

**FJC Courtroom Use Study
Final Report Technical Appendices**

Technical Appendix One

The Sampling Frame

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Courtroom Use Study

The Sampling Frame

This appendix describes the development of the sampling frame we used to select study districts for the Courtroom Use Study. We first provide an overview of the sampling frame and then address several specific issues:

- Specification of the Study Population
- Stratification Characteristics of the Sample
- Sample Size, Sample Selection, and Unit of Observation
- Data Collection Time Frame
- Additional Stratification Characteristics Considered

We developed the sampling frame in response to previous studies of courtroom use, which have not been based on representative samples and therefore have not been generalizable, and in response to Congressman Shuster’s request that the judiciary document courtroom use with a “statistically significant sampling” of districts. We understood the phrase “statistically significant” to mean “representative” and believed Congressman Shuster also expected the study to be comprehensive and the results generalizable.¹

Overview of the Sampling Framework

Congressman Shuster’s request for a study did not specify whether the study should focus on the appellate, district, or bankruptcy courts (see Appendix 1), but the history of Congressional and judiciary debate about courtroom use suggested that the study should focus on the district courts. Before drawing the sample districts, we determined that the population of courts eligible for participation should be limited to Article III district courts of general jurisdiction operating under normal conditions. We defined normal conditions as a district that (1) had sufficient judicial capacity to handle its caseload and (2) was not experiencing significant disruption in operations caused by lack of access to regular courthouse facilities.

In deciding which districts might be excluded for disrupted operations, we made specific determinations about courts located in states affected by hurricanes in 2005. We also evaluated the status of courts that would experience a loss of courtroom inventory because of major construction during the study’s data collection period, and we examined the impact of judicial vacancies. After these inquiries, we excluded three districts from

¹ The design provides for descriptive statistics on courtroom use but is not intended to support the use of inferential statistics. A study that supported inferential statistics—one that provided for tests of statistically significant differences between courts, for example, or for tests of null hypotheses—would require a larger sample than time, resource, and cost constraints permit.

the population, two because renovation work would close one of the district's major courthouses during the study and one because a combination of high judgeship vacancies and a consequently high weighted caseload per serving judge had left the court in particularly dire circumstances. We later selected the two districts with closed courthouses as case study districts because the courthouse renovations had resulted in judges sharing courtrooms.

After considering a number of different criteria by which we might select the sample, we decided to draw a disproportionate stratified random sample based on two dimensions. One represented the demand for courtroom resources imposed by a court's caseload mix. The other represented the resources a court had available to meet the demand. The two dimensions were:

- (1) the proceedings-weighted caseload in each district (specifically, a recent filing cohort that we weighted by the average time district judges need to process proceedings, standardized across the district courts by dividing through with the number of district judge courtrooms), and
- (2) courtroom inventory (for this study, the number of courtrooms built out for use by active district and senior judges in the largest courthouse of the district).

We developed the proceedings-weighted caseload as a measure of demand for courtrooms. It has an analog in a familiar index of caseload demand, the per-judge weighted caseload measure of a district. The per-judge weighted caseload measure focuses on *district judges* as the resource for responding to caseload demand, taking account of the average proceeding and non-proceeding time required to process cases. Our measure, by contrast, focused on *courtrooms* as the resource. Caseload was weighted only for that portion of average case processing time typically associated with courtroom use (for example, trials, conferences, and hearings), not for time expended on cases elsewhere (for example, in chambers). Development of this weighted measure is described in more detail below.

We developed the second sampling dimension—courtroom inventory—as a measure of district resources for handling the types of events held in courtrooms. We could have selected a number of different measures to represent district resources, but we decided to use courtroom inventory to ensure the presence of large courthouses in the sample. If we had selected a simple random sample, we very likely would have drawn few large courthouses because fewer than one in five districts has a courthouse with a dozen or more district judge courtrooms. For several reasons, set out below, we believed it important to include a sufficient number of large courthouses and thus we over-sampled for these courthouses.

On the proceedings-weighted caseload dimension, we used a median split to place districts in the sampling frame—i.e., below the median and at or above the median. On the courthouse size dimension, we placed districts into one of six groups reflecting courthouses of increasing size. The result was a sampling frame defined by twelve cells (or

strata) and populated with eighty-eight district courts. Table 1 (at the end of this appendix) summarizes the sampling frame and its results.

