

RACIAL REPRESENTATIVENESS OF JURIES: AN ANALYSIS OF SOURCE LIST AND ADMINISTRATIVE EFFECTS ON THE JURY POOL*

RONALD RANDALL, JAMES A. WOODS, AND ROBERT G. MARTIN

Responding to the concerns of the Lucas County, Ohio, Court of Common Pleas (Toledo) that juries underrepresent African-Americans, we evaluate the racial and Hispanic representativeness of the list of registered voters, licensed drivers, and various lists derived from the original source list, which leads to the list of potential jurors. The list of registered voters is more representative for African-Americans but less representative for Hispanics than the list of licensed drivers in Lucas County. The major loss in racial representativeness appears in the lists derived from the source list. Administrative improvements would produce the greatest increase in racial and Hispanic representativeness in jury lists.

The degree to which venires reflect the racial and ethnic composition of their communities is an important aspect of the Sixth Amendment right to a trial “by an impartial jury.” Despite progress in bringing diversity to juries in America, there is persuasive evidence that “racial and ethnic minorities are consistently underrepresented in the vast majority of both federal and state courts” (Fukurai, Butler, and Krooth, 1993:3). Analyzing racial and ethnic representativeness of juries is complicated because racial and ethnic imbalance can be the result of two separate sets of factors: 1) the racial and ethnic composition of the initial source list and 2) selection procedures that produce the various jury lists, which are derived from the original source list to arrive at the venire. Although there is a long-standing record of both court and scholarly interest in the representativeness of juries, analysis of that representativeness that is not blatant discrimination has been problematic because of a paucity of racial and ethnic information on the source list and the several subsequent jury lists needed to arrive at the venire. To reduce repetition in this article, we use the term “jury lists” to refer to the potential jurors, those potential jurors who are summoned, those who answer summonses (and those who serve or are excused), the summonses undelivered, and those who presumably received summonses but did not serve and provided no reason (see Table 1).

Much legal and academic attention in recent years has focused on a racially representative source list as critical to the notion of an impartial trial. Even the most

* This study was conducted with funding from a technical assistance grant from the State Justice Institute, through the Lucas County Court of Common Pleas. Additional funding came from the Ohio Supreme Court. The points of view expressed are those of the authors and do not represent the official position or policies of the State Justice Institute, the Ohio Supreme Court, the Lucas County Court of Common Pleas, or the Administrative Office of the U.S. Courts.

rigorously nondiscriminatory procedures will not correct serious deficiencies in the source list. Fukurai and colleagues put it this way: “If the initial pool is biased or skewed, the legal principle on which jury trials are to be based is violated at the outset” (Fukurai, Butler, and Krooth, 1993:166).

The list of registered voters is losing its place as the preferred source list. For some time, there has been a concern that “jurisdictions that rely primarily upon voter registration lists to develop source lists effectively exclude a significant number of minorities even before the selection process begins” (Domitrovich, 1994:42). This explains a growing interest in the list of licensed drivers as a source list. Currently, thirty states specify which list or lists to use, and fifteen states allow courts to supplement the required list with other permissible lists. For the states that mandate which list or lists to use, thirty-eight require the voter-registration list and thirty-five require the licensed-driver list. A combined voter/driver list is required in nineteen states, and three or more lists are mandated in eleven states (Mize, Hannaford-Agor, and Waters, 2007:13). It is difficult to know precisely how many jurisdictions in the United States use drivers’ lists or registered voters’ lists exclusively because of the discretion left to local jurisdictions in many states (Rottman et al., 2000:Table 39).

Most studies deal either with source lists or with one or more of the jury lists. This article examines racial and Hispanic representativeness in both the source list and in the various jury lists simultaneously. This allows us to isolate and compare the degree of bias in the source list with the bias introduced in the various stages of the jury-selection process. Efforts to improve racial representativeness can be better directed to the larger sources of racial bias. For example, even if one source list is shown to be more racially and ethnically representative than another, it may be that most of the bias of a jury venire is introduced in one or more of the jury lists produced at the different stages in the jury-selection process. Thus, it would make little sense to switch source lists if most of the racial and Hispanic bias is introduced administratively in moving through the various jury-selection stages.

