section 197, 206). Recent Federal and California Supreme Court decisions are such that any substantial violation of these basic requirements of jury selection in representativeness is a prima facie case of discrimination.  

Subsequently, an increasing number of challenges concerning the underrepresentation of "cognizable groups," e.g., minorities, have been brought claiming violation of the Sixth Amendment, a representative jury selected from a fair cross section of the community.  

One of the major problems in jury challenges is to establish a prima facie case for the underrepresentation of minorities. Part of the problem is due to the ambiguous relationship between random selection and vicinage requirement (area or district). Past Supreme Court cases have dealt with the systematic underrepresentation of cognizable groups, e.g., blacks and Hispanics; however, the Court has not addressed the extent to which the area served by the court relates to the random selection of potential jurors. Vicinage or geographic representativeness has rather been dealt with, along with the random selection of jurors, without geographic representativeness being clearly demarcated.

In Duren v. Missouri, for example, the U.S. Supreme Court held that a three-prong test must be applied to establish a prima facie case of discrimination: (1) the group alleged to be excluded is a 'distinctive' group in the community, (2) the representation of this group in venires from which jurors are selected is not fair and reasonable in relation to the number of such persons in the community, and (3) this underrepresentation is due to systematic exclusion of the group in the jury-selection process (Duren v. Missouri 439 U.S. 357 364 1978). However, the Court did not spell out a clear cut relationship between juror representativeness and the vicinage requirement, e.g., what is the "community"?

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4 See U.S. 1968, Section 1861 and House Report at 1801.
6 For example in California, see People v. White 43 Cal. 3d 740 1954; People v. King 49 Cal. Rptr. 562 1966; People v. Sirhan 7 Cal. 3d 256 1978; People v. Wheeler 148 Cal. Rptr. 890 1978; People v. Estrada 155 Cal.

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Vicinage Requirement

The vicinage or geographical requirement of jury trials is an essential element of the Sixth Amendment as it pertains to the jury selection process. For illustrative purposes, we will use Los Angeles County and its twenty mile radius rule. However, the process itself is generalizable to all areas of Los Angeles County and any other bounded area such as a county, judicial district, etc.

The first provision for a jury trial in a vicinage can be found in Article III of the Constitution. Article III. Section 2 notes:

The Trial of all Crimes, except in Cases of Impeachment, shall be by Jury; and such Trial shall be held in the State where the said Crimes shall have been committed; but when not committed within any State, the Trial shall be at such Place or Places as the Congress may by Law have directed.

Early in the 1970s, the Los Angeles County Board of Supervisors developed a policy that no juror had to travel more than twenty miles from his/her house to the courthouse. The County Board adopted this rule because of convenience for prospective jurors and economic reasons for the county. Subsequently, in California, the legislature defined the judicial district in Los Angeles County as being within a twenty mile radius from each courthouse. The California Code of Civil Procedure states that:

Each court shall adopt rules supplementary to such rules as may be adopted by the Judicial Council, governing the selection of persons to be listed as available for service as trial jurors. The persons so listed shall be fairly representative of the population in the area served by the court, and shall be selected upon a random basis. Such rules shall govern the duties of the court and its attaches in the production and use of the juror lists. In counties with more than one court location, the rules shall reasonably minimize the the distance traveled by jurors. In addition, in the County of Los Angeles no juror shall be required to serve at a distance greater than 20 miles from his or her residence (CA. 1981, Section 7. 203).

Despite the explicit rule of random selection of potential jurors from the judicial district defined within 20 mile radius, recent jury venire challenge cases have argued the following two points: (1) there is a significant underrepresentation of prospective minority jurors and (2) there is an overrepresentation of particular neighborhoods with high concentrations of anglos (Heyns 1979; Butler 1980a, 1980b, 1981; Butler and Fukurai 1984; Huebner–Dimitrius 1984; Fukurai and Butler 1985; Fukurai and Butler 1986). These studies have shown that census tracts with a high anglo concentration are consistently overrepresented and consequently jury venires have consisted of a large number of potential anglo jurors, and an underrepresentation of minorities. This is apparent for all Superior Court districts in Los Angeles County except the Central District (Heyns 1979).