Using a computerized random number generator, we drew from the population a disproportionate stratified random sample of twenty-four district courts—i.e., two districts from each of the twelve cells. By design this strategy over-sampled from the few districts with large courthouses.² With one exception, which is discussed below, we assigned each district at random to one of the two data collection periods (or waves) at the same time we drew the random sample.

In the sections that follow, we describe the rationale for many of the decisions we made in developing this plan and provide detailed information about the resulting sample.

Specification of the Study Population

We began the process of identifying the study population by assuming it would include all Article III district courts of general jurisdiction. Thus, we excluded the federal courts of appeals and the bankruptcy courts, which seemed not to be the focus of past Congressional interest. We also excluded the four Article I district courts (the Northern Mariana Islands, Guam, the Virgin Islands, and the Court of Federal Claims) and the Court of International Trade, which has a special subject-matter jurisdiction. We then established several criteria for exclusion to ensure that districts in the population would be functioning normally during the study. Criterion for exclusion were:

- (1) The court had a judicial vacancy rate greater than 33% as of July 2006 and the existing vacancies resulted in a significant reduction of judicial capacity.

Screening on these criteria was intended to ensure that sample courts had sufficient judicial capacity to handle their caseloads. We calculated judicial vacancy rates from information at the federal judiciary's website in July 2006.³ We made judgments about the likely loss of judicial capacity in a court by looking at how vacancies arose and whether judges taking senior status continued to actively carry a caseload. We assumed that vacancies resulting from retirement, elevation, and death resulted in actual loss of judicial capacity, whereas a simple change in status from active to senior might or might not reduce capacity. In courts with vacancies created by a judge taking senior status, we checked internal and external court web sites and spoke directly with a court administrator to determine whether the senior judge was taking a caseload and was allocated secretarial and law clerk staff. The allocation of staff to a senior judge normally indicates that the judge is

² The over-sampling of the large courthouses, which are of central importance to the study, is the reason the stratified sample is called disproportionate.

³ Go to www.uscourts.gov/judicialvac.html.

giving “substantial service” to a court.⁴ When a new senior judge retained staff, or when the court administrator indicated the judge was “in the draw and carrying a full caseload,” we assumed he or she was handling a significant caseload and concluded that the vacancy had not reduced judicial capacity. We also examined the district’s weighted caseload to assess the overall burden on the district, and we asked when the court expected existing vacancies to be filled. Only the Eastern District of California met the criterion for exclusion based on significant reduction in judicial capacity.

- (2) Most or all of the district’s main courthouse or a principal courthouse would be closed during the data collection period due to construction.

We screened on this criterion to eliminate the possibility of selecting a court where normal operations were disrupted because of limited access to courtrooms and chambers. We did not apply the exclusion to districts experiencing routine construction or partial renovation, nor did we apply it to districts where a disruption in operations was limited to a small or single courthouse, unless the affected district had only a few, or only small, courthouses. To determine candidates for exclusion, we solicited information from the Facilities Information Manager for the Space and Facilities Division of the Administrative Office about courthouses undergoing extensive renovation, construction, condemnation, and any other factor that was thought to disrupt operations.⁵ The manager provided an initial response based on personal knowledge and then followed up by asking for supplemental information from AO Program Managers having regional responsibility for courthouse facilities. AO staff brought to our attention circumstances affecting a number of courthouses. We concluded after our own follow-up with district personnel that construction made only two districts ineligible for inclusion in the sampling frame, but we also decided to include both districts in the study as case studies because construction necessitated the sharing of courtroom space in another courthouse.⁶

- (3) Due to the hurricanes of 2005, most or all of the district’s main courthouse or a principal courthouse would be closed or normal court operations would be severely distorted during the data collection period.

To determine whether any court might be a candidate for this exclusion, we first consulted with staff of the Space and Facilities Division of the Administrative Office (see Point 2 above). When we were satisfied we had received all potential

⁴ See the Guide to Judiciary Policy and Procedures, Vol. 3, Section B, Chapter 6: Senior Status for Article III Judges (http://jnet.ao.dcn/Guide/Volume_3/Section_B/Chapter_6.html). Each circuit determines for the district courts in the circuit the definition and evaluation of “substantial service” for a senior judge.

⁵ Additional information about potential candidates for exclusion came from chief district judges who were briefed on the proposed study at a meeting held on April 27, 2006. A few chief judges sought out research staff after the briefing to report on circumstances they felt might warrant inclusion in or exclusion from the study.