We focus on racial representativeness of source lists, but the proportion of the adult population covered by a source list is also important in jury discussions. Drivers’ lists may provide greater coverage of the adult population than the voters’ lists (Munsterman, 1996), but may be losing this advantage following the National Voter Registration Act (Motor Voter Act) of 1993. However, that legislation appears not to have improved the racial and ethnic representativeness of the voters’ lists in the forty-three states subject to it (Wolfinger and Hoffman, 2001).

The article has two principal parts. The first is an analysis of problems in the use of certain methods to obtain representativeness. That discussion is necessary as a basis for the second part of the article—the specific study of the racial and Hispanic representativeness in the jury-selection process in Lucas County (Toledo), Ohio. The county uses the list of registered voters as the source list for juries, where, at the time of the study, the jurors served a term of two days or one trial and were paid \$5.00 for one-half day, or \$10.00 for more than one-half day, and \$10.00 a day thereafter.

Under Ohio law, the county has the option to use the list of licensed drivers or a combination of the two lists. Officials in the county court of common pleas knew that juries did not reflect the racial composition of the voting-age population in the county, and they thought racial representativeness of venires and juries would be enhanced by switching to the list of registered voters as the source list. The research problem reduces to two issues: 1) Would switching the source list from the list of registered voters to the list of licensed drivers improve the racial and Hispanic representativeness of Lucas County juries? and 2) As compared to the series of jury lists that result ultimately in selected jurors, is the source list the major cause of the lack of racial and Hispanic representativeness in Lucas County juries?

Because this is a case study in one county of Ohio, one must be guarded in making generalizations, but the diverse character of the county suggests that it is not *sui generis* but can provide lessons for other jurisdictions. Lucas County, ranked 107th in total population among U.S. counties in 1990, is anchored by Toledo, a quintessential Midwest industrial city, but rural Lucas County is noted for agricultural production. Heavily involved with the auto industry, the city suffered a significant manufacturing loss in the 1980s and 1990s. Once the home of several *Fortune* 500 firms, it has a substantial middle and upper-middle class.

The county had 337,916 voting-age residents in 1990. At that time, compared to the United States as a whole, Lucas County had approximately the same percentage of African-Americans (12.9 percent; 12.1 percent for the U.S.) and a smaller proportion of Hispanics (2.4 percent; 4.6 percent for the U.S.). Reflecting the difficult economic times facing Toledo and the rest of urban Lucas County, the total voting-age population had declined slightly by 2000 to 335,573, which dropped the county's population ranking to 131st among all U.S. counties. The black voting-age population increased to 15.5 percent, and the Hispanic voting-age population increased to 3.6 percent. In 2005, 83.3 percent of the Hispanics in Lucas County were U.S. citizens, a figure well above the 62.4 percent for the nation as a whole (U.S. Census Bureau, 2005). This is important because, in areas with large numbers of Hispanics who are not citizens, there may be interest in adjusting population numbers to jury-eligible Hispanics.

SOURCE LISTS AND JURY LISTS

Court Cases and the Law. The U.S. Constitution, in the Sixth Amendment, refers tersely to the "right to a speedy and public trial, by an impartial jury" in all criminal prosecutions, incorporated to state criminal cases through the Fourteenth Amendment (*Duncan v. Louisiana*, 1968). The meaning of that phrase with regard to race has taken the U.S. Supreme Court over a century to develop, as it adopted the position "that a defendant is denied equal protection of the laws when tried before a jury from which members of his or her race have been excluded by the State's purposeful conduct" and a defendant "does have the right to be tried by a jury whose members are selected by nondiscriminatory criteria" (*Powers v. Ohio*, 1991, at 404).

In 1880 the Court struck down *de jure* discrimination for juries when it found in *Strauder v. West Virginia* (1880) that a state statute, which prohibited blacks from serving on either grand or petit juries, violated the Fourteenth Amendment and the common-law right to a jury of one's peers. The Court ruled against *de facto* jury discrimination in *Norris v. Alabama* (1935), when it held that actions by officials to exclude blacks from serving as grand or petit jurors in criminal prosecutions were a denial of equal protection, contrary to the Fourteenth Amendment.