It is theoretically possible to have race/ethnic representation on juries, yet not have a fair cross section of the community or areas served by the court from which jurors are being drawn to serve on juries (Heyns 1979; Huebner–Dimitrius 1984; Fukurai 1985; Fukurai and Butler 1985). Generally however, racial and geographic representativeness are highly correlated; therefore, it is possible to ensure the cross-section representation of minorities by controlling the random selection of geographic areas. Currently, the overrepresentation of particular neighborhoods contributes to a substantially greater chance of anglos serving on
juries, while a random selection of neighborhoods would ensure the fair representation of minorities as prospective jurors within a district.

In this paper, we present an analytic strategy that will overcome racially disproportionate jury venires. Rather than first focusing on the selection of individual potential jurors, random selection of neighborhoods is examined, i.e., census tracts from which prospective jurors are being drawn to serve on juries. Our analysis demonstrates the extent to which neighborhood representativeness could rectify the disproportionate underrepresentation of minorities currently the case in most jury venires. The main thrust of this paper, thus, is threefold: (1) to propose a geographic sampling strategy to overcome underrepresentativeness of minorities, (2) to illustrate our strategy using simulation techniques, and (3) to show the extent to which geographical randomness can help ensure that racially proportionate jury venires are obtained. By simulating the Los Angeles County selection process, a comparison between the actual jury composition and the simulated jury composition is examined to show the extent to which the proposed geographic sampling strategy is superior to the current selection procedures employed in Los Angeles County and elsewhere.

**Data**

Two data sets were linked to serve as the foundation for the simulation of the jury selection process: (1) 1980 U.S. Census Bureau data and (2) jury impanelment lists for a retrial of the Harris case (36 Cal. 3d 36 201 Cal. Rptr. 782 679 P. 2d 433 1984).

Eight jury impanelment lists were obtained to delineate neighborhoods (census tracts) from which jurors were being drawn to the Long Beach Superior Court and to determine whether or not the panels represented a fair cross section. The impanelment period under investigation, while not ideal, was lengthy enough to determine whether or not jury venires were representative of the community population. These eight panels were typical of panel data available for other time periods, including the first Harris trial 1979.

**Empirical Analysis**

Figure 1 depicts racial composition of the Long Beach judicial district using a variety of definitions of the area served by the court. Map A illustrates the areas served by the Superior Court, as presented in the Harris retrial. (Ed.Note. Figures and maps have collected together at end of article)

This variation in the definitions of the area served by the court shows that there is a potential for either conscious or unconscious manipulation of minority representation on jury panels. Thus the particular "area served by the court" becomes important in jury challenges. That is, if it is to be determined whether or not jurors represent a fair cross section of the community, the area served by the court must be clearly delineated or a valid comparison cannot be made.

Six different areas served by the court emerged during the Harris retrial. The first was Los Angeles County as a whole. In the first Harris

*(cont'd) California, Riverside. In People v. Harris, the motion of respondent for leave to proceed in forma pauperis was granted; however, the Writ of Certiorari by the prosecution to the Federal Supreme Court was denied on Oct. 29, 1984.*
trial the prosecution argued that Los Angeles County-wide data were the proper comparison. The Harris opinion rendered by the California Supreme Court concluded that

The parties, however, presented evidence and argued this case on the assumption that all juries in Los Angeles County must be representative of the entire county. The principal question before us is whether evidence based on total countywide population figures, rather than jury-eligible population, is adequate to make out a prima facie case; for the reasons explained in this opinion, we conclude that it is. The state has not attempted to rebut this prima facie showing by arguing that the Long Beach juries need only represent those persons living within 20 miles of the courthouse, and has not attempted to show that such juries were truly representative of that limited area (Harris 36 Cal. 3d 36. 201 Cal. Rptr. 782 679 P. 2d 433 1984).

A second area served by the court is within a 20-mile region, as delineated by California state law; that is, any juror may be excused from being sent to a particular courthouse that is further than 20 miles from his/her residence. In 1978, the 20-mile region delineated by the Jury Services Division in Los Angeles County was for the most part a 20-mile straight line from the courthouse. However, in 1983 the area served by the court was reduced to a 15-mile direct line, presumably on the basis that the driving distance would be 20 miles. Thus, a third definition of the area serviced by the court was considered.

