Decision-Related Research on Technology Utilized by
Local Government: Court Scheduling, Phase II
Final Report. Volume II: Research Papers

Institute for Law and Social Research, Washington, DC

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nal Science Foundation, Washington, DC

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TECHNOLOGY UTILIZED BY LOCAL GOVERNMENT:
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PHASE II FINAL REPORT

VOLUME II:

RESEARCH PAPERS

DECEMBER 1978

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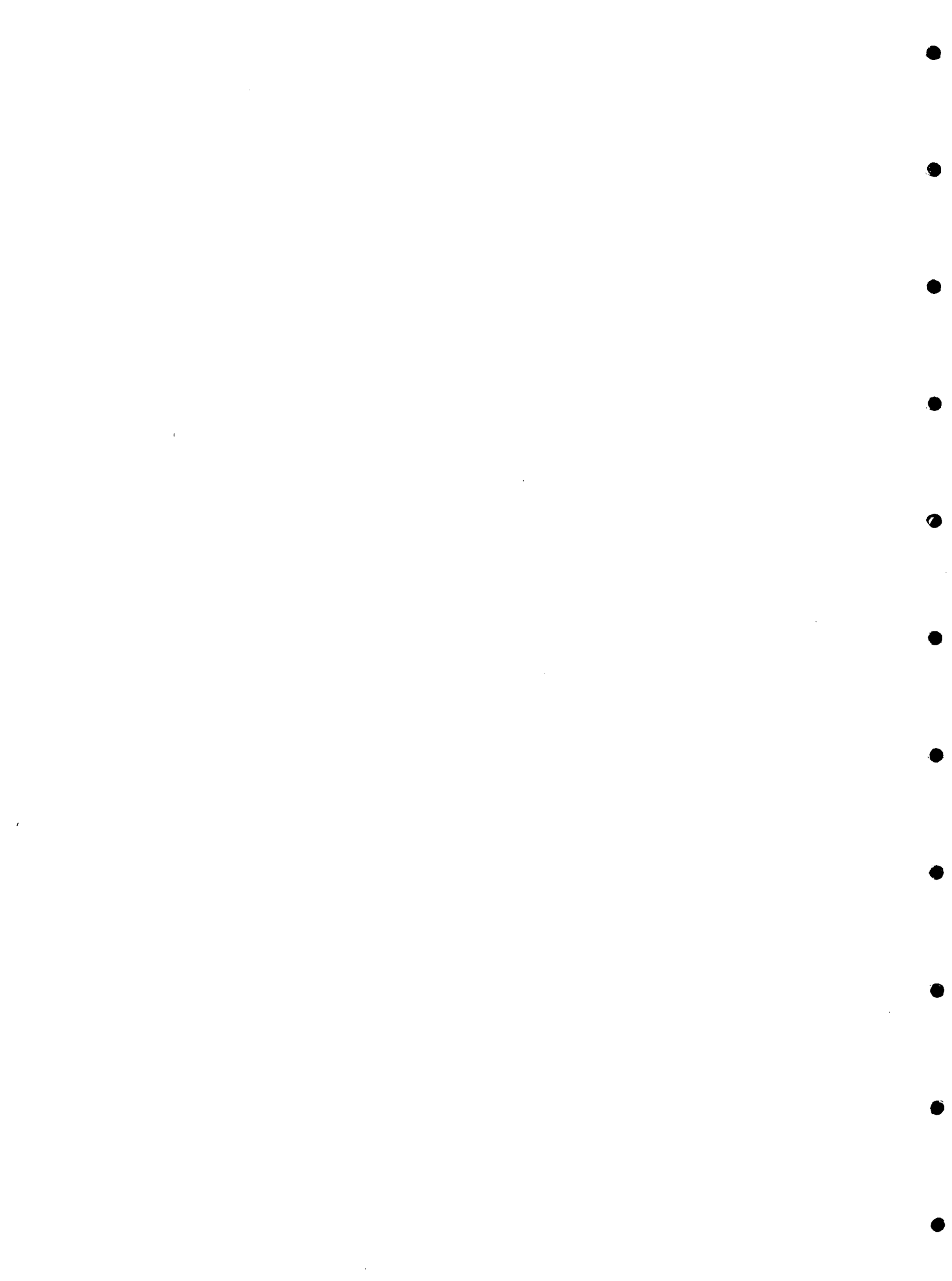
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Volume II of the court scheduling project contains five papers describing the findings and recommendations associated with the management component of the Scheduling Model. The papers included are: (1) Improving the Calendaring Process through More Precise Predictions of Event Duration; (2) Performance Implications of Selecting a Case Assignment System and Calendar Mode; (3) Issues in Court Scheduling Management; (4) How to Conduct a Systems Analysis in Your Court; and (5) Case Studies in the Transfer of Scheduling Technology. Attachments include questionnaires, work plans for various courts, and some judicial allocation models.

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Legal services

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Models
Planning

Management

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DECISION-RELATED RESEARCH ON TECHNOLOGY
UTILIZED BY LOCAL GOVERNMENT: COURT SCHEDULING

PHASE II FINAL REPORT

Volume II

Research Papers

December 1978

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PREFACE

This report was prepared by the Institute for Law and Social Research (INSLAW) to document the results of the second and final phase of a study entitled "Decision Related Research on Technology Utilized by Local Government: Court Scheduling." The research and preparation of the report were supported by the National Science Foundation's Division of Advanced Productivity Research and Technology, under Grant APR74-20530.

The first phase of our research consisted of a survey of the "state-of-the-art" of court scheduling, development of a comprehensive scheduling model, and identification of areas in need of further research and development.

In the second phase we sought to fill some of the identified void through research, development and technology transfer. The results of those efforts are described in this three-volume Final Report:

Volume I   - Methodology, Accomplishments, Findings and Conclusions.

Includes an overview of the entire project as well as individual Phase II task descriptions.

Volume II - Research Papers.

Five papers describing findings and
recommendations associated with the
management component of the scheduling
model. The papers address the value
of greater predictability in schedul-
ing, issues in scheduling management,
systems analysis in a court, and a
case study.

Volume III - Scheduling Software Description.

Documents the computer software
developed as the data support component
of the model scheduling system. De-
tailed program documentation is included
along with a description of their inter-
face with the host-file-maintenance
system, Minicomputer PROMIS.

ACKNOWLEDGMENTS

This project spanned four years and, upon reflection,
a large number of formal and informal contributors.

Our Advisory Board was quite active during Phase I
in providing direction and responding to questions, ideas,
and proposals. During Phase II, their review and support
were more frequently on an individual basis as we worked
with them or their court.

The Advisory Board consisted of Alvin Ash, Law En-
forcement Assistance Administration, Washington, DC; S.
Allen Friedman, Minneapolis, MN; L.M. Jacobs, Court Admin-
istrator, Wayne County Circuit Court, Detroit, MI; The
Honorable Tim Murphy, Judge, Superior Court for the Dis-
trict of Columbia, Washington, DC; Larry P. Polansky,
Deputy State Court Administrator, Philadelphia, PA; Albert
Szal, Court Administrator, Superior Court, San Diego, CA;
The Honorable James B. Zimmermann, Judge, Criminal District
Court, Dallas, TX; and Ronald Witkowiak, District Court Ad-
ministrator, Milwaukee, WI.

Additional contributions were made by Maureen Solomon,
Court Management Consultant, Denver, CO; G. Thomas Munster-
man, Bird Engineering, Vienna, VA; Sidney Brounstein, Sil-
ver Spring, MD; and Gary Oleson, Fairfax, VA.

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IMPROVING THE CALENDARING PROCESS
THROUGH MORE PRECISE PREDICTIONS
OF EVENT DURATION

Intuition and common sense suggest, of course, that court scheduling would benefit substantially from more precise estimates of event duration. Through the construction and utilization of a digital computer simulation model--a mathematical representation of a case-scheduling system--the impact on court performance of excessive uncertainty about expected event duration was assessed.

The Simulation Model

Based on theoretical and empirical knowledge, a mathematical model is a representation of a system and is used to study that system. Model building is advantageous in many respects. In particular, modeling enables the analyst to organize his beliefs and observations about the system, gain an understanding of and an appreciation for the system, establish a framework in which modifications of the system can be tested, control the sources of variation in the system, and obtain relatively inexpensive, and timely results.