The Court first turned its attention to the master list, sometimes called the master wheel, in 1953 when it reversed a conviction because the master list was developed from tax returns, with white tickets for whites and yellow tickets for blacks. The court found that this led to a systematic selection of white jurors (*Avery v. Georgia*, 1953). Until the 1960s, in both federal and state courts, different jurisdictions relied on different sources for their master lists, including voting lists, city directories, telephone directories, tax rolls, and membership lists of associations and organizations of all kinds, most of which produced fewer blacks and women than their numbers in the community would warrant. The "prevalent method" for developing the master list until the 1960s was the "key-man" system, whereby a jury commissioner or court clerk would pick people of appropriate character from the community for jury service (Levine, 1992), and this method facilitated exclusion of blacks. Thus, at least in the South, use of voters' lists as a way to improve racial representativeness had to await the effects of the Voting Rights Act of 1965. For example, Mississippi, as the most discriminatory state, saw black-voter-registration rates surge from 7 percent just before the passage of the Act in 1965 to 72 percent in 1971-72 (Bullock and Lamb, 1984:42). Later, in *Castaneda v. Partida* (1977), the Court found discrimination in the key-man system, which, along with most of the other sources, generally gave way to voter lists (Levine, 1992). Currently, there are efforts to use merged lists to enhance representativeness and inclusiveness, that is, the proportion of the age-eligible population that is brought into the jury system.

In 1968 the American Bar Association's Project on Standards for Criminal Justice called for a system in which "the names of those persons who may be called for jury service should be selected at random from sources which will furnish a representative cross-section of the community" (ABA, 1968:46). It intentionally ignored the "details or mechanics of the process," ostensibly on the grounds that "these matters must of necessity vary from jurisdiction to jurisdiction, as dictated by local conditions." The real reason, one suspects, is the lack of "more sophisticated methods of juror selection" (ABA, 1968:47) and, presumably, methods sufficiently sophisticated to determine whether the source list is a representative cross-section of the community. The 1996 version of the ABA's *Trial by Jury Standards* retained the same standard for the source list; still shied away from setting out "the mechanics of the process"; now stressed both representativeness and inclusiveness; and asserted that drivers' lists are "more inclusive" than voter lists (ABA, 1996:144). The latest version calls for a jury source list that is "compiled from two or more regularly maintained source lists of per-

sons residing in the jurisdiction,” with an emphasis on both representativeness and inclusiveness (ABA, 2005:10-11), but again, provides little detail on mechanics.

Consistent with the most recent ABA call to enhance representativeness and inclusiveness, some jurisdictions do supplement their main source list (voters’ lists, drivers’ lists, or both) with “residents (according to state census), utility and telephone customers, newly naturalized citizens, property owners, motor vehicle owners, and state taxpayers, including welfare and unemployment recipients” (Munsterman, Hannaford, and Whitehead, 1997:35). New York State has gone the furthest by combining voters’ lists, drivers’ lists, the lists of income taxpayers and of welfare recipients, and the unemployment-compensation list (Munsterman and Hannaford-Agor, 2003). ***Determining Representativeness of Source Lists.*** We are interested in how one can know whether a source list is racially and ethnically representative of the population. The Lucas County analysis we present later in this article stemmed in part from deficiencies in earlier studies and in methods reported in those studies. We therefore turn our attention to these problems at some length before dealing more specifically with Lucas County.

Scholars who study source lists in their search for ways to produce more racially representative venires have often based their recommendations on less-than-optimal methodologies. They have 1) assumed lack of diversity in a source list; 2) conducted surveys in jurisdictions much larger than the judicial district; and 3) turned to statistically questionable methods.

After assuming, not demonstrating, that a source list lacks diversity, King and Munsterman advocate certain nonrandom procedures as a “method of restoring to venires the racial or ethnic diversity that is sometimes missing from the original source lists” (King and Munsterman, 1996:274). They explain:

By manipulating the number of citizens in each of several multiple smaller lists who are summoned, qualified, or sent questionnaires, a court can ensure that each of several populations is sampled proportionally, and can target for oversampling those populations that continue to yield disproportionately fewer veniremembers.

We think it is premature to introduce nonrandom procedures to correct for source-list bias before establishing the degree of the problem. If the severity of source-list bias warrants manipulation of procedures for selecting jury lists, random procedures should be considered before nonrandom ones.

Surveys have been used to develop racial information on source lists (Logan and Cole, 1983). Because juries are drawn from judicial districts—most commonly at the county level for state courts—the surveys should also be conducted at the judicial-district level. Lists of registered voters and licensed drivers may be more representative of the voting-age population in some counties than in others. In a statewide sample, differences wash out. The problem with the survey approach is that conducting surveys in each judicial district is costly and cumbersome. If interest in race, Hispanic

origin, age, income, or other aspects of representativeness goes beyond the source list to the selection processes leading to the jury lists, then surveys of the jury lists would also be needed. A multiple-survey approach in each judicial jurisdiction would be expensive and excessively cumbersome.