A fourth area served by the court was empirically delineated. This area was determined by delineating those census tracts from which jurors were summoned for eight panels. A fifth area served by the court could not be determined geographically but is obviously different from the others. This fifth area is a subset of the fourth area which was geographically determined. For each juror summoned, knowledge of their census tracts and address was made available, thus the area served by the court could be empirically determined. All of the potential jurors who showed up at the Long Beach Courthouse came from these impanelments and thus were a subset of the impanelment lists. However, between the impanelment or summons stage and the jury venire stage, there was between a 40-50 percent dropout. Thus, they are similar but not the same. Unfortunately we were unable to delineate areas of residence at this stage.

Finally, during the course of the Harris retrial, the prosecution argued that a sixth area was more important than these other five. This specific area was known as the Long Beach Superior Court District, as defined by the Los Angeles Board of Supervisors. This area is used by the legal system in allocating trials. Thus, if a person commits a crime in this bounded area and it becomes necessary to have a trial, it typically, but not invariably, will be assigned to the Long Beach Courthouse. However, this particular area is not coterminous with any of the other five areas served by the court. Obviously, all the areas are within Los Angeles County, but otherwise they have nothing in common.

Table 1 shows the racial composition of the eligible Hispanic population and impanelment lists using the 15-mile radius definition of the area served by the court. Thus, while 20.9 percent of potential jurors at a 15-mile level were Hispanic, only 10.1 percent of jurors impaneled and summoned to the Long Beach Superior Court were Hispanic. Underrepresentation of Hispanic jurors was inevitable because of the under-selection of Hispanically dominant census tracts. Table 1 thus shows that more than one-half of the potential Hispanic jurors were underrepresented on the impanelment list. Z scores and
chi-square values show that Hispanic jurors are statistically underrepresented on the impanelment list; thus, the Hispanic composition on the impanelment lists is significantly different from the racial composition of the Long Beach judicial district, as defined by the 15-mile radius.

The underrepresentation of both Hispanic and black jurors on the eight panels under investigation was consistent. Table 2 shows the racial composition of minority jurors on both impanelment lists and census tracts from which potential jurors are summoned. Census tracts with a high concentration of anglos are overrepresented whereas minority dominated census tracts are underrepresented.

Table 3 shows the representation of census tracts on eight impanelments. Potential jurors from one census tract were represented thirty-six times, while fifty-one census tracts were represented less than five times. Table 3 also indicates that one-half the potential jurors came from twenty-three census tracts (5.2%) of the total of 439 tracts in the Long Beach judicial district defined by a 15-mile radius.

Table 4 indicates the average representation of census tracts on eight panels. The table shows the extent to which tract representation is related to the racial composition of the census tract. For example, census tracts which were selected less than the average number of times had three and ten percent higher black and Hispanic populations respectively. One-half the overrepresented census tracts had four and fourteen percent less black and Hispanic population, respectively.

Maps 1 to 8 illustrate the census tracts from which actual potential jurors were summoned. These maps show that the census tracts were concentrated in particular regions, i.e., the lower portions which border on Orange County. From previous tables, it should be obvious by now that these census tracts are characterized by a high concentration of anglos. In any case, and for whatever reason, anglo dominant census tracts are clearly overrepresented on the jury impanelment lists.

One dubious explanation is that anglos are more qualified than minority groups for jury duty. However, the proportion of qualified jurors is the same for the impaneled census tracts and the Long Beach Superior Court judicial district as a whole. Table 5 shows the proportion of qualified jurors in the impanelment list and the Long Beach judicial district. While 19.9 percent of jurors in impaneled census tracts are qualified jurors, 19.1 percent of those in the Long Beach judicial district are equally qualified. Thus, the percentage of qualified jurors has no bearing on the underrepresentation of minority jurors. Further, a random method of selecting jurors has not been exercised, i.e., impaneled census tracts are clustered in particular regions characterized by an anglo population. Many minority dominant census tracts are not included in the impanelment list, even though the proportion of qualified jurors is the same in both impaneled and non-impaneled census tracts.