Simulation, a nonanalytical problem-solving technique, represents a system by using a model to produce numerical results for alternative system designs. This technique allows the analyst to view the impact of various scenarios under identical circumstances at relatively small cost in a short period
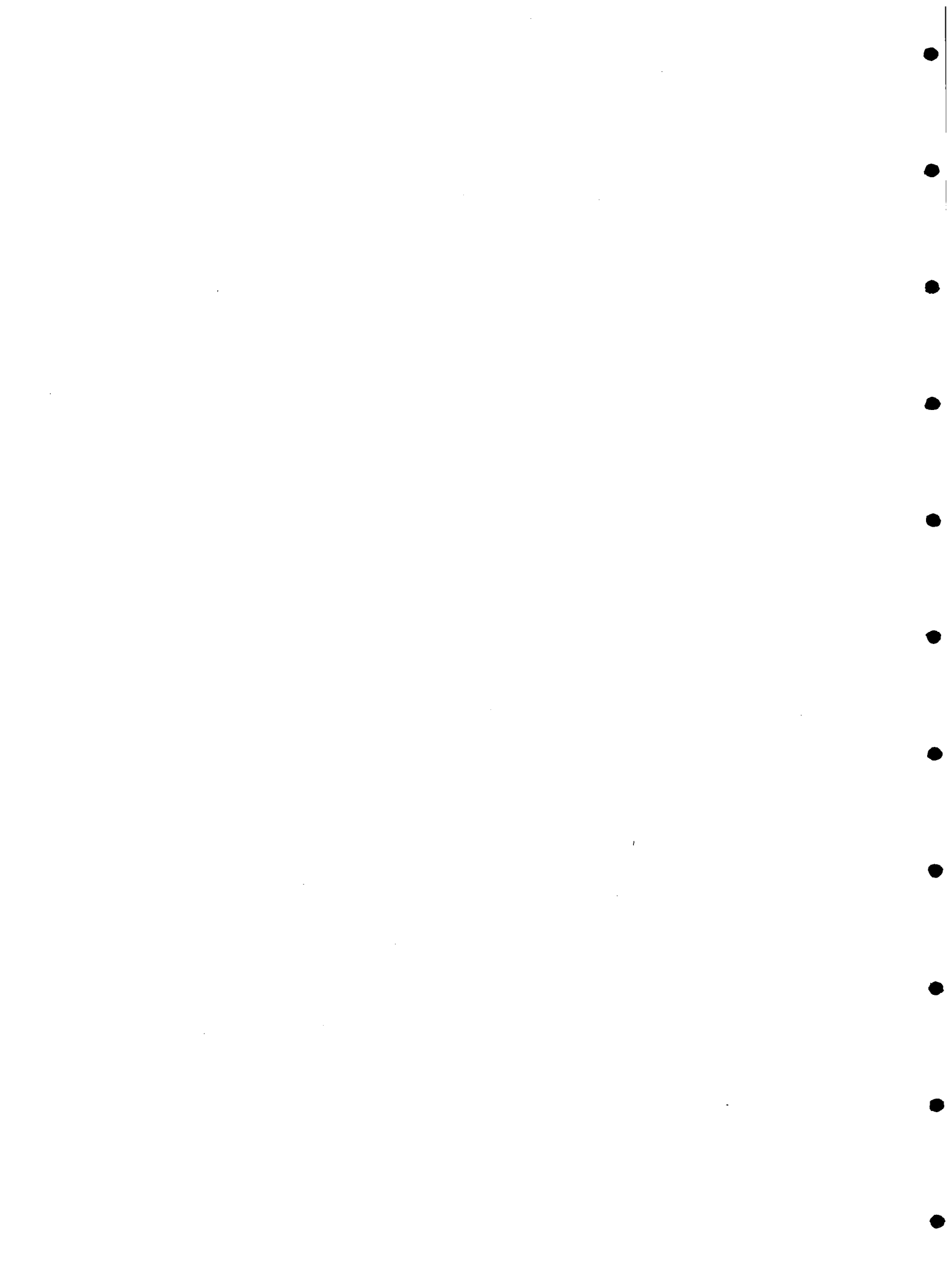
of time. Without actually disturbing the system under investigation, simulation examines the effects of various alternatives. In our model, for example, we are able to vary the number of judges available and alter organizational structure quickly without affecting the personalities involved. An obvious limitation of the model is its inability to assess the impact of human factors, such as response to environmental change, on the system under study.

A simplified representation of the court scheduling system

Court scheduling is the process of planning for and ensuring that all the participants in cases to be heard will assemble at the proper times and places for events required for adjudication, within the constraints of the court's resources, the availability of the participants, and the requirements of due process. This definition suggests that a court scheduling system has three components--calendaring, management, and information processing.

Day-to-day operations are encompassed by the calendaring component. The primary functions associated with this component are setting events, dates and times; controlling scheduling conflicts of and appearances by participants; notifying participants; making calendar adjustments; and monitoring the calendar.

The management component involves the following three functions: establishing court objectives, policies, and priorities; planning scheduling operations; and evaluating system effectiveness. The information processing component pertains to satisfying the information needs of the other two components.

The above list of functions illustrates the complexity of a court scheduling system. By design, our model does not completely reflect the complexity of the whole system. The important differences deserve mention. In the model, the calendaring component was essentially predetermined and fixed. It was assumed that the number of events set for a period of time was based on expected event duration and judge availability; that all participants were notified of future appearances, controlling for conflicts; and that any last-minute schedule adjustments were implicitly taken into account in the equation for setting events. No preference or choice of objectives was assumed in constructing the model. We made no judgments about the relative merits or desirability of specific objectives.

Event weighting and other predictive tools were combined into two measures of event length. Any combination of case mix and scheduling factors can be adequately represented by the mean and standard deviation of the distribution of event duration.

On the basis of case, system, and event characteristics, a court scheduling system, ideally, would predict event duration for a number of events (each from a specific duration distribution) awaiting litigation. A scheduling algorithm would determine the best schedule of the events within resource constraints. Our model does not perform this operation directly; rather a greatly simplified procedure is employed.

In the model, the standard deviation serves to bound the "actual" event length generated by the simulation. Given an event duration distribution, we always predict the length of the event to be the mean of the distribution. By setting the standard deviation, we define a range of values for the "actual" length. Reducing the standard deviation tightens this range, and yields more precise estimates. Thus, different predictability levels are simulated by varying the standard deviation.

The use of this method has several consequences. First, using only one event length distribution reduces the variability of the total event mix. Variation among different event distributions is removed under this procedure. Secondly, it must be recognized that the prediction of event duration does not affect actual event length; that is, the length of an event remains the same regardless of its predicted value. Thirdly, we are not explicitly measuring the impact of additional information on predicting event length. As a result, the improvements in performance recorded by the simulation are only an estimate of the improvements which would be attained through better prediction. This method is based on restricting event duration values by setting the standard deviation. Thus, improvements seen by our model (which reduces the variability of the distribution) may be greater than would be observed by strictly using information about the event distribution.

Our model is, therefore, a simplified version of the system; some of the calendaring and management functions were dealt with implicitly or taken as givens. Despite its simplicity, this model can be used to satisfactorily answer the two questions of interest: (1) Is additional benefit derived by more precise event length predictions? (2) How is system performance influenced by alternative case assignment systems and calendar modes?

Primary elements of the model

Each experiment consisted of an expected event duration, a measure of uncertainty of event duration, and a resource (judge) availability. For each experiment, several measures of performance were computed. An essential model assumption was that events and judges were to be treated as homogeneous units. This greatly simplifies the processing and can be justified on the following grounds. By permitting only one event time, we are required to make no assumptions about case mix or scheduling policy. Any desired case mix can be analyzed by choosing the appropriate values of the average duration and its variability. Similar reasoning holds for viewing judges as homogeneous entities. Constant judicial resource availability was assumed. This allows us to schedule the same number of events daily.

Selected mean event duration values are two hours, three hours, six hours, and twelve hours. The standard deviation

acted as the measure of variability, or the degree of uncertainty, of event duration. Three levels of precision are considered: a standard deviation equal to the mean, equal to one and one-half times the mean, and equal to twice the mean. The underlying distribution of event duration was assumed to be hyperexponential. Previous analysis of data on the Federal Courts collected by the Federal Judicial Center, from which histograms were constructed and descriptive statistics calculated, supports this selection of the hyperexponential distribution.

Hyperexponential distribution models are characterized by a standard deviation as great as the mean of the distribution. When the mean and standard deviation are equal, the exponential distribution results. When the standard deviation exceeds the mean, the distribution represents data where high or low values are likely to occur. In some instances, the hyperexponential distribution may reflect bimodel data. This is appealing in that court events may span either short or long periods.

For categories in which the mean was assumed to be twelve hours, a uniform distribution model, in addition to a hyperexponential model, was constructed. As a half-width of the interval of permissible values, we used six, nine, and twelve hours. Events are restricted to between six and eighteen hours in the case where the half-width is six hours, and so forth. The use of the uniform distribution resulted from concern over the range

of values within a specified range. For each mean/standard-deviation combination, we varied the number of judges available to hear events.

One aspect of court organization is the manner in which events are assigned to judges. Both master calendar and individual case assignment organizations were considered. Under a master calendar, each event is assigned as soon as a judge becomes available, regardless of which judge heard previous events for that case. Conversely, under the individual calendar, all events of a case are heard by one judge. The respective processing flow for each assignment method is depicted in Exhibit I-1.

A second aspect of court organization, calendar mode, pertains to how event dates are selected. Two modes were examined--date-certain (day-certain) and continuous. In a date-certain mode, a specific appearance date is chosen in advance. On the other hand, in a continuous mode, no exact date is specified; the date of an event is determined by how fast other events ahead of it in the queue are completed.

The determination of the number of cases scheduled is based on judge availability and expected event duration. Judge availability consists of the number of judge-hours available per unit of observation, based on six-hour judge-days. This may be expressed as follows:

$$\text{Number of Events Scheduled} = \frac{6 \times \text{Number of Judges Available} \times \text{Number of Days in Time Frame}}{\text{Expected Event Duration}}$$
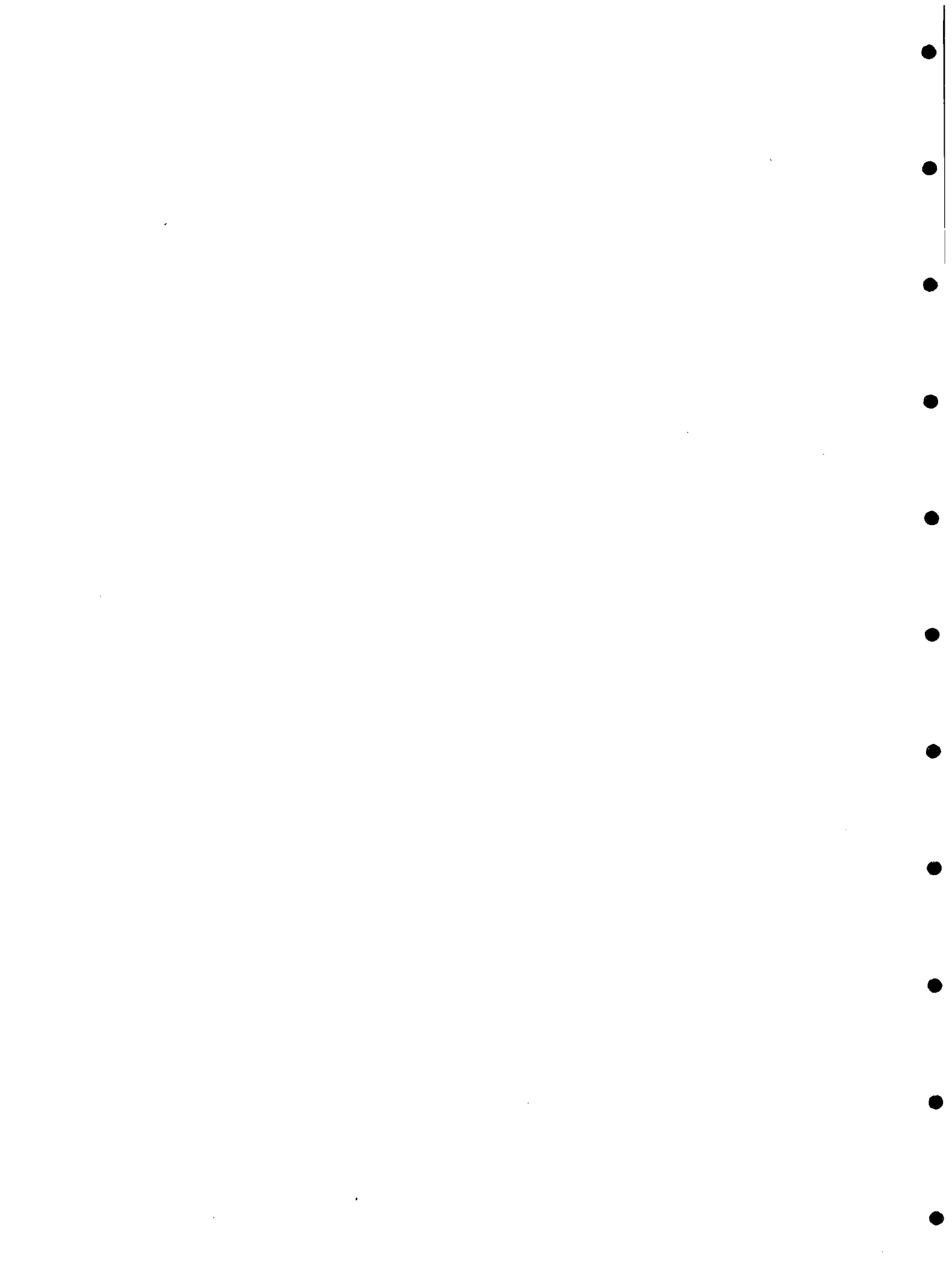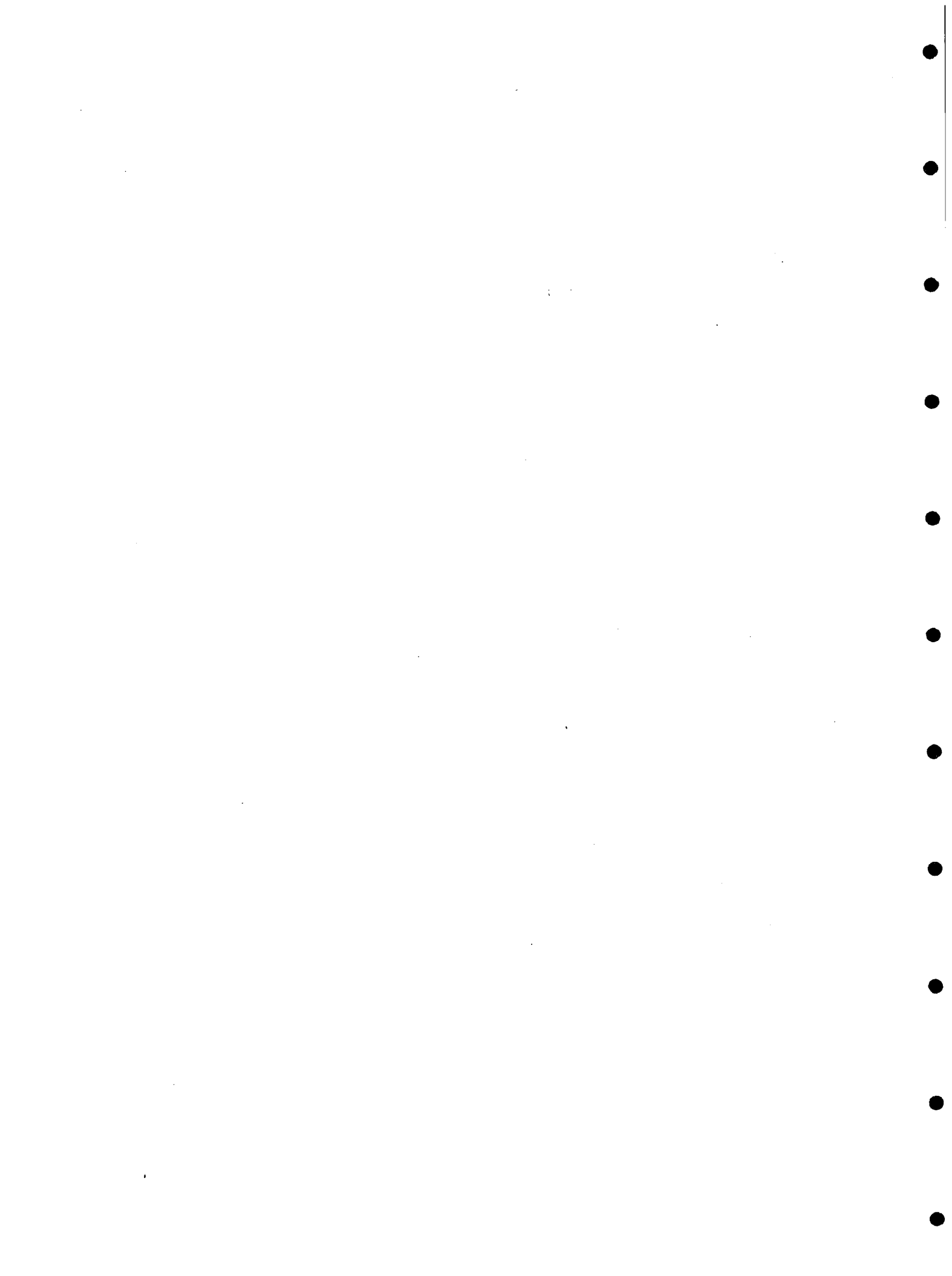
EXHIBIT I-1
CASE ASSIGNMENT SYSTEMS

Individual Calendar

Events   Judges

Master Calendar

Events   Judges
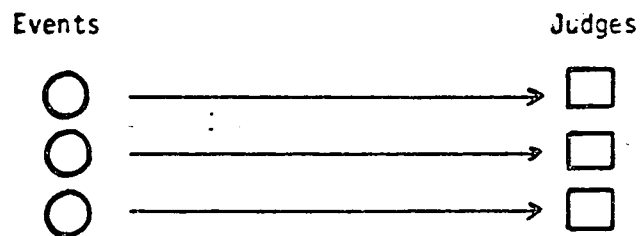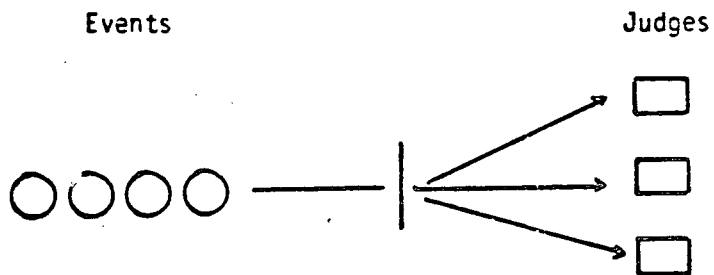
A one-day time frame is employed in day-certain mode, while a five-day week serves as the unit of observation in the continuous mode. No fallout ratio is included in the equation. For simplicity, it is assumed that events which fall out are captured in setting the distributional parameters. To include a fallout ratio, the equation would be modified by including a setting factor.

It is assumed that judges work a six-hour day, except: (1) If a judge completes an event during his sixth and last hour, he will not initiate another proceeding, but will leave for the day; (2) If at the end of the sixth hour, a judge notes that the current case can be resolved within the next hour, he will finish that case before leaving. These appear to be reasonable assumptions of judge behavior. Thus, the judge-day, defined as the amount of time a judge spends on the bench, is restricted to be between five and seven hours. Furthermore, it is assumed that the number of judges available remained constant during the experiment.

Events scheduled for a particular day (or week, in the continuous mode) and not heard are labeled as "overscheduled" and are rescheduled for another time. Overscheduled cases are not tracked. Cases in progress at the end of the day are classified as "carried over" and are continued the next day.

A one-hour time lag separates consecutive events heard by a judge in continuous calendar mode processing. This time allows for notification and appearance of the parties. The date-certain calendar mode does not involve a time lag.

Statistical measures of performance were computed for a 200 five-day week period after a five week start-up time. The following measures of predictive quality were monitored: judge utilization, waiting time, number of cases completed, number of cases carried over, and number of cases overscheduled.