A Los Angeles study provides an example of statistically questionable methods for establishing unrepresentativeness. In that study, the authors, who found that white census tracts were overrepresented, concluded that racially unrepresentative jury pools came about in part because “overrepresentation of white-dominated neighborhoods contributes to a substantially greater chance of whites’ service on juries” (Fukurai, Butler, and Krooth, 1993:166). They based their conclusion not on a statistical analysis of the voter list, but rather from ten jury impanelment lists, involving 1,250 impaneled jurors, from a ten-week period of impanelment. From their analysis, they argued for a system of cluster sampling to enhance racial representativeness. However, the authors failed to distinguish between racial bias that may be in the source list and racial bias that creeps into the selection procedures. In fact, they had no technique for examining the racial composition of the original source list.

Merging Source Lists. Despite the lack of evidence that a single source list is a major contributor to the lack of racial representativeness in venire, merging source lists to achieve greater racial representativeness is a proposal frequently found in the literature (Kairys, Kadane, and Lehoczky, 1977; Munsterman and Munsterman, 1986; Munsterman and Hannaford-Agor, 2003; ABA, 2005). Based on his empirical analysis, Bueker, who found in his examination of federal district courts that supplementing the list of registered voters with the list of licensed drivers only occasionally improves minority representation in the jury-selection process and frequently decreases it, cautions that earlier studies “generally omit empirical proof that a combined source list is more representative” (Bueker, 1997:413-14). However, merging source lists will enhance inclusiveness—the proportion of the age-eligible population covered by the source list.

To merge source lists electronically, a common and unique identifier—typically, the Social Security number—is necessary, but problems arise when the identifier is not recorded or is not recorded accurately. Merging lists requires a procedure for eliminating duplicate names because people whose names appear more than once on a merged list have a better chance of being selected for jury service. Two possible errors from merging different lists have been noted: 1) a “false duplicate,” where a unique individual is removed from the merged list, and 2) an “unrecognized duplicate,” where two names are thought to be different people but are not. For Munsterman and Hannaford-Agor (2003), it is better to err on the side of inclusion and have duplicates than to remove what is a false duplicate, but at some point duplicate names seriously challenge the representativeness of the merged list. Where data allow for some examination, this problem of duplicate names appears to be significant. In Atlantic City County, New Jersey, a merge of drivers and voters produced 180,000 names when only 130,000 should have appeared (Fukurai, Butler, and Krooth, 1993:50).

Matching on multiple fields could potentially lower the number of duplicates in merges. Munsterman and Hannaford-Agor outline a statistical matching procedure used by an outside vendor in Connecticut, which in certain cases match not only on names but also on Social Security numbers and addresses; unfortunately, there are no “evaluative data by which to compare” this method with more-typical matching procedures (Munsterman and Hannaford-Agor, 2003:20). It is not clear how additional fields for matching can correct for incorrectly recorded Social Security numbers if other fields, like addresses, are bad. Indeed, Boatright (1998:79) figures that one-third of those who failed to respond to a summons in his study never received the summons in the first place, due to bad addresses and moves that are not tracked by the Post Office. With errors in recording Social Security numbers and addresses as well as frequent changes of address, the “unrecognized duplicates” error will be difficult to overcome.

Whatever the problems in creating a proper source list, it is important to note that difficulties can arise in the numerous steps between the development of the master list and the selection of a jury. Each stage presents the possibility for a reduction in racial and Hispanic representativeness, a matter difficult to address because of the lack of direct racial data. From the master list, an adequate sample of potential jurors must be drawn for the court period; names must be drawn from the list of potential jurors to whom summonses are sent to meet immediate jury needs, and there are summonses that cannot be delivered and other potential jurors who do not respond to the summons. That state courts face a very significant nonresponse to jury summonses is clear; estimates range from 20 percent to nearly two-thirds (Schwartz, Behrens, and Silverman, 2003:14). Moreover, one study involving a sample of respondents who had received summonses in one hundred jurisdictions found that “African-Americans are slightly more likely not to respond to their summons” (Boatright, 1998:67). Then, requests to be excused from jury service must be addressed. The distribution of excuses from jury duty can introduce bias in the system. Furukai and Butler (1991:67) found that “white and English-speaking jurors are associated with a higher incidence of economic excuses than are minority and non-English-speaking jurors.”