⁶ The two districts are the Southern District of New York and the District of Minnesota.

candidates, we conducted telephone interviews with the clerks of court in two districts to assess their circumstances. We determined from these calls that no districts would be excluded from the population because hurricane damage was still affecting court operations. The calls did alert us, however, to the possibility that we might have to assign one of the districts, the Eastern District of Louisiana, to the second data collection period. At the time we talked with the clerk (summer 2006), the district expected to reopen the courthouse by the time we would begin data collection in January 2007, but we felt we should give the district time to stabilize operations before collecting data there and thus would assign it to the second data collection wave if it were drawn in the random sample.

Stratification Characteristics of the Sample

We anticipated that districts would differ on measures of courtroom use and wanted to ensure that the sample included systematic inter-district variability on characteristics that might explain the differences. We decided, accordingly, to stratify the sample on two variables that we believed provided critical distinctions among districts. The first variable represented the demand for courtroom resources imposed by a court's caseload mix. The second represented the resources a court had available to meet the demand.

The Proceedings-Weighted Caseload of a District (Per Courtroom)

The proceedings-weighted caseload is a measure of the demand for courtrooms and hearing or conference rooms that a district must meet to handle its caseload. We calculated the measure on a per-courtroom basis for district filings from fiscal year 2005. The types of proceedings accounted for in the measure were jury and non-jury trials, conferences, and an extensive set of different types of hearings.⁷

The proceedings-based case weights were derived from a subset of the data used to calculate the 2004 district court case weights.⁸ The two weighting systems are related, but they differ in focus. The 2004 district court case weights measure the average time it takes for a district judge (active or senior) to process different types of cases. These weights factor in time associated not only with proceedings such as those noted above, but also time that judges spend preparing for proceedings and issuing substantive orders. Proceedings-based case weights, by contrast, incorporate only time that judges spend in proceedings. As a consequence, weights assigned to criminal case types under the proceedings-based system are generally larger than weights assigned under the 2004 district court case weighting system; the opposite holds for civil case types. These results are

⁷ The hearings included injunctive relief, evidentiary and non-evidentiary sentencings, other hearings involving the introduction of evidence, motions hearings, general hearings not involving the introduction of evidence, arraignments, and pleas.

⁸ A report titled 2003-2004 District Court Case-Weighting Study: Final Report to the Subcommittee on Judicial Statistics of the Committee on Judicial Resources of the Judicial Conference of the United States (2005) documents the development of the 2004 district court case weights. Pages 54-58 and Table 4 of Appendix Y of the report describe the computation of the weights. The report and its appendices are available at the Federal Judicial Center's internet website (<http://www.fjc.gov>).

predictable, since criminal case types tend on average to be more proceeding-intensive than civil case types.⁹

The total proceedings-weighted caseload describes pressure on the facilities of a district as a whole. Districts differ, of course, in the resources they can marshal to meet their caseload demand. To enable us to compare caseload pressures across districts, we needed to standardize the proceedings-weighted caseload. We did this by dividing each district's weighted caseload by a measure of the resources available in the court.

Two obvious candidates for standardizing presented themselves—the total number of courtrooms designated for use by active and senior district judges and magistrate judges, or the more limited number of courtrooms designated for use by active and senior district judges. Although this study focused equally on district judge and magistrate judge courtrooms, we standardized by the number of district judge courtrooms. We did so because the data used to develop the proceedings-based case weights (i.e., data from the 2004 District Court Case Weighting Study) did not account for proceedings time associated with magistrate judges.

We drew the data on the number of district judge courtrooms in each district from the July 2006 version of Snapshot View of Courtrooms and Judges (hereafter, Snapshot Report). The Administrative Office of the U.S. Courts compiles this document on a regular basis from GSA rent receipts and supplements it with information that AO Space and Facilities staff gather through contact with district courts. The Snapshot Report lists information about courthouses and courtrooms, including the number and type of judges appointed to each facility.¹⁰ We relied on the Snapshot Report to develop courtroom inventory information because we found it the most complete and up-to-date listing of court facilities available.¹¹

⁹ A comparison of the case weights from the two systems shows the correlation across case types to be $r=0.44$. A comparison of the weighted caseload of districts computed under the two systems shows a correlation of $r=0.37$.