Judge utilization is defined as the percentage of time a judge is busy hearing cases during his six-hour day. Two measures are calculated. The first measure includes any overtime, or seventh-hour, work a judge may accumulate; the second does not. Waiting time represents the wait an event encountered before being heard. One measure of waiting time considers all events, even those with zero waiting times. The other measure includes only positive waiting times. In the continuous calendar mode, all events incur zero waiting times. Judges, however, incur an hour's wait between events. The number of events finished, the number of events carried over, and the number of events overscheduled refer to the status of the event at the end of the day. These five performance measures are used to compare the various mean/standard deviation combinations.
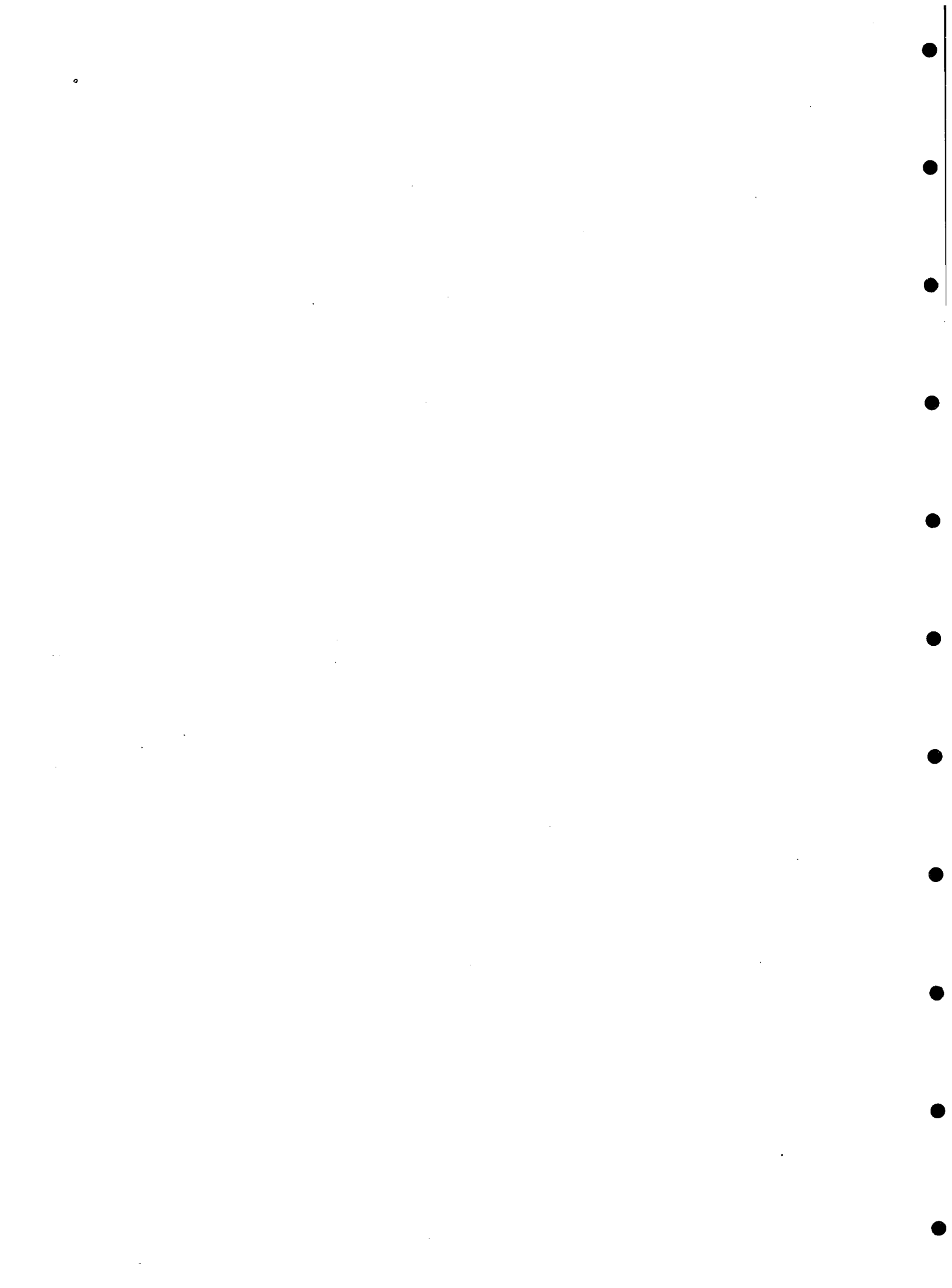
Findings Yielded by the Model

The use of the simulation model demonstrates the importance of precise estimates of event duration for court scheduling efficiency and effectiveness. The traditional approach to event weighting has been to assign weights based on case type. A Federal Judicial Center (FJC)-funded study showed that case type is not a satisfactory predictor of case length due to a high level of variation within case type categories. The variation within categories is due to differences in the characteristics of cases within the categories. We are attempting to show the benefits of any new procedure with reduced variability, and hence more accurate predictions of event duration.

Generally, simulation results confirm prior intuition about the positive influence of additional information. Not too surprisingly, the more certain the estimates of event duration, the more efficient the court scheduling system. For each performance measure noted earlier, an explanation of the empirical findings and the magnitude of the differences among the three precision levels is noted.

Four expected event durations are considered: two, three, six, and twelve hours. For each, three levels of variability were modeled. A date-certain master calendar organizational structure is assumed, though the individual calendar is equivalent to a one-judge master calendar.

I-11

Judge utilization

Exhibits I-2 through I-11 show the impact of variability changes on judge utilization. By reducing the uncertainty of event length, system efficiency, as measured by judge utilization, increases. If case duration were known perfectly, events could be scheduled to utilize judge time completely. With degrees of uncertainty, however, some days have too few events scheduled, resulting in idle time for judges. Thus, the results shown in these exhibits are not startling.

Exhibit I-12, which shows judge utilization rates using event-duration measure 1* when different numbers of judges are available, illustrates the gains in system efficiency by reducing uncertainty. For instance, with one judge available and an expected event duration of three hours, system efficiency declines from 79 percent to 72 percent as the standard deviation changes from three to six hours. This exhibit also allows comparison of the individual calendar with the master calendar. Within a mean-standard deviation level, as the number of judges available increases, so does system efficiency. The move from the individual calendar to the six-judge master calendar shows the most dramatic change in utilization rate. For example, assuming a mean duration of two hours with a standard

---

*As noted earlier, two measures of judge utilization were used. Measure 1 includes any overtime, or seventh-hour, work by judges; measure 2 does not.

deviation of two hours, the individual calendar yields 81 percent utilization, compared to 92 percent for the six-judge arrangement. At 93 percent utilization, the ten-judge master calendar does not perform appreciably better than the six-judge calendar. Analogous results are found for the other mean/standard deviation combinations.

Exhibit I-12 illustrates two additional findings. The first concerns the impact of judge availability on the model; as the number of judges increases, the effect of the variability measures decreases. For instance, in the individual calendar with a mean event duration of two hours, increasing the precision level from four hours to two hours causes a 7 percentage point increase in utilization, from 74 percent to 81 percent. Under a ten-judge master calendar, the corresponding precision increase raises efficiency only 3 percentage points.

The second finding is similar: additional judicial resources may often offset uncertainty of event duration. A master calendar with a relatively higher variability of event lengths is often more efficient than an individual calendar. Compare, for a mean duration of two hours, a one-judge calendar with a standard deviation of two hours, and a six-judge master calendar with a precision level of four hours. We note that the master calendar with more uncertainty operates at a higher level of efficiency, 88 percent compared to 81 percent. These patterns occur repeatedly in the analysis.
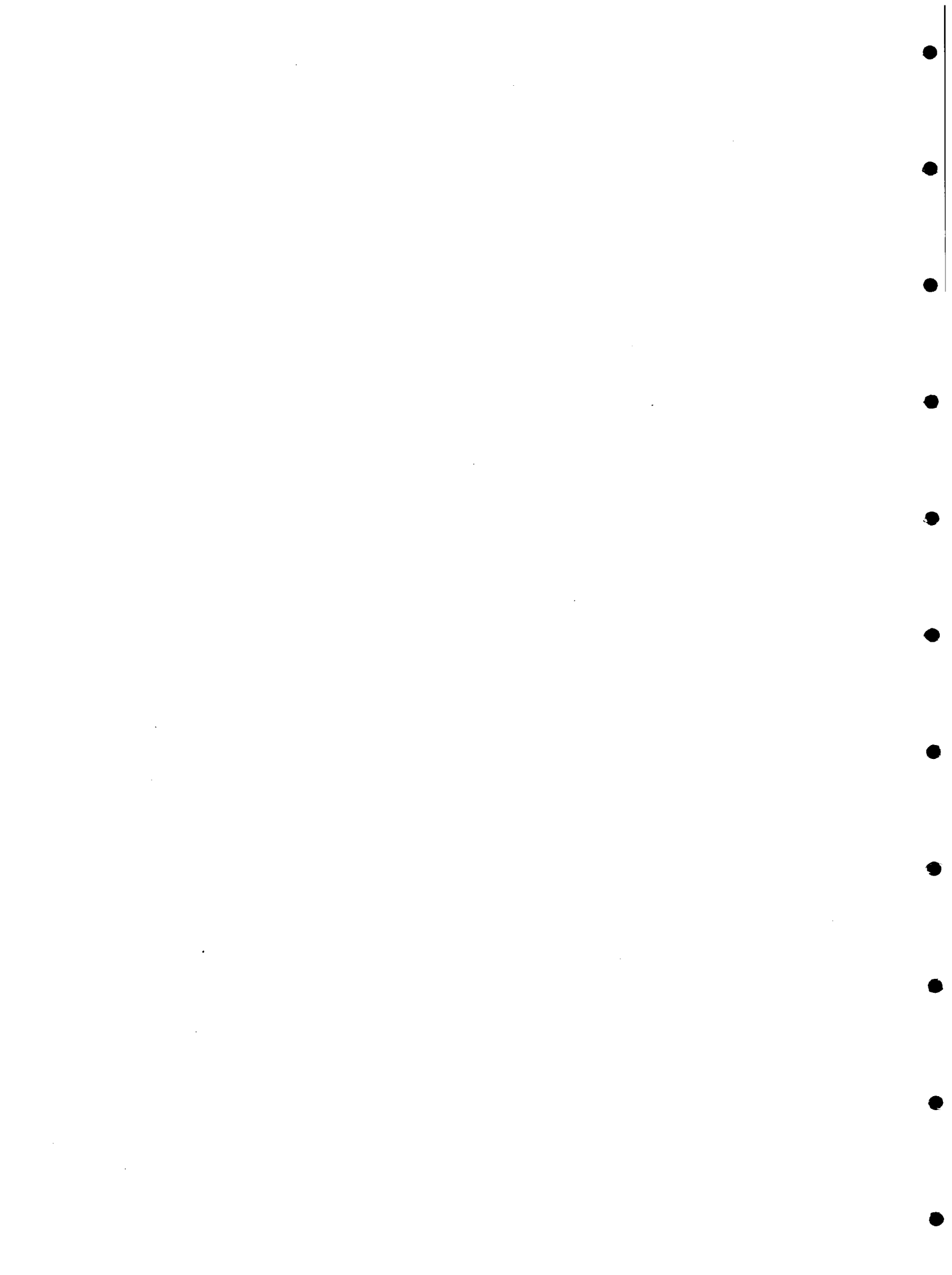
JUDGE UTILIZATION (MEASURE 1)   MEAN = 2 HOURS   MASTER CALENDAR   DAY CERTAIN - EXHIBIT I-2