Clearly, selection procedures and administration could be sources of bias in venire. So it would seem appropriate to analyze the significance of a large nonresponse to jury summonses, the undelivered summonses, and the pattern of excuses in comparison with source lists for the lack of racial and Hispanic representativeness on juries before calling for major changes or additions to the source list.

DATA AND METHODOLOGY

We now apply this discussion to Lucas County, Ohio. The data for this study, first conducted before the 2000 census data were available, come from three sources: 1) the list of registered voters as of October 30, 1996, obtained from the Lucas County Data Processing Center; 2) the list of licensed drivers in Lucas County, obtained from the Ohio Bureau of Motor Vehicles in January 1997; and 3) the 1990 census data,

from the U.S. Census Bureau. The gap between the 1990 census data and the lists of registered voters and licensed drivers obtained in 1996 and 1997 proved difficult to remedy. We investigated the possibility of working with both 1990 and 2000 census data to extrapolate results to 1996 or 1997. However, between 1990 and 2000, there were significant changes at the level of census geography that we used (block groups), and definitions and reporting of race also changed significantly. In the end, the extrapolations proved far too difficult. Rerunning the analysis with the 2000 census data would have put us only a year or two closer to the census data, so we decided to continue with the 1990 census data. Facilitating the decision was that overall population change in Lucas County between 1990 and 2000 was relatively minor, making our use of the 1990 census data less troublesome than if Lucas County had major population changes over the 1990s.

Licensed Drivers and Registered Voters. From the basic information on the source list and the jury lists, we performed the statistical analysis (see Table 1). Note that the list of licensed drivers is somewhat more inclusive (265,145, or 78.5 percent of the voting-age population) than the list of registered voters (261,041, or 77.3 percent). As neither list contains racial and ethnic information, we can say nothing about representativeness until we perform our analysis. Unfortunately, we do not have an independent way to assess the currency of the records, and which list—voters' or drivers'—is better maintained and more frequently updated probably varies by state. While “state tax records and unemployment compensation lists, which are updated at least annually, are generally far more accurate than lists of licensed drivers and voter registration lists” (Munsterman and Hannaford-Agor, 2003:6), Ohio law precludes their use as juror source lists.

Jury Lists. To obtain the list of potential jurors, the Lucas County Data Processing Center drew 38,059 names from the list of registered voters by a key-number selection process at the beginning of the 1996 jury year. With key-number selection, a number, i , is selected based on the anticipated number of jurors needed for the year in Lucas County. Then every i th registered voter is picked for this group. As key-number selection is not a random-selection process, with some bias perhaps slipping into the list of potential jurors, subsequent jury lists will inherit any errors introduced into the list of potential jurors.

Methodology. To analyze the racial representativeness of the original source list for juries and the jury lists, we employed a GIS (Geographic Information System) methodology for attaching racial information to a data set.¹ In broad terms, we assigned each voter to his or her block group, imputed the racial and Hispanic proportions for all the voters that live in that block group from the census data for that block group, and then aggregated those numbers for all block groups to the county level. We applied the same methodology to the list of licensed drivers and to various lists derived from the list of registered voters.

¹ Details about “Assigning Race with GIS” may be obtained on request from the authors.

Table 1
Comparison of Adult Population with Licensed Drivers,
Registered Voters, and Jury Lists, by Race and Ethnicity

	Total	White			Black			Hispanic		
		Number	%	Comp Diff	Number	%	Comp Diff	Number	%	Comp Diff (%)
Voting-age population	337,916	286,283	84.7	—	43,433	12.9	—	8,200	2.4	—
Licensed drivers	265,145	227,648	85.9*	1.3%	31,503	11.9*	-7.6%	5,994	2.3*	-6.8%
Registered voters	261,041	223,468	85.6*	1.0%	31,989	12.3*	-4.7%	5,584	2.1*	-11.8%
Potential jurors	38,059	32,710	85.9*	1.4%	4,530	11.9*	-7.4%	819	2.2*	-11.3%
Summoned	19,036	16,383	86.1*	1.6%	2,247	11.8*	-8.2%	406	2.1*	-12.1%
Answered summons	9,450	8,436	89.3*	5.4%	862	9.1*	-29.0%	152	1.6*	-33.7%
Served	3,878	3,435	88.6*	4.6%	366	9.4*	-26.6%	77	2.0*	-18.2%
Excused	5,572	5,000	89.7*	5.9%	497	8.9*	-30.6%	75	1.3*	-44.5%
Undelivered	2,006	1,571	78.3*	-7.6%	352	17.5*	36.5%	83	4.1*	70.5%
Not serve no reason	7,580	6,376	84.1	-0.7%	1,032	13.6	5.9%	172	2.3	-6.5%

* = significant at $p < .05$

Significance levels based on z-scores. For an explanation of z-scores and statistical significance, see Gujarati, 1995: 788-90.