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1 Research indicates the overrepresentation of anglo jurors is necessary since criminality is inherent in some minority groups (Hepburn 1978; Cullen and Link 1980; Turk 1981; Kramer 1982). Thus, minority groups "take[s] a permissive view of crime within its border. As a result, the black community is vulnerable to its own criminal element as well as to the criminal element of the white community" (The Yale Law Journal 1970, p.534). Further, researchers suggest that county clerks responsible for selecting names from master files purposely exercise systematic selection rather than random selection in creating racially disproportionate jury pools (Alker and Barnard 1978; Levine and Schweber-Koven 1976). Because so many different persons use individual discretion to decide who should be excused and who should serve, the possibility of individual prejudice influencing excuses and exemptions is great (Van Dyke 1977, p.391).
Geographic Random Selection

One means by which to rectify the disproportionate representation of census tracts is to implement the random selection of census tracts within a judicial district, but geographically defined. Such random selection should provide a list of census tracts equally distributed within the limited, spatially bounded context, i.e., 15-mile radius, or whatever. Since our analysis shows that qualification of particular racial populations does not have a bearing on the selection of Anglo-dominant census tracts, the random selection of tracts provides a foundation for equally selecting various racial/ethnic groups within them thus resulting in a fair cross-section of the population, vis-a-vis minorities.

A simulated random selection of census tracts was carried out in the following manner. Each census tract within a 20-mile radius of Long Beach judicial district was given a unique number. A series of random numbers were generated for the selected number of census tracts for each of eight panels. Those eight individual simulations were conducted to correspond to the actual eight impanelments as previously empirically analyzed and used in the Harris retrial.

Maps 9 through 16 illustrate the simulated mapping of census tracts randomly selected within the Long Beach judicial district. Each map shows that selected tracts are evenly distributed in space. The number of potential jurors also shows that using this process, minority groups would have an equal chance of selection for jury service.

Table 6 shows the racial composition of selected census tracts for each of the simulated panels. Within the 20-mile radius 26.7 percent of potential jurors were Hispanic and 14.8 percent for black. A Z scores statistical test for differences in racial composition between census tracts derived by random selection and the 20-mile radius district was then carried out. Not one of the scores was significant, suggesting that each of the randomly selected samples of tracts had a racial composition similar to that of the 20-mile radius judicial district. This, of course, is in stark contrast to the actual impanelments analyzed in the first section of this paper.

Map 17 shows the mapping of all census tracts in eight panels using the simulation method. The map shows that random selection of census tracts provides a virtual equally distributed list of tracts from which potential jurors would have been summoned. Such random selection also provides an unbiased racial representation.

Critique

The results of our simulation clearly show that the process we have suggested is far superior to the current process in ensuring a fair cross section of jurors.

One question, of course, is whether or not this process is allowable under current Federal and State statutes. Our response is that not only is it allowable, but the results of the simulation imply that our process should be mandated by law. Another argument that possibly could be made against the proposed process is that qualification varies by district. However, our evaluation of the actual juror qualification rate for Los Angeles County compared with the Long Beach District (20-mile) showed that the qualification rate was virtually identical. Even if there had been some variation, such variation could be fitted into the system.

Another possible objection to the randomized geographical process is that it would increase
the overall mileage driven by jurors. This is true. Any system that results in a fair cross section will result in more aggregate miles driven because of the very fact that the jurors would be from all areas of the district rather than concentrated in certain areas. This is a necessary part of a system that results in a fair cross section of the community — jurors must come from all parts of the community. The proposed system does away with the idea of selecting only jurors from areas closest to the court, and in fact, requires just the opposite. That is, jurors are drawn from all areas of the district. However, the district could still fall within the state law mandated 20-mile region for Los Angeles County.

In Los Angeles County, a particular problem that must also be dealt with is the overlapping of judicial district boundaries. This problem is amenable to statistical sampling methods. However, even if some overrepresentation should occur, it would be substantially less than is now occurring using non-random selection of areas.

Finally, the analysis presented here represents only part of a year and thus might be considered static. A dynamic jury selection process involves selecting jurors periodically. However, jurors also are qualified only periodically. Thus a dynamic system of jury qualification could use the same technique described in the simulation section. That is, the jury qualification process could also be accomplished by the random selection of census tracts, and the mailing out of questionnaires periodically throughout the year.

Conclusions

Our analysis conclusively shows that currently there is a systematic and biased selection method employed in the Long Beach judicial district and elsewhere in Los Angeles County. The racial composition of actual impaneled census tracts indicates that (1) selected census tracts are clustered in regions with high concentrations of anglos and (2) Hispanic and black potential jurors are systematically weeded out in the selection process because of biased impanelment lists. One possible reason for such systematic selection of anglo dominant census tracts might be that anglo jurors in particular census tracts are more qualified than their minority counterparts. However, the proportion of qualified jurors from anglo dominant census tracts was the same as that of the judicial district as a whole.