* Mean = Standard Deviation
+ Mean = 1.5 Standard Deviation
. Mean = 2.0 Standard Deviation

NUMBER OF JUDGES AVAILABLE
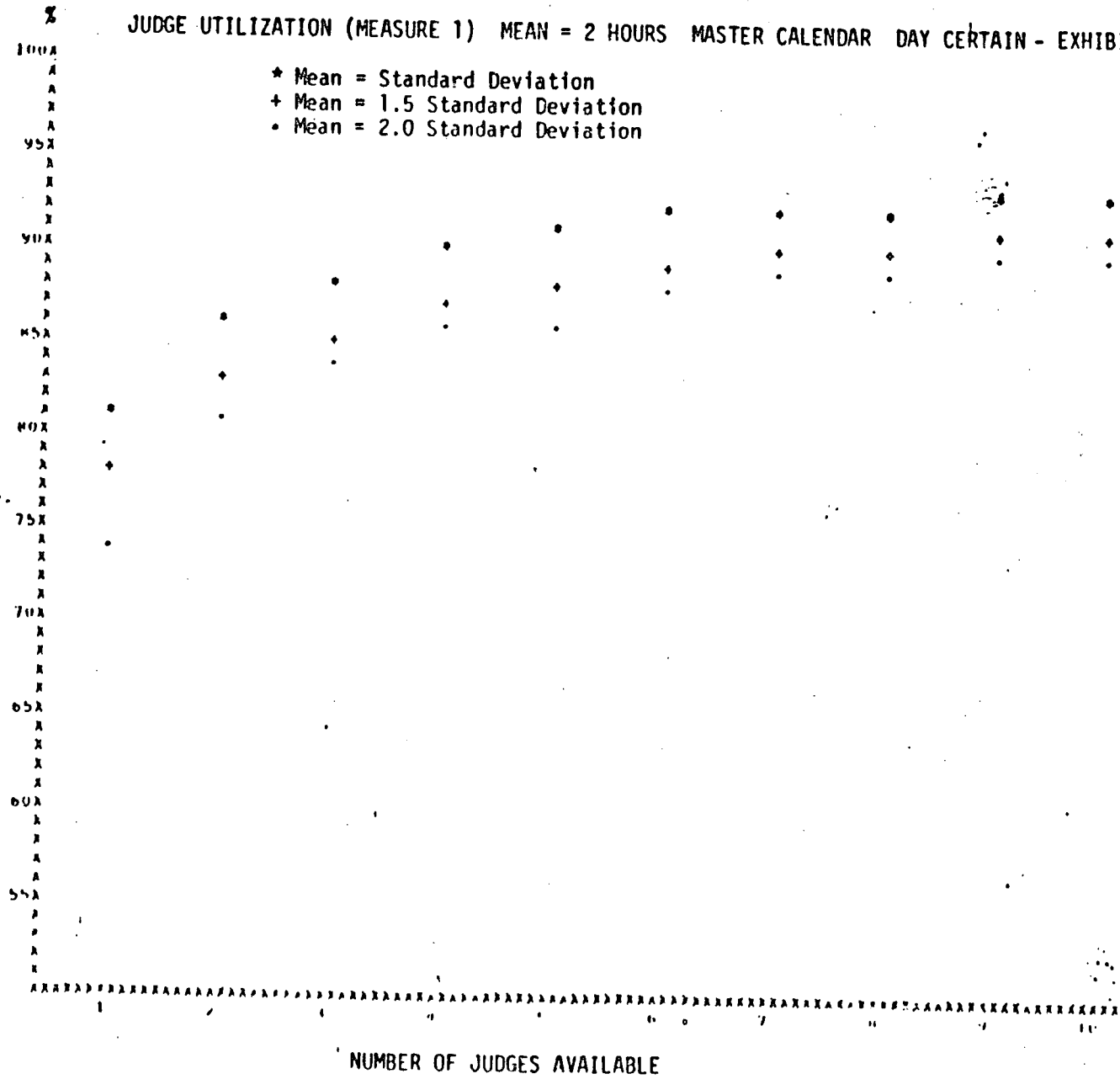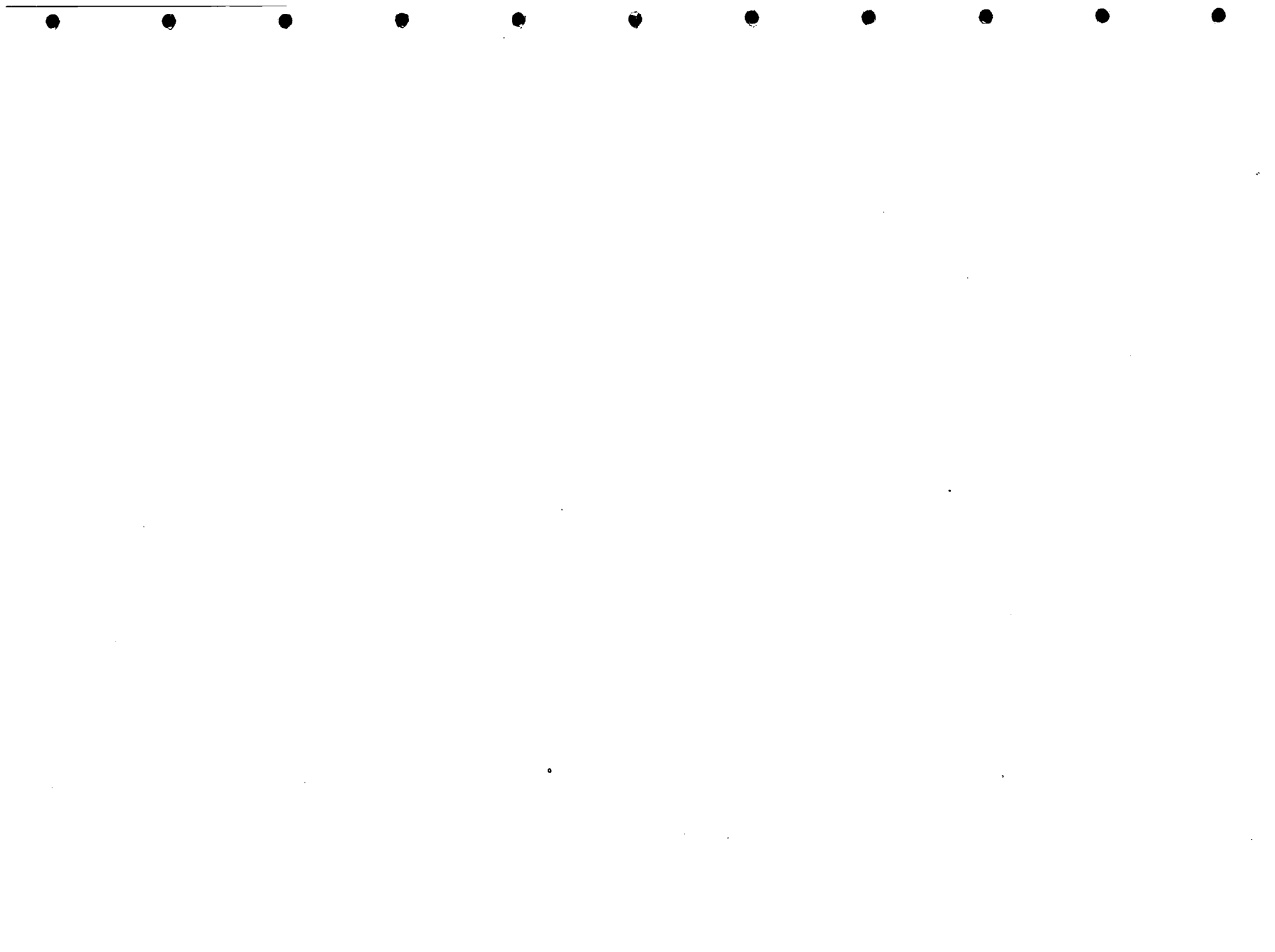
JUDGE UTILIZATION (MEASURE 2)   MEAN = 2 HOURS   MASTER CALENDAR DAY CERTAIN - EXHIBIT I-3

* Mean = Standard Deviation
+ Mean = 1.5 Standard Deviation
• Mean = 2.0 Standard Deviation

NUMBER OF JUDGES AVAILABLE

I-15

JUDGE UTILIZATION (MEASURE 1)   MEAN = 3 HOURS   MASTER CALENDAR   DAY CERTAIN - EXHIBIT I-4

* Mean = Standard Deviation
+ Mean = 1.5 Standard Deviation
• Mean = 2.0 Standard Deviation

NUMBER OF JUDGES AVAILABLE

%

* Mean = Standard Deviation
+ Mean = 1.5 Standard Deviation
⊙ Mean = 2.0 Standard Deviation