Note on comparative difference: The calculation for the comparative difference between the number of whites in the total population in Lucas County (expected value) and the percentage of whites in the list of licensed drivers (observed value) is: $(85.9 - 84.7) / 84.7 = 1.3$. This means that whites are slightly overrepresented in the list of registered voters, relative to the white population of Lucas County. For blacks, the calculation is: $(11.9 - 12.9) / 12.9 = -7.6$. This indicates an underrepresentation of blacks among registered voters relative to their numbers in the total population of Lucas County.

When percentages for specific entries in Table 1 differ to a statistically significant degree from the actual percentage of white, black, and Hispanics in the voting-age population, we can infer some bias in the original source list, the selection process, or both. However, small-percentage differences can be statistically significant in large data sets. That is, in a large data set, a statistically significant difference may not be substantively significant. In our case, a statistically significant difference does not necessarily demonstrate that the source list is flawed in the legal sense of failing to produce a “fair cross-section” of the community. For example, the list of registered voters underrepresents blacks in a statistically significant way, but the percentage difference between voting-age blacks in the population and voting-age blacks registered to vote is quite small. When only a small number of additional blacks on the list of registered voters would change the difference from statistically significant to statistically insignificant, should we insist that the system be seriously overhauled or replaced? Or should we first seek a way to supplement our interpretation of statistical results?

To help interpret the importance of statistically significant differences in large data sets, we use the concept of “comparative difference,” which is “the relative size of two proportions, where one is taken as the standard for the other” (Logan and Cole, 1983:90). Consider two comparisons where the absolute difference is five percentage points. If the measure on the sample (e.g., proportion of potential jurors in one of the categories) were .05 and on the universe (e.g., proportion of voting-age population for that category) were .10, the comparative difference would be 50 percent. If the measure on the sample were .45 and on the universe .50, then the comparative difference would only be 10 percent. If a difference is statistically significant, the question then shifts to whether it is large enough to vitiate a sense of a “fair cross-section” of the community. This is a normative question that we cannot answer statistically, but the comparative difference can help in the interpretation.

RESULTS

List of Registered Voters and Licensed Drivers. The voting-age population of Lucas County in 1990 was 84.7 percent white, 12.9 percent black, and 2.4 percent Hispanic, and derived race for registered voters was 85.6 percent white, 12.3 percent black, and 2.1 percent Hispanic (see Table 1). More whites and fewer blacks and Hispanics are registered to vote than is suggested by the overall population, a statistically significant difference. The list of registered voters, used in Lucas County as the source list for the jury pool, thus, is not racially and ethnically representative. However, the comparative difference is only 1.0 percent for whites and -4.7 percent for blacks, but it is -11.8 percent for Hispanics.

When we performed the same calculations comparing the total population with the list of licensed drivers, we find, as we did with the registered voters' list, that whites are overrepresented and blacks and Hispanics are underrepresented, again a statistically significant result. Note that the comparative difference is negative and larger for blacks on the list of licensed drivers (-7.6 percent) than in the list of registered voters (-4.7 percent), indicating that the degree of underrepresentation of blacks is greater in the former than the latter list. This means that shifting from the list of registered voters to the list of licensed drivers for the jury source list would increase the degree of underrepresentation of blacks. The opposite is the case for Hispanics, where shifting from registered voters (-11.8 percent) to licensed drivers (-6.8 percent) would improve their representativeness in the jury pool.

Consider the increase in the number of blacks required in the two lists to achieve perfect equivalence with the voting-age population. While 31,989 (12.3 percent) of the 261,041 registered voters are black, perfect equivalence with the voting-age population (12.9 percent black) would require 33,674 black registered voters, an increase of 1,685. Perfect equivalence with the voting-age population for blacks in the list of licensed drivers would require 34,204 black licensed drivers, an increase of 2,701.