¹⁰ The Snapshot Report counts a courtroom in its inventory if the courtroom "meets or exceeds the space standard detailed in the United States Courts Design Guide" or "functions on a daily basis without impeding the conduct of the court's business even though it does not meet established Design Guide standards", as reported by the courts (*see* <https://infoweb.ao.dcn/crtrmhlp.htm> and United States Courts Design Guide). Facilities that may be used for proceedings but that are not included in the Snapshot Report are those with any of the following features: 1) space less than 1000 square feet, 2) columns that obstruct the main viewing area, 3) ceiling heights at or below 9 feet, 4) acoustical problems (including problems with disturbance noise from adjacent rooms), and 5) dysfunctional layout (including cramped space for the bench, witness box, and jury box). Hearing rooms are not counted as courtrooms in the Snapshot Report.

¹¹ We examined a database containing information about courthouses that the Center obtained several years ago from the U.S. Marshals Service to see whether an updated version might provide a useful alternative to the Snapshot Report or might be used to validate the Snapshot Report. The Marshals Service data were not collected or organized in a way that was responsive to our research needs, however, so we did not pursue the possibility of obtaining an update. We also contacted the GSA to see whether it keeps an inventory of courthouses and courtrooms but again found the data were not recorded in a way that was useful for our study.

Courtroom Inventory in the Largest Courthouse

To represent the resources a district has available for meeting its caseload demands, we decided to use the number of courtrooms built for use by active and senior district judges in a district's largest courthouse.¹² Courtroom inventory correlates highly with other measures of court size such as the number of active and senior judges in a district ($r=0.89$), the number of active judges, senior judges and magistrate judges in a district ($r=0.84$), and the district-wide number of active district and senior judge courtrooms ($r=0.88$). We stratified on this dimension to ensure the presence of large courthouses in the sample.

We had several reasons for stratifying to ensure the presence of large courthouses in the sample. First, a large proportion of the district judges are resident in these courthouses. Second, the scheduling and use of courtrooms may be associated with courthouse size; logic suggested to us, for example, that scheduling options would be greater in courthouses with many courtrooms than in courthouses with few. Third, large courthouses may be more likely than small courthouses to include courtrooms with special features, such as a courtroom suitable for holding a multi-defendant trial or a ceremonial courtroom. And, finally, previous research had not settled the claim that courtroom sharing is feasible only in courthouses of a certain size.¹³

We used data from the Snapshot Report to classify the largest courthouse within each district court into six groups. The grouping we ultimately settled on—1-3 courtrooms; 4-5 courtrooms; 6-8 courtrooms; 9-11 courtrooms; 12-16 courtrooms; and 17-32 courtrooms—satisfies several criteria. To the extent possible, we wanted to maintain roughly equal spans (i.e., two to three courtrooms) in each of the groups. However, we adjusted the spans at the low end of the distribution because the preponderance of courthouses have a small number of courtrooms.¹⁴ And, to avoid a monolithic category at the top end, we allocated two in-

¹² The largest courthouse is simply the courthouse with the greatest number of built-out district judge courtrooms. Determining the largest courthouse is straightforward for most districts. We had to decide for several districts, however, whether courthouses located in the same city (at different or the same mailing addresses) were located so close together that they effectively functioned as a single courthouse. To make the determination, we looked at geographic distance, the presence of connecting hallways, and whether courthouse visitors were required to enter the building compound through a single security checkpoint. We determined that the two courthouses in Trenton, NJ function as a single courthouse, but that pairs of courthouses located in Erie, PA and in San Juan, PR function as separate facilities. We obtained courthouse addresses from a report compiled from GSA rent bills. Further detail is provided in a memorandum on file with project staff (Subject: Snapshot Report of District Courthouses, Courtrooms, and Judges, dated May 4, 2006 by Rebecca Norwick).

¹³ See conclusions about courthouse size and sharing in Edward H. Leekley and William T. Rule II, *The Impact of Providing Fewer Than One Courtroom Per Judgeship: Report to the Committee on Security, Space, and Facilities of the Judicial Conference of the United States*, Washington, D.C., March 1996, and in *Independent Assessment of the Judiciary's Space and Facilities Program*, Ernst & Young, May, 2000. Discussions of the limitation of the research are found at Federal Judicial Center Research Note on *The Impact of Providing Fewer Than One Courtroom Per Judgeship*, Federal Judicial Center, August 28, 1996, and Terence Dunworth and James S. Kakalik, *Research on Courtroom Sharing, Project Memorandum*, Rand Institute for Civil Justice, PM-598—1-ICJ, September, 1996.