I-17
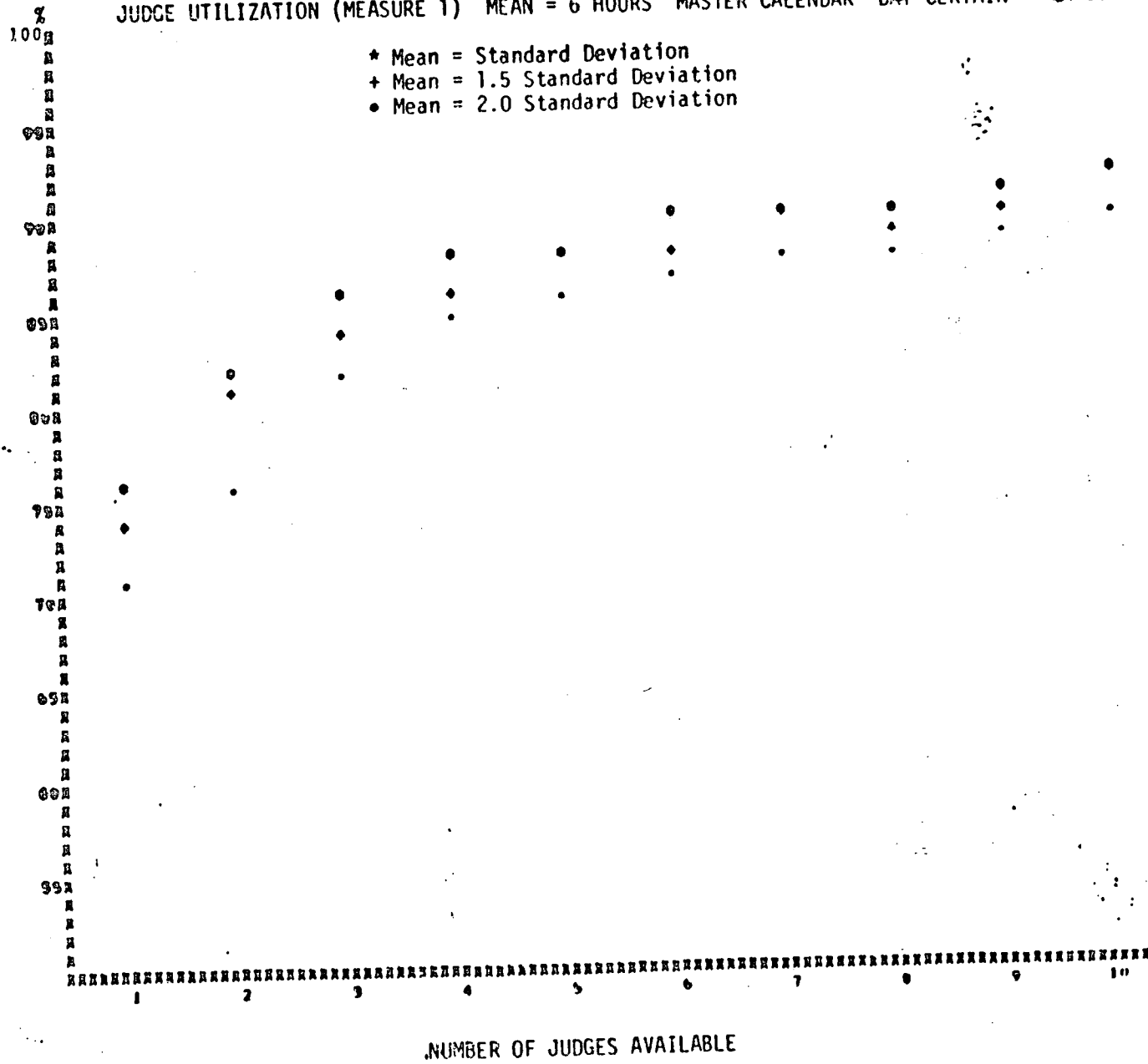
NUMBER OF JUDGES AVAILABLE

JUDGE UTILIZATION (MEASURE 1)   MEAN = 6 HOURS   MASTER CALENDAR DAY CERTAIN - EXHIBIT I-6

```
 %
100
                    * Mean = Standard Deviation
                    + Mean = 1.5 Standard Deviation
                    • Mean = 2.0 Standard Deviation
```

NUMBER OF JUDGES AVAILABLE

* Mean = Standard Deviation
+ Mean = 1.5 Standard Deviation
◇ Mean = 2.0 Standard Deviation

NUMBER OF JUDGES AVAILABLE

I-19

*Mean = Standard Deviation
+Mean = 1.5 Standard Deviation
⊕Mean = 2.0 Standard Deviation

100%
95%
90%
85%
80%
75%
70%
65%
60%
55%

I-20
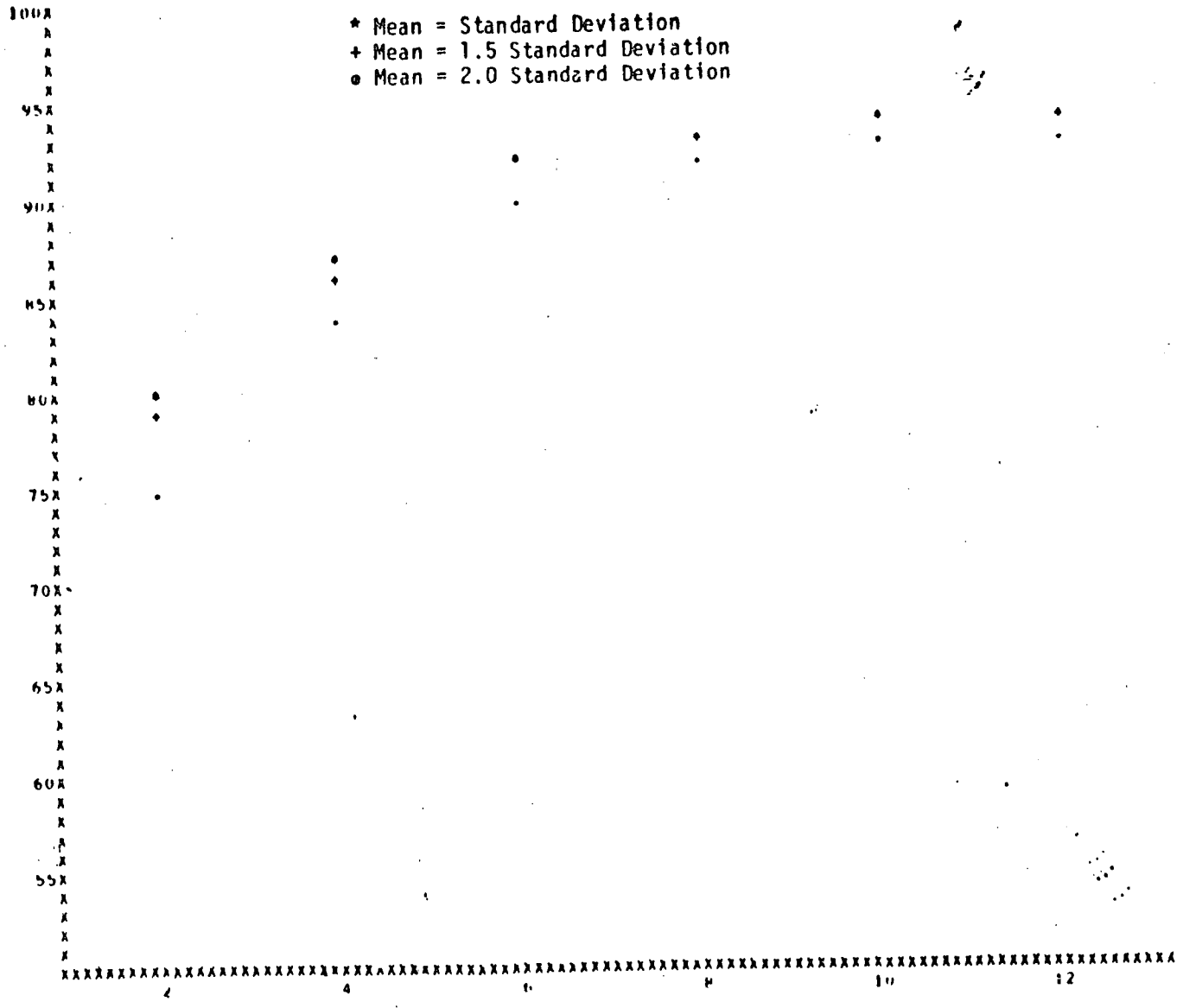
NUMBER OF JUDGES AVAILABLE

JUDGE UTILIZATION (MEASURE 2)   MEAN = 12 HOURS   MASTER CALENDAR   DAY CERTAIN - EXHIBIT I-9

```
100X
   X        * Mean = Standard Deviation
   X        + Mean = 1.5 Standard Deviation
   X        ● Mean = 2.0 Standard Deviation
   X
 95X
   X
   X
   X
 90X
   X
   X
   X
 85X
   X
   X
   X
 80X
   X
   X
   X
   X
 75X
   X
   X
   X
 70X
   X
   X
   X
   X
 65X
   X
   X
   X
 60X
   X
   X
   X
 55X
   X
   X
   X
   X
   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
           2            4            6            8            10           12
```

NUMBER OF JUDGES AVAILABLE

JUDGE UTILIZATION (MEASURE 1)   MEAN = 12 HOURS   MASTER CALENDAR   DAY CERTAIN - EXHIBIT I-10
UNIFORM DISTRIBUTION

* Mean = Standard Deviation
+ Mean = 1.5 Standard Deviation
● Mean = 2.0 Standard Deviation

100

95

90

85

80

75

70

65

60

55

NUMBER OF JUDGES AVAILABLE

* Mean = Standard Deviation
+ Mean - 1.5 Standard Deviation
⊙ Mean = 2.0 Standard Deviation

I-23

NUMBER OF JUDGES AVAILABLE

EXHIBIT I-12

JUDGE UTILIZATION RATES (MEASURE 1)*

	Number of Judges Available		
	1	6	10
MEAN = 2 HOURS			
$\sigma = 2$	.81	.92	.93
$\sigma = 3$	.78	.89	.91
$\sigma = 4$	.74	.88	.90
MEAN = 3 HOURS			
$\sigma = 3$	.79	.91	.93
$\sigma = 4.5$	.76	.89	.91
$\sigma = 6$	.72	.88	.90
MEAN = 6 HOURS			
$\sigma = 6$	.76	.90	.92
$\sigma = 9$	.74	.88	.90
$\sigma = 12$	.71	.87	.90

	Number of Judges Available		
	2	6	12
MEAN = 12 HOURS **(HYPEREXPONENTIAL DISTRIBUTION)**			
$\sigma = 12$	.80	.89	.91
$\sigma = 18$	.79	.87	.90
$\sigma = 24$	.75	.87	.90
MEAN = 12 HOURS **(UNIFORM DISTRIBUTION)**			
**Range = 12	.91	.95	.96
Range = 18	.88	.93	.95
Range = 24	.85	.91	.94

* Percentage of busy judge time; average over 1000 6-hour days per judge.

