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Source Lists

Single and Multiple Lists

Well over half the states use more than one source list as the source of names for jurors. The use of multiple lists provides greater coverage of the eligible population than most single lists can provide.⁴¹ The most common combination is the list of registered voters and the list of licensed drivers. The latter list usually includes persons issued identification (ID) cards.

Duplicate Recognition

When courts combine source lists to arrive at a single combined list, the greatest problem is the identification and elimination of duplicates.⁴² The reason duplicates should be removed is that if a person is on two lists, that person would have twice the chance of being selected. Equal probability of selection is the most common definition of randomness.⁴³ In the duplicate recognition process, there are two errors which can occur:

1. Two names are thought to be the same person but are not. The elimination of one name eliminates a person from consideration for jury service (false duplicate).
2. Two names are thought to be different persons when in fact they are the same person. The result is that this person has twice the chance of being selected compared to other persons (unrecognized duplicates).

Error 1 is by far a worse situation than error 2. The relationship between these errors is determined by the strictness of the matching criteria. As matching criteria become less strict, more unrecognized duplicates are left on the combined source list. Balancing these possible errors is a complex topic which courts are often not prepared to address. For this reason, list combination by an outside vendor or a centralized in-state facility may bring the needed skills to this problem.

When duplicates are recognized, then a single record is kept. However, there are often still discrepancies between the two records. The record that has the best information is the one that should be used. This is referred to as the list priority. The list priority may be fixed - that is, one list may be consistently more up-to-date than others. For example, the licensed drivers list tends to be more up-to-date than the registered voters list. Alternatively, the list priority may not be fixed, in which case courts should use the records most recently updated. The process of developing a single record from the duplicates is called the “roll-up” process and can be quite complex. Consider, for instance, two duplicate records, one with an out-of-state address. The better list indicates an out-of-state address. Should the name be rejected as an out-of-state resident or should the second address, which is in-state, be retained? Again, rather than disenfranchise a person, courts should err on the side of including as many persons as possible to avoid “systematic exclusion.”⁴⁴

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⁴¹ Massachusetts is unique in that the statutes require every city and town to conduct an annual comprehensive census of all citizens. This census is the juror source list.

⁴² This topic is covered in more basic detail in Jury System Management (JSM) in Chapter 2. Methods exist whereby the lists are independently sampled and the duplicates removed by comparing one sample to the entire other list. Simply comparing for duplicates between the samples is inadequate.

⁴³ See Standards, *supra* note 2, at Standard 3 (Random Selection Methods).

⁴⁴ *Duren v. Missouri*, 439 U.S. 357 (1979).

Some jury software incorporates the address in the juror identification number. The juror identification number is considered to be a unique identifier for all future jury management purposes. The inability to change the juror identification number could be a problem, as it would not track a person who moves to a new address.

Multiple Lists

When more than two lists are combined, the complexity is increased. Many states are looking to go beyond the voters and drivers/ID card holders lists for several reasons:

1. Other lists bring more persons into the jury system, enhancing inclusiveness.⁴⁵
2. Using more lists represents a “good faith” effort by the courts to include as many persons as possible from all walks of life.
3. Some lists are maintained more frequently and have better addresses.

New York and Connecticut have gone further in the use of multiple lists than other states. New York combines the voters, drivers/ID, state income tax, some welfare lists, and the list of persons receiving unemployment compensation. Connecticut uses all of these except the welfare list.

No matter how many are used, all of them will not be maintained by the courts, which means the courts will have to procure them from other government entities. This process is often complicated for the following reasons:

1. There are privacy issues which must be resolved (see Chapter 2).
2. The lists are complex in file structure, and some sorting and editing is needed to screen out persons who are not qualified for service (e.g., persons under the age of 18, persons living out-of-state).⁴⁶

3. The lists are maintained on some schedule which does not correspond to the need of the courts.
4. The work needed to provide the lists is probably an “unfunded mandate” upon the other state agencies.⁴⁷
5. There are compatibility problems between the systems providing the lists.
6. The agencies that maintain the lists have a sense of proprietary ownership.