There was interest in the Lucas County court system in ascertaining whether merging the list of registered voters with the list of licensed drivers would increase the

overall racial representativeness. We made the effort and found that it was methodologically impossible to merge the lists of registered voters and licensed drivers in an acceptable manner because of large numbers of missing and inaccurate Social Security numbers.

Comparison of Source List and Jury Lists. We now turn to the various jury lists that lead to the actual venire (see Table 1). When we compare the list of potential jurors with the entire population of Lucas County over 18 years of age, we again see that blacks and Hispanics are underrepresented and whites are overrepresented as compared to the voting-age population. The comparative difference for blacks changes when moving from registered voters (-4.7 percent) to potential jurors (-7.4 percent), which means that procedures for pulling potential jurors from the list of registered voters resulted in a modest decrease in racial representativeness. The change in comparative difference for Hispanics from -11.8 percent for registered voters to -11.3 percent for potential jurors indicates that selection procedures produced a very slight increase in Hispanic representativeness. From the remaining lists, one sees increasing underrepresentation for blacks and Hispanics. There are substantial increases in the (negative) comparative difference from the list of those summoned for blacks (-8.2 percent) to those who actually answer the summons (-29.0 percent) and to those summoned for Hispanics (-12.1 percent) to those who answered the summons (-33.7 percent).

In addition to “Answered Summons,” the other two components of “Summoned” are “Undelivered” and “Not Serve No Reason.” A major reason for the disproportionately small numbers of blacks and Hispanics answering summonses is the very high rate of undelivered summonses. Undelivered summonses are clearly associated much more with Hispanics and blacks, with very high comparative differences of 70.5 percent and 36.5 percent, respectively. This reflects bad addresses and frequent moves. The residual category, “Not Serve No Reason,” shows small and not statistically significant comparative differences, meaning that the distribution among whites, blacks, and Hispanics who ignore summonses is similar to their distribution in the general population. However, a very substantial number of all groups do not respond to summonses.

The “Served” and “Excused” categories are components of the “Answered Summons” category. For whites, the comparative difference for “Served” (4.6 percent) is slightly smaller than for “Answered Summons” (5.4 percent), because a slightly more than expected number of whites received excuses (5.9 percent), but for blacks, we start with a disproportionately small number responding to summonses (-29.0 percent) but a somewhat greater proportion actually serving (-26.6 percent) because fewer excuses were received (-30.7 percent). Hispanics who answered summonses at the lowest rate (-33.7 percent) were less likely to receive excuses (-44.5 percent).

In sum, blacks and Hispanics are underrepresented in a statistically significant degree beginning with the source list. At certain stages, as we move toward the final jury lists, the comparative differences for blacks and Hispanics increase substantially. The selection process introduces more bias into the final venire than what was found in the initial source list.

CONCLUSIONS

The list of registered voters is the typical source for jurors. In Lucas County, Ohio, we found that the list of licensed drivers is less representative of blacks than the list of registered voters, but more representative for Hispanics. Therefore, shifting from the list of registered voters to the list of licensed drivers for jury selection would worsen the degree of black representativeness in juries but would improve the representativeness for Hispanics. If our Lucas County results hold elsewhere, jurisdictions with large Hispanic populations may find the list of licensed drivers to be the preferred source list.

There are proponents of merging the two lists to enhance inclusiveness and representativeness, although results from the literature on the latter are mixed. Our effort to merge the two lists produced an unacceptably high number of duplicates because of problems with Social Security numbers, what Munsterman and Hannaford-Agor (2003) call “unrecognized duplicates.” Because Social Security numbers are recorded inaccurately for many voters and drivers, a statistically acceptable merged list currently appears to us to be technically unfeasible. Until we see good evidence to the contrary, we remain concerned that merging of source lists will result in an unacceptable number of duplicate names. Most reports by proponents of merged lists do not provide enough information to make a judgment about duplicates. Therefore, we think it is premature to call for merging two or more lists of residents of the jurisdiction to develop the jury source list.