** Ranges of 12, 18, and 24 hours correspond to standard deviations of 3.464, 5.196, and 6.928 hours respectively.

Waiting time

Exhibits I-13 through I-16 depict expected waiting time for the various mean/standard deviation/judge-availability combinations. These figures show only a nominal effect due to the variability components of the model. Apparently significant, however, is the contrast between the individual and master calendars, which is highlighted in Exhibit I-17, where measures for several judge-availability levels are given. Again, the six-judge master calendar functions better than the individual calendar, and the ten-judge calendar offers only a marginal improvement over the six-judge calendar.

Consider, for example, events with a mean duration and standard deviation each of three hours. Using measure 2,* the expected wait under the individual calendar is 3.39 hours. The average waiting times under the six-judge and ten-judge calendars are 2.73 hours and 2.67 hours, respectively. Other mean/standard deviation combinations show similar trends, and the illustrations for measure 1 suggest the same conclusions. These results are easy to comprehend. Suppose an event is assigned to Judge A under an individual calendar. Judge A is currently involved with another event, while, at the same time, Judge B is idle. Under a master calendar, Judge B would be available to hear the pending event; under the individual calendar, the pending event would remain in the waiting queue until Judge A is free.

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*As noted earlier, measure 2 includes only those events incurring positive waiting times; measure 1 considers all events, even those with zero waiting time.

I-25
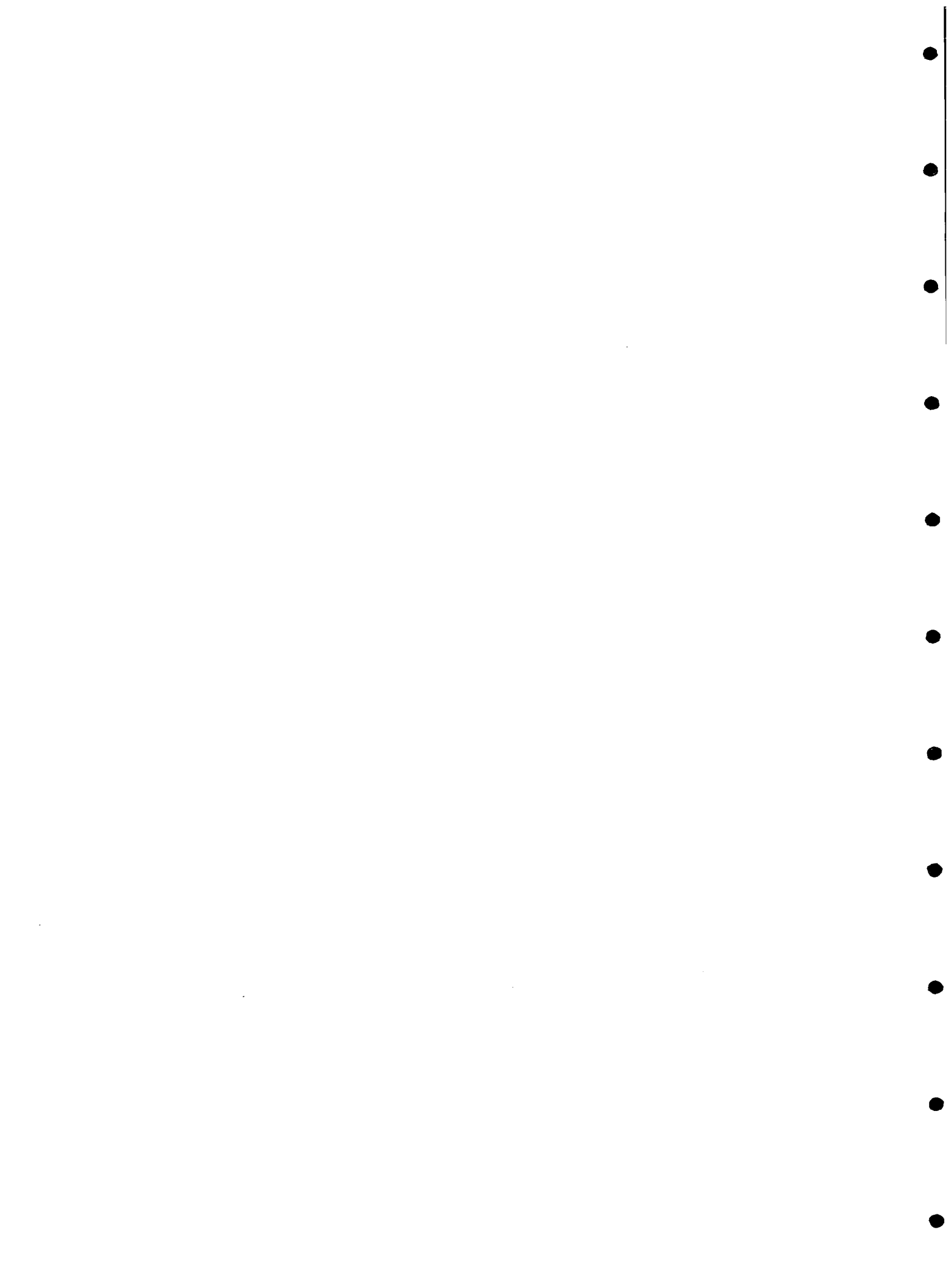
WAITING TIME (MEASURE 1)   MEAN = 2   MASTER CALENDAR   DAY CERTAIN - EXHIBIT I-13

* Mean = Standard Deviation
+ Mean = 1.5 Standard Deviation
• Mean = 2.0 Standard Deviation