In Connecticut and New York, a great deal of work was done with each agency that provided the lists to establish privacy protocols, schedules, formats and a sound working relationship. The work in these states has provided us with two other valuable insights into multiple lists. The first is an examination of the result or utility of using many lists, and the second is some new technologies to recognize duplicates.

The four lists and the size of each list in Connecticut is presented, below.⁴⁸

Type of List	List Size
Drivers/ID	2,326,800
Voters	1,944,738
Tax	1,879,969
Unemployment	110,129
Total	6,261,636

Editing and removing duplicates and combining the records produced a master list of 2,912,422 names.

⁴⁵ If everyone is included on a list, then a random selection from that list will be representative of the population within statistically determined tolerances (i.e., sampling error).

⁴⁶ When one metropolitan court finally learned how to request the drivers/ID list for only valid licenses that are new or have been renewed, the list provided was one-half the previous size.

⁴⁷ In Michigan, which uses only the drivers’ list, the Secretary of State previously worked with each county to provide the needed list. Now they produce a CD which has the list for every county in the state in alphabetical and random order along with a test file. Each county is given a password to enable it to access the lists on the CD.

⁴⁸ Vality Technology, “Report to the NCSC: Jury Selection System Final Report” (August 2, 2000).

Note that this is considerably larger than any of the constituent lists. Through the duplicate recognition process, it was possible to determine the number of names unique to each list and duplicated among the various lists. The results are presented in the following table.

Of the 2.9 million names, 900,381 are unique to just one of the lists. If, for instance, the tax list were not used, then 193,139 persons would not be on the source list. The tax list is highly duplicative, but the use of the tax list provides the most recent addresses. In the right hand portion of the table, the inter-list duplicates are included. Persons who vote, drive and pay taxes (TDV) make up 38% of the total, the largest by far of the constituent groups. Only 1.7% of the names are found on all four lists.

In New York the results are similar in that the welfare list (like the unemployment list) was small in comparison to the others, but each list provides a significant number of unique names. In both states, the lists are merged by the state and not at the court level. As of June 2002, New York, which developed an in-house matching procedure, has contracted for this work to be done by the same firm that provides the NCOA service. Connecticut began the process using Vality Technology and is considering developing its own in-house matching software.

Connecticut has introduced another interesting technology to the name-matching process via its work with Vality Technology.⁴⁹ Typically two records or names are matched and a decision is made as to whether the names are duplicates. Some “conditioning” >>

Table 2.2 Vality Technology					
Source	Number	Percent	Source	Number	Percent
Tax (T)	193,139	21.5	T	193,139	6.632
Drivers (D)	366,307	40.7	D	366,307	12.577
Voters (V)	334,945	37.2	V	334,945	11.501
Unemployment (U)	5,990	0.6	U	5,990	0.206
			TD	396,227	13.605
			TV	54,626	1.876
			TU	6,183	0.212
			DV	338,477	11.622
			DU	7,406	0.254
			VU	2,466	0.085
			TDV	1,118,668	38.410
			TDU	28,666	0.984
			DVU	6,127	0.210
			TUV	3,646	0.125
			TDVU	49,549	1.701
Total	900,381	100.0		2,912,422	100.000

⁴⁹ The statistical matching technology was developed by Matchware Technologies, which was purchased by Vality Technologies, which is now Ascenture Inc., Boston, MA.

of the records may be necessary to make the record format more compatible, and there may be an edit routine to look for blank fields. At some point in the process, based on agreement between the characters in the records, a decision is made as to whether the records are duplicates or are records of unique individuals. This decision is a binary decision based on the fields matched between the records. The Connecticut work brought the technology of statistical matching to the jury list issue. The technology has wide applications in other fields and grew out of work begun in the census and medical record fields.