We suggested an alternative sampling strategy of random selection of census tracts which provides a representative list of tracts from which potential jurors could be summoned. Our simulation analysis showed that selected census tracts could provide a list of potential jurors that would be unbiased, i.e., racially representative. That is, the impanelment lists would have a racial composition similar to the judicial district. Our method of randomly selecting census tracts is clearly superior to the selection method currently employed in Los Angeles County, because the potential jurors coming from the selected tracts are evenly distributed and have an equal chance of being selected. The random selection of census tracts, thus, is congruent with requirements established by both the Federal Jury Selection and Service Act in 1968 and the California Code of Civil Procedure in 1981.6

6 Federal Jury Selection and Service Act was passed in 1968 to guarantee "all litigants in Federal courts entitled to trial by jury shall have the right to grand and petit juries selected..."
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*(cont'd) at random from a fair cross section of the community in the district or division wherein the court convenes* (U.S. 1968, Section 1861).


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People v. King, 49 Cal. Rptr. 562 (1966)
People v. Sirhan, 7 Cal. 3d 258 (1978)
People v. Wheeler, 148 Cal. Rptr. 890 (1978)
People v. White, 43 Cal. 3d 740 (1954)
State v. Holstrom, 43 Wis. 465, 168 N.W. 2d 574 (1969)
Taylor v. Louisiana, 419 U.S. 522 (1975)

Cases Cited

Alexander v. Louisiana. 405 U.S. 625 (1972)


Duren v. Missouri. 439 U.S. 357 (1979)

People v. Estrada. 155 Cal. Rptr. 731 (1979)
Map A

THE AREA SERVED BY THE LONG BEACH SUPERIOR COURT IN THE HARRIS RETRIAL, 1985

LEGEND: AREA \[\square\] JUROR

MAP A
Figure 1

LONG BEACH JUROR PANELS
AND 1980 U.S. CENSUS DATA
FOR DIFFERENT AREAS SERVED)
BY THE COURT;
BLACK AND SPANISH POPULATIONS

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<tr>
<th></th>
<th>IA County</th>
<th>20-Mile Radius</th>
<th>15-Mile Radius</th>
<th>Summons Area</th>
<th>Panels, May 1985</th>
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(Percent)
Table 1

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<th>Variable</th>
<th>Long Beach District 20-Mile Radius</th>
<th>Impanelment Lists</th>
<th>Absolute Disparity</th>
<th>Relative Disparity</th>
<th>t Score</th>
<th>Chi-Square Value</th>
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<td>Non-Hispanic</td>
<td>79.2%</td>
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<td>13.7</td>
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<td>Hispanic</td>
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<td>-10.8</td>
<td>-31.7</td>
<td>-7.3**</td>
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*= 4/24/83 through 6/13/85

**= Significant at <=0.0001 level.
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<th>Panel Date</th>
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* Percentages are calculated on the basis of all included census tracts.
Table 3

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<tr>
<td>34</td>
<td>1</td>
<td>0.93</td>
</tr>
<tr>
<td>36</td>
<td>1</td>
<td>0.93</td>
</tr>
</tbody>
</table>

Median = 6
Mean = 7.5

TABLE 3
REPRESENTATION OF CENSUS TRACTS ON 8 PANELS
LONG BEACH SUPERIOR COURT DISTRICT
APRIL 24, 1983 THROUGH JUNE 12, 1983
Table 4

<table>
<thead>
<tr>
<th>Race</th>
<th>Long Beach* District</th>
<th>Mean 5 Times or More</th>
<th>Mean 7 Times or Less</th>
<th>Median 7 Times or More</th>
<th>Median 5 Times or Less</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>16.4%</td>
<td>4.3%</td>
<td>7.6%</td>
<td>4.5%</td>
<td>5.3%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>10.9</td>
<td>9.2%</td>
<td>14.5%</td>
<td>9.2%</td>
<td>12.9%</td>
</tr>
</tbody>
</table>