¹⁴ In more than half the districts the largest courthouse has five or fewer courtrooms. In more than two-thirds of the districts the main courthouse has eight or fewer.

tervals to cover the very largest courthouse (12-16 courtrooms and 17-32 courtrooms). Finally, we wanted three or more districts in each stratum of the sampling frame to prevent predetermination of the sample districts from any particular stratum.

We considered a number of other courtroom inventory variables before settling on the number of courtrooms in the largest courthouse. Three measures that generated considerable discussion among the research team, but which we ultimately passed over for methodological reasons, involved (1) the total number of courtrooms throughout the district, (2) the configuration of courthouses within the district, and (3) inclusion of magistrate courtrooms in the inventory measure.

The first measure—total number of courtrooms available in a district—appears at first blush to be a leading candidate for stratifying the sample. The difficulty with this measure is that it fails to account for important differences in population that dictate size and placement of courthouses (and thus, courtrooms). There are districts in the western part of the U.S., for example, where judges who reside in one part of the state travel to courthouses without a resident judge in order to minimize inconvenience to lawyers and parties. In some instances, there are more courtrooms than there are judges, especially in districts with a small number of authorized judgeships. Districts in other parts of the country, by contrast, may have a single large courthouse located in a major urban center. In some of these courthouses, senior judges share courtrooms amongst themselves or with district judges. Variations between these two extremes are numerous. Because the total number of courtrooms in a district can offer a distorted view of the size of the district and its resources, we rejected the use of this courtroom inventory measure as a sampling dimension.¹⁵

The second measure—courthouse configuration within a district—was problematic because of difficulties in operationalizing it. We considered using courthouse configuration, which we expected to reflect a combination of courthouse size and dispersion throughout the district, as a possible stratification variable under the theory that the size and distribution of courthouses might affect the way judges handle cases. Our attempt to develop a classification system that distinguished districts on the basis of whether they had one small courthouse, one large courthouse, a main courthouse with one or more small satellites, a main courthouse with one or more large satellites, equal-sized small courthouses, or equal-sized large courthouses, proved problematic, however. We found ourselves making too many subjective decisions, so we rejected courthouse configuration as a possible sampling dimension.

The third measure—a count of courtrooms that included magistrate judge courtrooms—had several methodological weaknesses. The most significant argument against including magistrate judge courtrooms in the count involved differences in the functionality of courthouses with higher or lower proportions of magistrate judge courtrooms.

¹⁵ We attempted to improve on precision by considering only courtrooms located within “major” courthouses within a district. We found it impossible, however, to devise an algorithm that sensibly and systematically identified “major” courthouses. Finding the concept elusive, we chose instead the resource measure based on districts’ largest courthouse.

Functionality is a difficult concept to define with precision, but an example should clarify the notion. If magistrate judge courtrooms were included in the courtroom inventory measure, we would place into the same sampling strata two courthouses having ten courtrooms, even though the proportion of courtrooms assigned to district and magistrate judges could vary substantially. Thus, a courthouse where five of the ten courtrooms were built for and used by district judges would be treated as functionally equivalent to one in which seven of ten courtrooms were built for and used by district judges. Blurring these functional distinctions did not make sense to us, since we understood from anecdotal information and conversations held with court personnel that considerable variation exists, both within and across districts, in the size, fittings, and equipment of magistrate judge courtrooms, and that this variability is greater for magistrate judge courtrooms than for district judge courtrooms.¹⁶ In the interests of minimizing the amount of introduced error in the inventory dimension, therefore, we elected to base the inventory measure on district judge courtrooms only.

Two other methodological considerations favored our excluding magistrate judge courtrooms. Counting only district judge courtrooms preserved parity with the proceedings-based case weight measure (recall that we standardized on district judge courtrooms). It also provided a more favorable distribution of courthouses by number of courtrooms. Had we included magistrate judge courtrooms, we would have reduced the skew in the upper end of the courtroom distribution. This result, however, would have been at odds with the intent of the sampling frame, whose objective was to force courthouse size variability on the sample.

Sample Size, Sample Selection, and Unit of Observation

In the design document for this study, we indicated our intention to select twenty to twenty-four district courts for the sample.¹⁷ The decision to recommend this sample size was based on several considerations. First, we expected a sample of twenty to twenty-four courts to provide ample data to address the principal research questions. Second, this sample size would permit us to stratify on selected characteristics that could prove critical to understanding the findings. Third, this sample size coincided with a practical limit on the number of districts we thought we could effectively manage for the project.