In statistical matching, the program develops a probability that two records are or are not the same, based on statistical properties of the records. The statistics are developed by the program based on the occurrence of certain names or characters on the lists. For instance, two records from "Tom Smith" have a low probability of being the same person, and other information must match as well in order to determine a match. However, a very unique name would need far less additional information to determine whether or not it is a duplicate. Highly unique fields such as Social Security number or birth date may require little additional information. In fact, many courts consider Social Security numbers to be totally unique, although this is not necessarily the case especially when input errors are included. Streets which have few addresses provide a better indication of a match than do streets with many addresses.

The degree of matching desired by the court can be tested. In Connecticut, the number of matches could be examined for various levels of statistical probabilities. It was also possible to examine pairs of records near the statistical cut-off valves to view examples of pairs of records considered to be or not to be duplicates. Since the probabilities are developed for each merging, the technique is adaptive to the addition of lists or changes in the lists.

This work in Connecticut is the first application of this technology. Since no merging of the same lists using binary techniques is available, we do not have any evaluative data by which to compare the two methods.

Techniques for Improving List Accuracy

Correcting or updating lists may be done after the lists are merged to further improve their accuracy or prior to merging to take advantage of the better addresses in the duplication matching process. The question then is one of which list or lists should be brought up to date and when.

The newly merged lists are subject to several processes. One is "geo-coding," which ensures that each record has a proper address or designation within the jurisdiction and ascertains that all addresses are within the jurisdiction. Some people maintain mailing addresses outside of the jurisdiction, making residency an issue for qualification purposes. People who maintain several addresses, such as persons with summer or winter homes, or people who maintain an official residency for tax purposes but live in another jurisdiction, require courts to carefully consider the definitions of residency. In Massachusetts, jury service jurisdiction is based on where the person spent the majority of time in the past year. Other courts base jurisdiction on where the prospective juror pays taxes or which address is used for federal income tax purposes. The jurisdiction in which a person is registered to vote is another source of established residency.

Many courts use the National Change of Address (NCOA) system to update master jury lists. This service is available from firms licensed through the U.S. Postal Service. These firms have access to the change of address data given to the Post Office by people when they move. Details on these services and the firms licensed to provide these services can be found on the USPS website.⁵⁰ In addition to updating the addresses, these services code addresses into zip + 4 or other delivery codes so that courts can take advantage of the reduced mailing rates. The money saved from fewer qualification questionnaires and summonses being returned as undeliverable more than pays for the NCOA costs.

Before the new master list or source list is used to select names of jurors, a number of other edits are often applied. These are referred to as suppression files in that they suppress from selection the names of people with certain characteristics. A common type of

⁵⁰ See <http://www.usps.com>.

suppression file is derived from the list of recently deceased persons, which is maintained by the state or local office of vital statistics. Another common suppression file is the names of persons who have served as jurors and are now exempt from service for a specified period of time. Some courts simply remove last year's jurors from this list. Others update the record of those persons who have previously served with the last service date, which permits a "moving window" of the statutory exemption. Courts should be careful about how this exemption is applied and to whom because the definition of what constitutes "prior service" is sometimes difficult to interpret. Do citizens qualify for the prior service exemption if their names were previously selected, or if they were actually summoned, or if they reported or completed their service by being available, or if they were actually sworn on a jury? To further complicate matters, some states vary the length of the prior exemption on the length or conditions of the prior service.

Another suppression file consists of the names of persons permanently exempt or excused from jury service, typically persons suffering from a terminal illness or who are not capable of serving based on a permanent mental or physical disability. The purpose of these lists is to remove the burden or embarrassment of service from certain persons however, this is also the means by which a person is deprived of the right to be considered. The records should contain annotations of who authorized the exemption and on what basis it was made (e.g., doctor's certification).