* 430 census tracts included.
LONG BEACH: APRIL 24, 1985

Map 1

LEGEND: AREA

\[\text{\textbullet\ \textbullet\ \textbullet\ \textbullet\ \textbullet}\] JUROR

MAP 1

Fall/Winter 1987
LONG BEACH: MAY 1, 1985

LEGEND: AREA \[\square\] JUROR

MAP 2
LONG BEACH: MAY 8, 1985

LEGEND: AREA

STEREO JUROR

MAP 3
LONG BEACH: MAY 15, 1985

LEGEND: AREA  JUROR

MAP 4
LONG BEACH: MAY 22, 1985

LEGEND: AREA

MAP 5
LONG BEACH: MAY 29, 1985

LEGEND: AREA □ XXX JUROR

MAP 6
LONG BEACH: JUNE 5, 1985
Table 5

<table>
<thead>
<tr>
<th>Long Beach Judicial District</th>
<th>No.</th>
<th>Percent</th>
<th>Impanelment Lists</th>
<th>No.</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Jurors</td>
<td>243,274</td>
<td>100%</td>
<td>62,758</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Qualified Jurors</td>
<td>46,436</td>
<td>19.1%</td>
<td>12,459</td>
<td>19.9%</td>
<td></td>
</tr>
</tbody>
</table>

1. Total number of census tracts are 439.
2. Total number of census tracts are 107.

* Source: Los Angeles Jury Supervisor Ray Arce and his computer consultants, 1985
LONG BEACH SUPERIOR COURT DISTRICT

LEGEND: AREA □ JURORS □

PANEL 1

MAP 9
LONG BEACH SUPERIOR COURT DISTRICT

LEGEND: AREA

PEND 2

M AP 10

Fall/Winter 1987
LONG BEACH SUPERIOR COURT DISTRICT

LEGEND: AREA  JURORS

PANEL 3

MAP 11
LONG BEACH SUPERIOR COURT DISTRICT

LEGEND: AREA  □  JURORS

PANEL 4

MAP 12

Fall/Winter 1987
LONG BEACH SUPERIOR COURT DISTRICT

LEGEND: AREA  

JURORS

PANEL 5

MAP 13

Fall/Winter 1987
LONG BEACH SUPERIOR COURT DISTRICT

LEGEND: AREA

JURORS

PANEL 6

MAP 14

Fall/Winter 1987
LONG BEACH SUPERIOR COURT DISTRICT

LEGEND: AREA □ □ □ JURORS

PANEL 7

MAP 15
LONG BEACH SUPERIOR COURT DISTRICT

LEGEND: AREA

XXX JURORS

PANEL 8

MAP 16

Fall/Winter 1987
Table 6

**Table 6**
LONG BEACH: 9 PANELS BY RANDOM SELECTION
APRIL 24, 1985 TO JUNE 12, 1985

<table>
<thead>
<tr>
<th>Panel Date</th>
<th>Hispanic Census Tract</th>
<th>Z Scores</th>
<th>Black Census Tract</th>
<th>Z Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 4-24-85</td>
<td>26.7%</td>
<td>0.0</td>
<td>17.1%</td>
<td>0.6</td>
</tr>
<tr>
<td>2. 5-1-85</td>
<td>23.9</td>
<td>-0.6</td>
<td>12.6</td>
<td>-0.6</td>
</tr>
<tr>
<td>3. 5-8-85</td>
<td>29.8</td>
<td>0.7</td>
<td>13.9</td>
<td>0.3</td>
</tr>
<tr>
<td>4. 5-15-85</td>
<td>24.6</td>
<td>-0.5</td>
<td>13.9</td>
<td>-0.3</td>
</tr>
<tr>
<td>5. 5-22-85</td>
<td>24.7</td>
<td>-0.5</td>
<td>11.3</td>
<td>-1.0</td>
</tr>
<tr>
<td>6. 5-29-85</td>
<td>30.2</td>
<td>0.8</td>
<td>8.7</td>
<td>-1.7</td>
</tr>
<tr>
<td>7. 6-5-85</td>
<td>25.8</td>
<td>-0.2</td>
<td>13.8</td>
<td>-0.4</td>
</tr>
<tr>
<td>8. 6-12-85</td>
<td>25.9</td>
<td>-0.2</td>
<td>12.0</td>
<td>-0.7</td>
</tr>
<tr>
<td>TOTAL</td>
<td>27.4</td>
<td>0.4</td>
<td>11.7</td>
<td>-0.9</td>
</tr>
</tbody>
</table>
LONG BEACH DISTRICT: 8 PANELS

LEGEND: AREA  □  JURORS

MAP 17