The final sample consisted of twenty-four districts, the result of drawing two courts at random from each of the twelve strata (shown in Table 1). Study courts were selected within each strata by ordering the districts alphabetically, then linking each district to a sequence number ranging from 1 to the total number of districts in the strata. We used the the random number generator at <http://www.random.org/sform.html> to produce se-

¹⁶ These differences in courtroom configuration and use reflect the different responsibilities of district and magistrate judges. See the *U.S. Courts Design Guide and Summary of Revisions Endorsed by the September 2005 and March 2006 Judicial Conference* (Administrative Office of the U.S. Courts, published 1997 and 2006, respectively) for information about the differences between courtrooms built for district and magistrate judges.

¹⁷ See Preliminary Design for a Study of Courtroom Use, prepared for the Courtroom Subcommittee of the Court Administration and Case Management Committee, Federal Judicial Center, March 10, 2006.

quence numbers, and then generally assigned the districts associated with digits 1 and 2 to serve respectively as the first and second wave sample courts from the strata.

The exceptions we made to wave assignments resulted from practical considerations. We swapped three pairs of district courts from the same strata to minimize the potential effect of interference from implementation of CM/ECF. We swapped another court with its paired district when we learned from the court that we would likely need to develop special software for the data collection effort there.¹⁸

An exception that we anticipated before even drawing the sample involved the Eastern District of Louisiana, whose main courthouse is located in New Orleans. When identifying the study population, we had determined that the courthouse would be closed due to hurricane damage at the time we drew the sample. Because the district expected to reopen the courthouse not later than the fall of 2006 and assured us it would be functioning normally, and because the district otherwise met the criteria for inclusion in the population, we decided to leave it in the population. We determined, however, that if the district were selected we would assign it to the second wave of data collection to permit operations to stabilize. As it turns out, the district was selected and was randomly assigned the digit 1. We moved it, notwithstanding, into the second data collection wave and shifted its counterpart to the first data collection wave.

The final sample included at least one district from each federal circuit except the District of Columbia Circuit (which has only a single district court). It also included three border districts, which we had hoped the sample would include because of their high caseloads but which we had decided against using as a sampling dimension.

In the interest of examining the experience of districts where judges share courtrooms, we added to the study three districts where we became aware that judges were sharing courtrooms. We did not systematically search for sharing districts but used those that came to our attention. These were the Southern District of New York and the District of Minnesota, where judges were sharing courtrooms due to the closure of courthouses for construction, and the District of South Dakota, where the judges have shared courtrooms as a matter of policy for some years.^{19, 20} We decided to treat these districts like the sample districts and include them in all aspects of the data collection process.

¹⁸ Further detail is provided in a memorandum on file with project staff (Subject: Assignment of Study Courts to Waves, dated October 3, 2006 by Donna Stienstra).

¹⁹ Judges who normally occupy the Thurgood Marshall United States Courthouse in New York City have been sharing courtrooms with judges resident in the nearby Daniel Patrick Moynihan United States Courthouse since 2006, a situation that is expected to continue until sometime in 2010. Judges who normally occupy the Warren E. Burger Federal Building in St. Paul, MN are working in leased space that they use to handle some civil and criminal case proceedings, but hearings, trials, and criminal proceedings in which a defendant is detained are handled in shared courtroom facilities in Minneapolis. Reconstruction on the St. Paul courthouse is not expected to be completed until 2009.

²⁰ The chief judge in the District of South Dakota informed us of the court's practice of sharing courtrooms via a letter dated May 15, 2006 that is on file with the study team.

The unit of observation for the study was every courtroom in the district that was built for use by an active district judge, senior judge, visiting judge, or magistrate judge. This unit of observation allowed for analyses that reflected meaningful distinctions, such as how district judge courtrooms were used in comparison to magistrate judge or senior judge courtrooms, and how much use was made of courtrooms in courthouses having no resident judge. Focusing on courtrooms as the unit of observation also permitted us to aggregate data to the level of courthouses and districts, making possible, for example, a comparison of use in large and small courthouses.²¹

Summary of the Sampling Frame, Population, and Sample

Table 1 summarizes the sampling frame, lists the district courts that comprised the population, and identifies (in bold font) the districts selected into the study sample. The case study districts are identified, as are the districts we excluded from the population. The proceedings-weighted caseload of each district appears next to its name.