Another source of information by which to update a file are the records of persons previously summoned but whose summonses were returned as undeliverable. Some courts will not summon such people again, while others are very careful not to eliminate anyone without statutory authority. Automated systems should monitor the size and continued validity of suppression files to ensure that the names of persons who are included in a suppression file continue to be excluded from jury service. This can be particularly problematic with suppression files consisting of previously undeliverable summonses because those names can later be selected at a new, valid address but may be mistakenly suppressed based on the previous bad address. This not only effectively disenfranchises those persons from

jury service, but also places a disproportionate burden on those individuals who are not included in the suppression files.

This fear of disenfranchising a person and making the jury system subject to challenge leads courts to be extremely cautious about editing lists or even eliminating duplicates. The jury system may be more defensible when such a conservative approach is taken, however, the result is a greater burden of service on some people and increased costs due to higher undeliverable or non-response rates.

Random Selection

Until relatively recently,⁵¹ the application of technology to the random selection process merely automated the manual method, which involved selecting every n^{th} name from the master jury list, where the n represented the random selection "interval." For example, if a court needed 1,000 names from a list of 90,000 on the master jury list, court staff would first calculate the interval by dividing 90,000 by 1,000, which results in an interval of 90. They would then choose a number between 1 and 90 (typically by some non-random method) as the starting point and select every 90th name on the list thereafter. If the start number was 47, then the first name selected was 47 and then 137, then 227, and so on throughout the entire list. Random selection by computer simulated this method by generating a sequence of random numbers of some specified number of digits. However, while scientific applications increasingly improved their random number generator programs, those programs that were available to courts on county data processing systems continued to be quite primitive. Where else in government data processing was a random number ever used?

A significant limitation of these more primitive random number generators was that they were not purely random at all, but rather were based on a manipulation of numbers derived from some internal computer number, such as the time of day when the random generator was used based on the computer's internal clock. This input was called the seed of the generator. The same seed always produced the same sequence of numbers. The sequence of numbers before the >>

⁵¹ Some courts, even those with automation, put the names of all prospective jurors on cards or ballots, placed the cards in a large drum (called the "jury wheel") and randomized by shaking or turning the drum, similar to a bingo wheel.

sequence “starts over” was called the period of the random number generator. Depending on the length of this period, it was possible to begin selecting the same names from the master jury list after a relatively few number of tries.

To be truly random, however, each number should have the same probability of occurrence *every time* a random number is generated. Most contemporary random number generator methods are non-repeating - that is, once a number is selected, it will not be selected again until all numbers have been selected. Thus, if each person on the source list is represented by a unique number, then selecting a random number and then selecting the name that has that number is a perfectly good method of random selection. It is the technological analog of reaching into the rotated barrel and selecting a ballot, then reaching in again until all of the ballots have been selected.

Ironically, when the random selection process is functioning appropriately, many courts begin to question the randomness of their selection system, particularly when some people complain of being summoned every year while others are seldom called or perhaps have never been called. With reduced terms of jury service, such as one day/one trial, larger proportions of the list are selected, and the probability of being selected several years in a row increases. Table 2.3 provides a simple illustration of this. If a court requires that half of the source list be selected each year, and if everyone is eligible every year, then after 5 years, 3% of the persons will have been called every year and 3% will never have been called. This is simply the expected statistical result of repeated random draws.

Table 2.3
Probability of being summoned over a 5-year period under random selection procedures*

Year 1	50% selected 50% not selected
Year 2	25% selected both years 50% selected 1 of 2 years 25% not selected both years
Year 3	12.5% selected 3 years 37.5% selected 2 of 3 years 37.5% selected 1 of 3 years 12.5% not selected 3 years
Year 4	6.25% selected 4 years 25% selected 3 of 4 years 37.5% selected 2 of 4 years 25% selected 1 of 4 years 6.25% not selected 4 years
Year 5	3.125% selected 5 years 15.625% selected 4 of 5 years 31.25% selected 3 of 5 years 31.25% selected 2 of 5 years 15.625% selected 1 of 5 years 3.125% not selected 5 years

*Based on an annual selection of 50% of the names each year and no names being withheld from the selection.