Moving from the source list through the various jury lists revealed big increases in black and Hispanic underrepresentativeness. One important way to increase racial representativeness would be through administrative means. Adopting better procedures for tracking and enforcing summonses that would result in fewer citizens falling in the “Excused,” “Undelivered,” and “Not Serve No Reason” categories would increase the representativeness of both African-Americans and Hispanics in Lucas County venires. If jury duty were viewed as less onerous, the numbers in these categories would likely be reduced. Clearly, much bigger gains in racial representativeness can be achieved through better administration of the several steps in the jury-selection process. This makes more sense to us than many of the suggestions in the literature to merge or manipulate source lists, which risks the possibility of introducing inadvertent biases into the process. **jsj**

REFERENCES

- American Bar Association (2005). *Principles for Juries and Jury Trials*. Washington, DC: American Bar Association.
- (1996). *Trial by Jury Standards, ABA Standards for Criminal Justice: Discovery and Trial by Jury*, 3rd ed. Washington, DC: American Bar Association.

- (1968). *Standards Relating to Trial by Jury*. Washington, DC: American Bar Association Project on Criminal Justice.
- Boatright, R. G. (1998). *Improving Citizen Response to Jury Summonses: A Report with Recommendations*. Chicago: American Judicature Society.
- Bueker, J. P. (1997). "Jury Source Lists: Does Supplementation Really Work?" 82 *Cornell Law Review* 390.
- Bullock, C. S. III, and C. Lamb (1984). *Implementation of Civil Rights Policy*. Monterey, CA: Brooks/Cole Publishing Company.
- Domitrovich, S. (1994). "Jury Source Lists and the Community's Need to Achieve Racial Balance on the Jury," 33 *Duquesne Law Review* 39.
- Fukurai, H., and E. W. Butler (1991). "Organization, Labor Force, and Jury Representation: Economic Excuses and Jury Participation," 49 *Jurimetrics Journal* 49.
- Fukurai, H., E. W. Butler, and R. Krooth (1993). *Race and the Jury: Racial Disenfranchisement and the Search for Justice*. New York: Plenum Press.
- Gujarati, D. N. (1995). *Basic Econometrics*, 3rd ed. New York: McGraw-Hill.
- Kairys, D., J. B. Kadane, and J. P. Lehoczyk (1977). "Jury Representativeness: A Mandate for Multiple Source Lists," 65 *California Law Review* 776.
- King, N. J., and G. T. Munsterman (1996). "Stratified Juror Selection: Cross-section by Design," 79 *Judicature* 273.
- Levine, J. P. (1992). *Juries and Politics*. Pacific Grove, CA: Brooks/Cole Publishing Company.
- Logan, C. H., and G. F. Cole (1983). "Reducing Bias in a Jury Source List by Combining Voters and Drivers," 67 *Judicature* 87.
- Mize, G. E., P. Hannaford-Agor, and N. L. Waters (2007). *The State-of-the-States Survey of Jury Improvement Efforts: A Compendium Report*. Williamsburg, VA: National Center for State Courts.
- Munsterman, G. T. (1996). *Jury System Management*. Williamsburg, VA: National Center for State Courts.
- Munsterman, G. T., and P. L. Hannaford-Agor (2003). *The Promise and Challenges of Jury System Technology*. Williamsburg, VA: National Center for State Courts.
- Munsterman, G. T., P. L. Hannaford, and G. M. Whitehead, eds. (1997). *Jury Trial Innovations*. Williamsburg, VA: National Center for State Courts.
- Munsterman, G. T., and J. T. Munsterman (1986). "The Search for Jury Representativeness," 11 *Justice System Journal* 59.
- Rottman, D. B., C. R. Flango, M. T. Cantrell, R. Hansen, and N. LaFountain (2000). *State Court Organization: 1998*. Washington, DC: U.S. Department of Justice, Office of Justice Programs.
- Schwartz, V. E., M. A. Behrens, and C. Silvermann (2003). *The Jury Patriotism Act: Making Jury Service More Appealing and Rewarding to Citizens*. Washington, DC: American Legislative Exchange Council. <http://www.alec.org>

U.S. Census Bureau (2005). *American Community Survey*.

Wolfinger, R. E., and J. Hoffman (2001). "Registering and Voting with Motor Voter," 34 *PS: Political Science and Politics* 85.

CASES CITED

Avery v. Georgia, 345 U.S. 559 (1953).

Castaneda v. Partida, 430 U.S. 482 (1977).

Duncan v. Louisiana, 391 U.S.145 (1968).

Norris v. Alabama, 294 U.S. 587 (1935).

Powers v. Ohio, 499 U.S. 400 (1991).

Strauder v. West Virginia, 100 U.S. 303 (1880).