Additional Stratification Characteristics Considered

We considered other stratification characteristics before settling on the proceedings-weighted caseload and courtroom inventory measures. Among those considered but set aside were:

Measures of Caseload Demand on Resources

- per-judge weighted caseload measure: 2004 district court case weights applied to filings;
- per-judge weighted caseload measure: proceedings-based case weights applied to filings; and
- per-judge average of time spent conducting proceedings (computed as the average of three recent fiscal years of time data reported on the JS-10, the monthly report of courtroom activity).

Measures of Resource Availability

- various measures of judicial capacity (e.g., the number of authorized judgeships or active district judges in combination with such additions as senior judges and magistrate judges; the number of authorized judgeships with number of vacancies removed); and
- various measures of courtroom inventory (e.g., number of courtrooms built out for active judges and senior judges, with and without removal of courtrooms used for visiting judges and courtrooms in non-resident judge courthouses; similar measures that included the number of courtrooms used by magistrate judges; total number of courtrooms available in the courthouses in a district; total number of courtrooms available in the “major” courthouses in a district).

²¹ We designed the study to collect data that describe the use of chambers and conference rooms as well.

District Characteristics

- distinctions based on geographic dispersion (e.g., circuit representation);
- distinctions based on population density (e.g., urban and metropolitan courts v. courts in less populated areas);
- distinctions based on the configuration of courthouse facilities; and
- distinctions between border and nonborder courts.

We anticipated that random selection would result in a sample having geographic dispersion and a range of different courthouse configurations. This expectation was born out.

Most of the remaining candidates failed to make the final cut because we believed the stratification variables we ultimately chose were either more responsive to the underlying research questions or were more precise.

Table 1. Classification of District Courts into the Sampling Frame[#]

Number of Courtrooms in the Largest Courthouse (visiting facilities removed)	Proceedings-Weighted Filings Per Courtroom			
	Below the Median Value of 278 (weighted filing)		At or Above the Median Value of 278 (weighted filing)	
1-3	AR-W (211) FL-N (172) IL-C (188) ME (191) MS-N (154) ND (226)	IA-N (232) KY-E (253) NC-M (261) OK-E (250) VA-W (250) WI-W (237)	GA-S (280) ID (279) KY-W (286) LA-M (309) TN-E (329) VT (332) WV-N (329) WY (303)	IA-S (368) IL-S (375) MI-W (435) MT (408) NC-E (355) NC-W (645) SD (372)
4-5	AK (114) LA-W (185) NH (157) OK-N (151) RI (175) WA-E (169) WV-S (124)	CT (210) DE (240) GA-M (264) KS (223) NY-N (218) PA-M (248) TN-M (264)	AL-S (294) IN-N (291) NE (284) NY-W (340) OH-S (286) TN-W (362)	SC (379) HI (388) MS-S (465) NM (490) TX-E (408) TX-W (758)
6-8	AL-M (181) IN-S (375) WI-E (255)		FL-M (385) NV (315) PR (319) VA-E (378)	AR-E (440) MN (461) ⁺ UT (424)
9-11	AL-N (160) NJ (206) OK-W (140)	CA-E (221) [*] OR (235) TX-N (265)	CO (278) MO-W (280) OH-N (290)	FL-S (335) MO-E (336) NY-E (331)
12-16	DC (221) MA (185) PA-W (171)	GA-N (262) MD (275) WA-W (238)	AZ (475) CA-S (356)	TX-S (487)
17-32	CA-N (212) LA-E (185) [^]	MI-E (229) NY-S (247) ⁺	CA-C (290) PA-E (290)	IL-N (299)

Five district courts were considered ineligible for the study and do not appear in the table below. Four are not Article III courts: the Court of Federal Claims, the Virgin Islands, Guam, and the Northern Mariana Islands. One has a specialized subject-matter jurisdiction: the Court of International Trade.

+ MN and NY-S: Removed from the population because construction-related courtroom loss disrupted normal court operations; included as case study districts. SD: Also included as a case study district due to a court policy that judges share courtrooms.

* Removed from the population because the loss of a judgeship combined with a high weighted caseload (927, the highest of the district courts) produced a situation failing to meet our requirement that a court be operating under normal conditions.

[^] Removed from study before data collection began because a change in filing patterns made the district no longer representative of its sampling cell.