Unfortunately, problems have been found in the random selection. Statistical tests which can be run on the output of the random number generator are available. A highly regarded set of these are known as the “Diehard Tests” developed by Professor George Marsaglia of Florida State University. They are in the public domain and can be downloaded with instructions from the Internet.⁵² Running these tests requires some knowledge of statistics and obviously familiarity with the computer system that runs the tests.

There are some very simple tests of the results of the selection which can be used to indicate problems. If an

⁵² See <http://stat.fsu.edu/~geo/diehard.html>.

alphabetical list of the names selected is available, then the end of the list should have persons with last names beginning with “Z” (assuming, of course, that the source list contained people with last names beginning with Z). The middle of this alphabetical list (that is, half way down the list) should have persons with last names beginning with K. The end of the list should be examined for names that cannot be alphabetized (e.g., those with no last name or with garbled spellings including number and other non-alphabetic characters).

If the distribution of the source list from which the names were randomly selected can be sorted by zip code, then the proportion of names selected in each zip code should mirror the proportion of the source list in each zip code.

Randomness problems are seldom due to the random number generator but are the result of the way the random numbers are applied. These simple tests are tests of the random selection as well as the application of those random numbers. More common problems occur when random number generators are not available and courts rely on inappropriate randomization techniques. For example, scrambling the name and address of the person and then sorting on the “scrambled code names” has been used and can produce some strange results. Letters or digits that appear to be random (e.g., a reversed zip code or Social Security number, the middle letter of a person’s last name) can produce non-random results. An automated random number generator is far superior.

The 2000 U.S. Census has provided some new data with which to evaluate the source list, the randomness, and in fact, the whole qualification and summoning process. Census data including the total adult (age 18 and over) population and its demographics can now be obtained by zip code.⁵³ Because the source list, the names of persons summoned, and persons reporting can all be sorted by zip code, it is now

possible to evaluate how well the source list, the summonses, and the resulting pool of persons who report for service reflect the population. The only trick with this analysis is that some zip codes extend beyond the boundaries of the jurisdiction. However, with some work, these can be identified and it can be noted in the analysis as to why these zip codes are underrepresented on the source lists and hence in the number selected and reporting.

Stratified Selection

Most courts use random selection methods to draw the names of prospective jurors from the entire source list. However, the source list may not be representative of the population, and the response to the summons may not be uniform across the jurisdiction. As a result, the venire or panels of persons reporting for service may not reflect the population in some cognizable way. That is, the first two requirements of *Duren v. Missouri* may not be met. Methods to address deficiencies in the source list or response rates include adding additional source lists, reducing the term of service, and following up on non-respondents to increase the representativeness of those responding. But what if these efforts do not solve the problem? Some courts use methods that treat the source list not as a single list, but as several lists which are differentiated by race/ethnicity or, more often, zip code or other local designation (e.g., census tract, voting district). Stratified selection involves applying a different random selection ratio to each individual list as a way to compensate for uneven representation or response rates.⁵⁴ The strata are the lists or the areas represented by the lists. While well intended, these methods can cause unintended consequences in that the probability of selection (i.e., randomness), now varies by strata.⁵⁵ Consequently, these methods need to be carefully considered. If used, the procedures should be very well documented and the results closely monitored. >>

⁵³ See <http://www.census.gov>. From the homepage, select “American Fact Finder” from the left-hand column, then select 2000 Summary File 1 from the list of U.S. Census 2000 datasets, and click on “detailed tables.” Then choose the desired geographic (e.g., county, zip code) and demographic focus (e.g., race/ethnicity).

⁵⁴ See Kim Forde-Mazrui, *Jural Districting: Selecting Impartial Juries Through Community Representation*, 52 *Vanderbilt L. Rev.* 353 (1999); Nancy J. King & G. Thomas Munsterman, *Stratified Juror Selection: Cross-Section by Design*, 79 *Judicature* 273 (1996); Nancy J. King, *Racial Jurymandering: Cancer or Cure? A Contemporary Review of Affirmative Action in Jury Selection*, 68 *N.Y.U. L. Rev.* 707 (1993).

⁵⁵ The use of race/ethnicity is particularly problematic because of additional concerns about the constitutionality of methods under Equal Protection jurisprudence. See *King & Munsterman, supra* note 49. Avern Cohn & David R. Sherwood, *The Rise and Fall of Affirmation Action in Jury Selection*, 32 *U. Mich. J.L. Ref.* (1999).

Random Selection for Multiple Courts

One aspect of random selection which has caused numerous problems over the last several years involves selecting names for multiple courts from the same source list. This often occurs in the process of drawing names for limited jurisdiction courts from a subdivision of the entire jurisdiction.

The first challenge involves correctly locating names on the source list within the relevant subdivision. The voter registration list generally includes this information already, since court districts are usually based on political boundaries such as voting precincts or districts. Lists of licensed drivers, however, may not have this coding available, making it necessary to “geo-code” it before selecting names for limited jurisdiction courts.⁵⁶ In any case, it is extremely important that courts do not eliminate or fail to consider a name from the master jury list even if a geo-code cannot be assigned. One jurisdiction made the mistake of removing names without geo-codes from consideration for summoning in both the limited jurisdiction and the general jurisdiction courts, the result being that approximately half the population was eliminated from the jury process.

The second critical issue is that courts that select names for limited as well as general jurisdiction courts should always draw the names for the general jurisdiction court first, before drawing the names for the limited jurisdiction courts. In many systems, names are drawn whenever the courts need names, with little consideration for the sequence or the problems that can occur, as one Michigan county discovered. This county had three limited jurisdiction courts and one general jurisdiction court. The four courts estimated their annual need, and the Automation Services Department selected names from the master jury list equal to the sum of the needs of the four courts.⁵⁷ The selection process randomized the list and in random sequence assigned persons to the limited

jurisdiction courts first. When the needs of the limited jurisdiction courts were met, the remaining names were assigned to the general jurisdiction court under the reasoning that anyone could serve in that court. As it turned out, one of the limited jurisdiction courts in that county actually used all the available names assigned to it, thus keeping those names from being available for service in the general jurisdiction court. No one from that area of the county, which coincidentally encompassed the county’s only metropolitan area and which had the largest proportion of minority residents, was available for the general jurisdiction court.⁵⁸ The correct method would have been to select all the names for the year for the general jurisdiction court and then select the names for the limited jurisdiction courts.

Selection for Multiple General Jurisdiction Courts

The introduction of an additional general jurisdiction court site into a jurisdiction can also cause random selection problems. If the sites are geographically close, then randomly assigning persons to any site once they have been selected from the general population presents no problems. However, if the two sites are a long distance apart, then assigning a person to either site, while optimum for purposes of randomness and fair cross-section, could result in citizens being asked to travel to a site more distant than another court site. This is not only an inconvenience to the citizen, but also tends to undermine the principal reason for creating an additional site within the jurisdiction, which is to better serve the population. Why should jurors, who are part of the population served by the court,⁵⁹ be asked to bear the inconvenience of serving in a more remote location?

When faced with this multi-site situation, state and federal courts have usually divided the jurisdictions into sub-jurisdictions. The federal District Court of Arizona is divided into three divisions,⁶⁰ and persons serve in the court that serves their jurisdiction or division. In

⁵⁶ Many geo-coding systems or software packages are available as a legacy from the implementation of the 911 emergency call system. The software packages are often updated regularly as areas of the jurisdiction are developed or as streets are renamed.

⁵⁷ They did not use the entire list due to hardware and processing time considerations.

⁵⁸ The jury system was challenged, and the case eventually went to the Michigan Court of Appeals, where the defendants were granted a new trial. *Michigan v. Hubbard*, 552 N.W. 2d 593 (Mich. Ct. App. 1996).

⁵⁹ In fact, citizens access the courts more often as jurors than as litigants or as any other type of court user. If convenience is the reason for developing additional court sites, then it would follow that the convenience of jurors should be a primary concern.

⁶⁰ Court locations include Phoenix, Prescott, and Tucson.

many California state courts, the division of the counties is set by the previous municipal court boundaries.⁶¹ In other California courts, natural geographic boundaries are chosen, such as the mountain range that divides El Dorado County or the valley in Riverside County. In Cook County, Illinois (Chicago), Roosevelt Road, a major road that runs east to west through the city, is the accepted boundary; centrally located courts draw countywide, while courts in the northern or southern sections of Chicago draw from only their side of Roosevelt Road. The probability of selection of citizens in these sub-jurisdictional areas can vary depending on the needs of the courts for jurors. Unless the courts need jurors in the same proportion as there are potential jurors in the districts, the probability of being selected for jury service varies across the jurisdictions.

The method used in Los Angeles County allocates persons selected randomly countywide to the court nearest their home, but subject to the needs of each court. This allocation method is necessary, since the 39 court locations are not logically located among the population centers. The demographic characteristics of persons serving in each location are representative of that community but not of the county as a whole. That is, Santa Monica jurors tend to come from the area near that courthouse and are different demographically from those serving in the downtown courts or in many other sites. In a county the size of Los Angeles, expecting citizens to serve in any or all courts is unrealistic. California case law recognizes this by requiring demographics to apply at the Superior Court District level, not the county level.⁶² This requirement is met in the 39 courthouses in the 12 Districts.⁶³

Maricopa County, Arizona (Phoenix), used 2000 Census

data to evaluate several models of allocating jurors between the county's two court locations.⁶⁴ Court officials were interested in maintaining a countywide random selection process that would also minimize the inconvenience to citizens of driving long distances to the court. The problem that they encountered can be seen in the following table.

Sixty-four percent of the adult population in Maricopa County lives closest to the downtown location, but this court site needs 83% of the jurors summoned in a year. Assigning citizens to the court nearest their homes would result either in citizens near the Mesa court location serving less often than citizens in other

Table 2.4: Maricopa County

Courthouse	Population Nearest Courthouse	Jurors Needed at Courthouse
Downtown	64%	83%
Mesa	36%	17%
Total	100%	100%

parts of the county, thus violating principles of random selection, or in large numbers of citizens who live nearest the Mesa courthouse being assigned to the downtown facility. In fact, a person living across the street from the Mesa courthouse would almost always be summoned to serve downtown because so many people in that corner of the county are closer to Mesa than to downtown.

Several models were developed to better understand the other options available. The optimum solution in terms of minimizing travel distance is the "southeast >>

⁶¹ All of the municipal courts in California were unified with the Superior Courts, effective February 2001.

⁶² Williams v. Superior Court of Los Angeles County, 49 Cal. 3d 736 (1989).

⁶³ Because the area from which jurors are selected is represented by a circle around each court location, this allocation method is referred to as the "bulls-eye method."

⁶⁴ These courts were located in downtown Phoenix and in the city of Mesa. A third location was added in 2002.

corner” model described above, which is not easily understood or logical at first glance. An alternative model was one in which some percentage of citizens living closer to the Mesa facility would be assigned to the downtown facility and vice versa. This mixing of the two groups results in an increased convenience for some of the people summoned. However, the actual percentage to be “mixed” is arbitrary, within limits, just as municipal, geographic or street boundaries can be arbitrary. Unfortunately, there is little guidance in case law or elsewhere that discusses how to balance the competing factors of inconvenience and cross-section.

The method that was ultimately selected by the Maricopa County Superior Court seems to be a reasonable compromise. Every time names are drawn for summonses, 5% of the people who live closest to the downtown court will be asked to report to Mesa and 68% of the people who are closest to the Mesa location will be asked to report to the downtown courthouse. This maintains an equal probability of selection for all qualified Maricopa County residents and on average 70% of those selected will be asked to report to the courthouse closest to their residence. ■