NUMBER OF JUDGES AVAILABLE
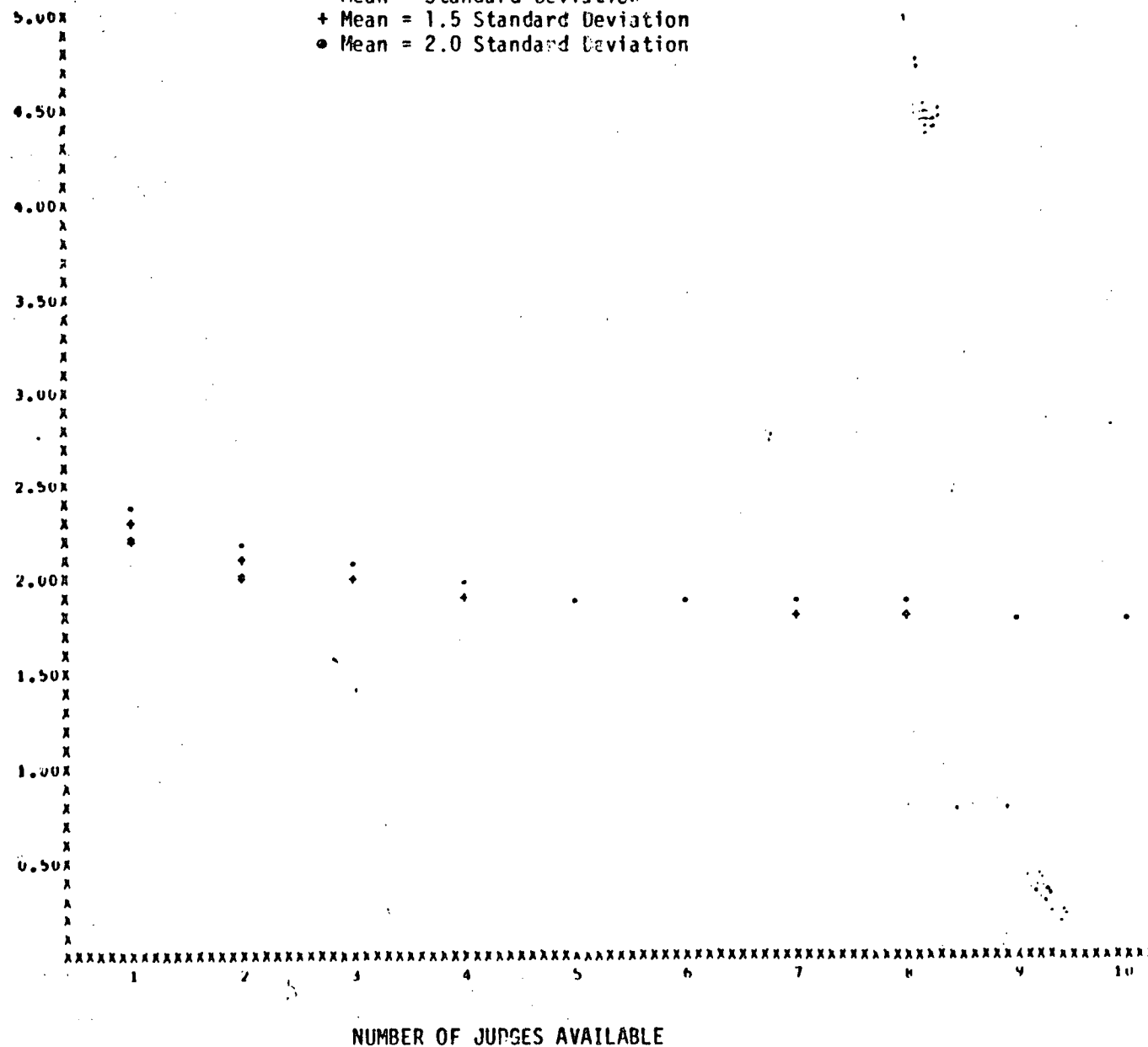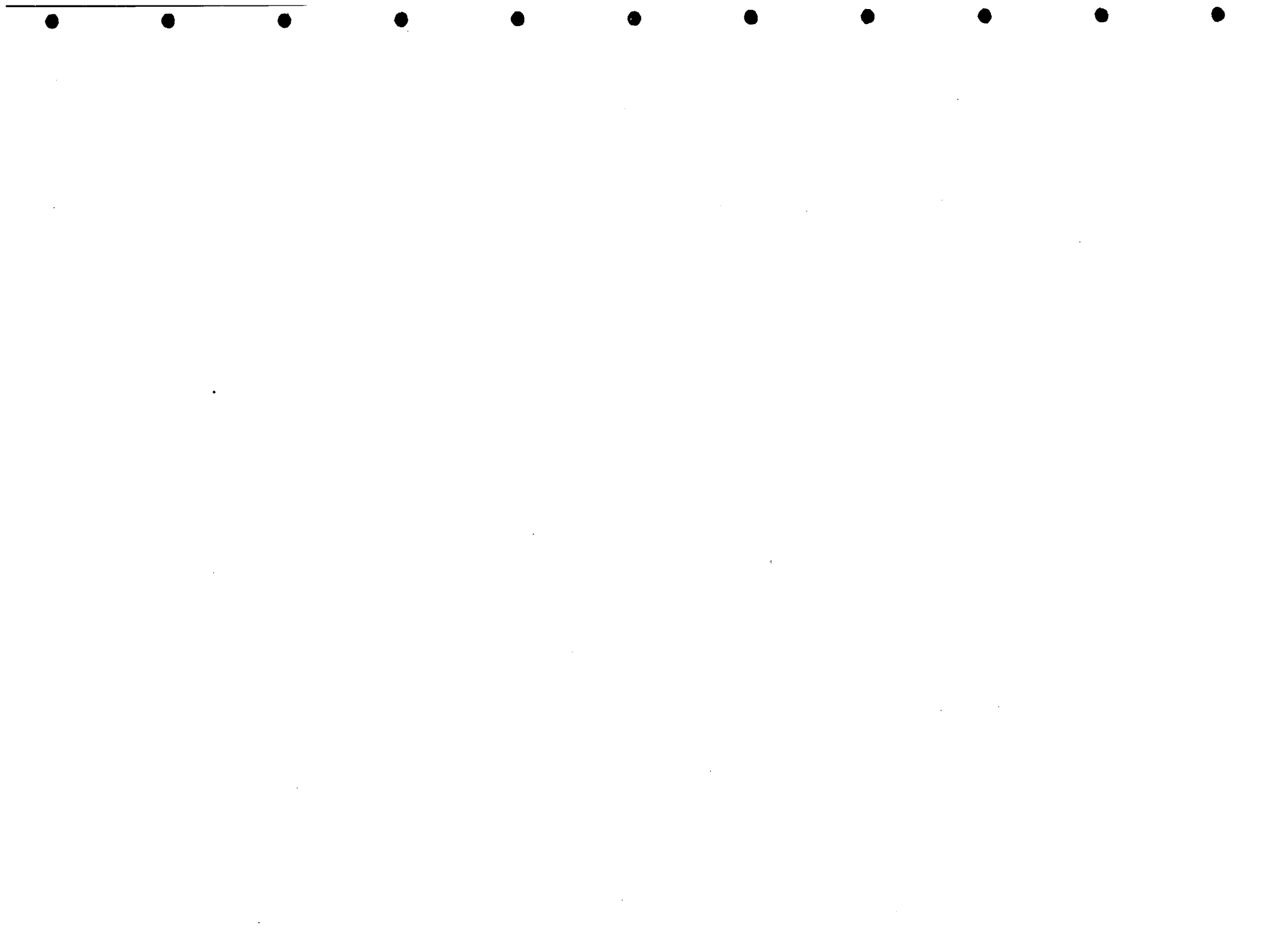
WAITING TIME (MEASURE 2)   MEAN = 2   MASTER CALENDAR   DAY CERTAIN - EXHIBIT I-14

* Mean = Standard Deviation
+ Mean = 1.5 Standard Deviation
● Mean = 2.0 Standard Deviation

NUMBER OF JUDGES AVAILABLE

Hours   WAITING TIME (MEASURE 1)   MEAN = 3   MASTER CALENDAR   DAY CERTAIN - EXHIBIT I-15

* Mean = Standard Deviation
+ Mean = 1.5 Standard Deviation
o Mean = 2.0 Standard Deviation

5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50

NUMBER OF JUDGES AVAILABLE

WAITING TIME (MEASURE 2)   MEAN = 6   MASTER CALENDAR   DAY CERTAIN - EXHIBIT I-16

Hours

* Mean = Standard Deviation
+ Mean = 1.5 Standard Deviation
• Mean = 2.0 Standard Deviation

NUMBER OF JUDGES AVAILABLE
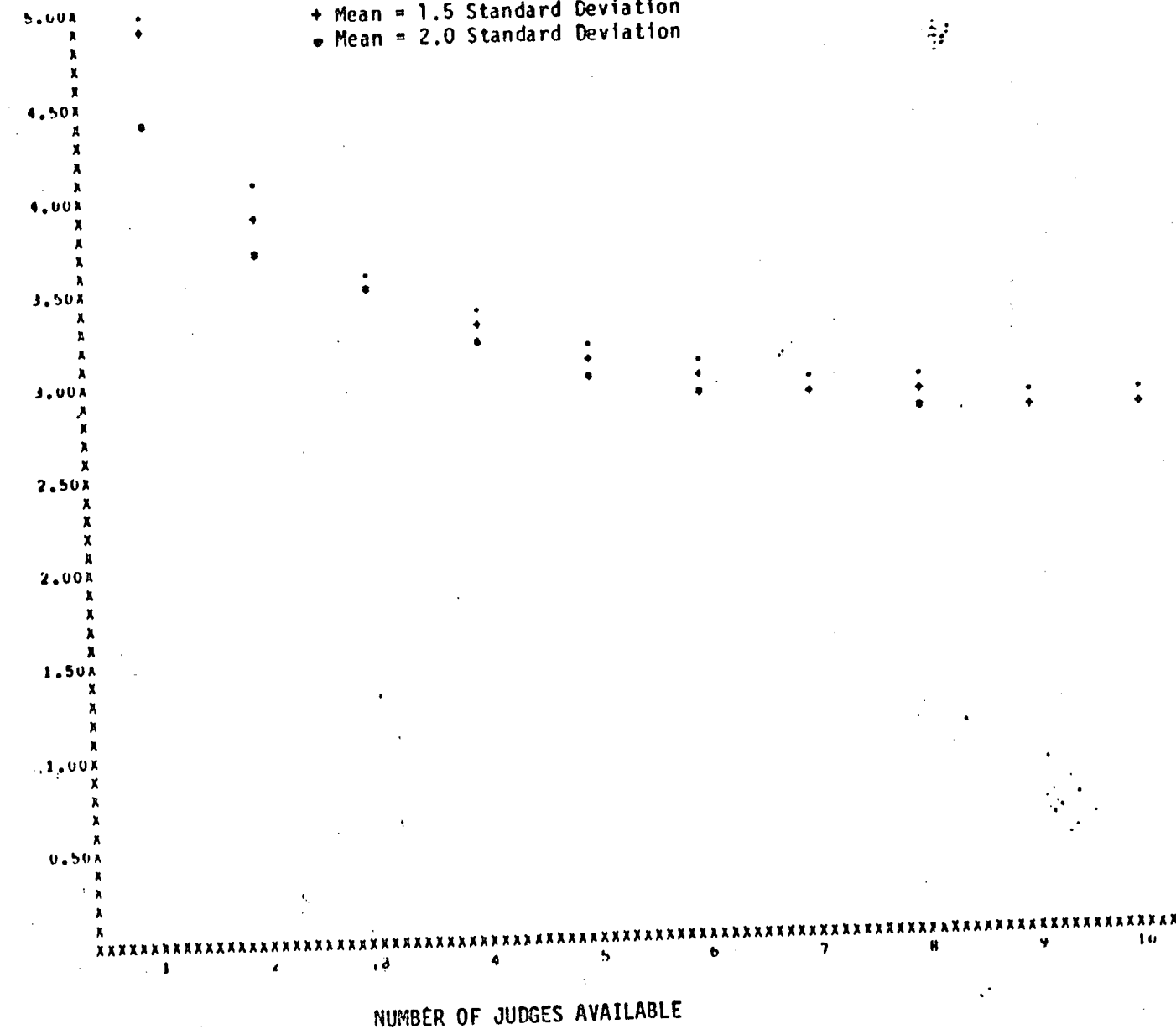
EXHIBIT I-17

WAITING TIME (MEASURE 2)*

	Number of Judges Available		
	1	6	10
MEAN = 2 HOURS			
σ = 2	3.20	2.73	2.70
σ = 3	3.23	2.70	2.62
σ = 4	3.34	2.70	2.65
MEAN = 3 HOURS			
σ = 3	3.39	2.73	2.67
σ = 4.5	3.54	2.73	2.64
σ = 6	3.59	2.80	2.64
MEAN = 6 HOURS			
σ = 6	4.40	2.95	2.80
σ = 9	4.90	2.99	2.81
σ = 12	5.12	3.06	2.88

	Number of Judges Available		
	2	6	12
MEAN = 12 HOURS **(HYPEREXPONENTIAL DISTRIBUTION)**			
σ = 12	4.49	3.55	3.09
σ = 18	4.78	3.67	3.11
σ = 24	4.88	3.77	3.18
MEAN = 12 HOURS **(UNIFORM DISTRIBUTION)**			
**Range = 12	3.51	3.06	2.91
Range = 18	3.69	3.14	3.01
Range = 24	4.07	3.30	3.06

* Average waiting time in hours. Accumulated over 1000 days for events which incurred a positive waiting time.

** Ranges of 12, 18, and 24 correspond to standard deviations of 3.464, 5.196, and 6.928, respectively.
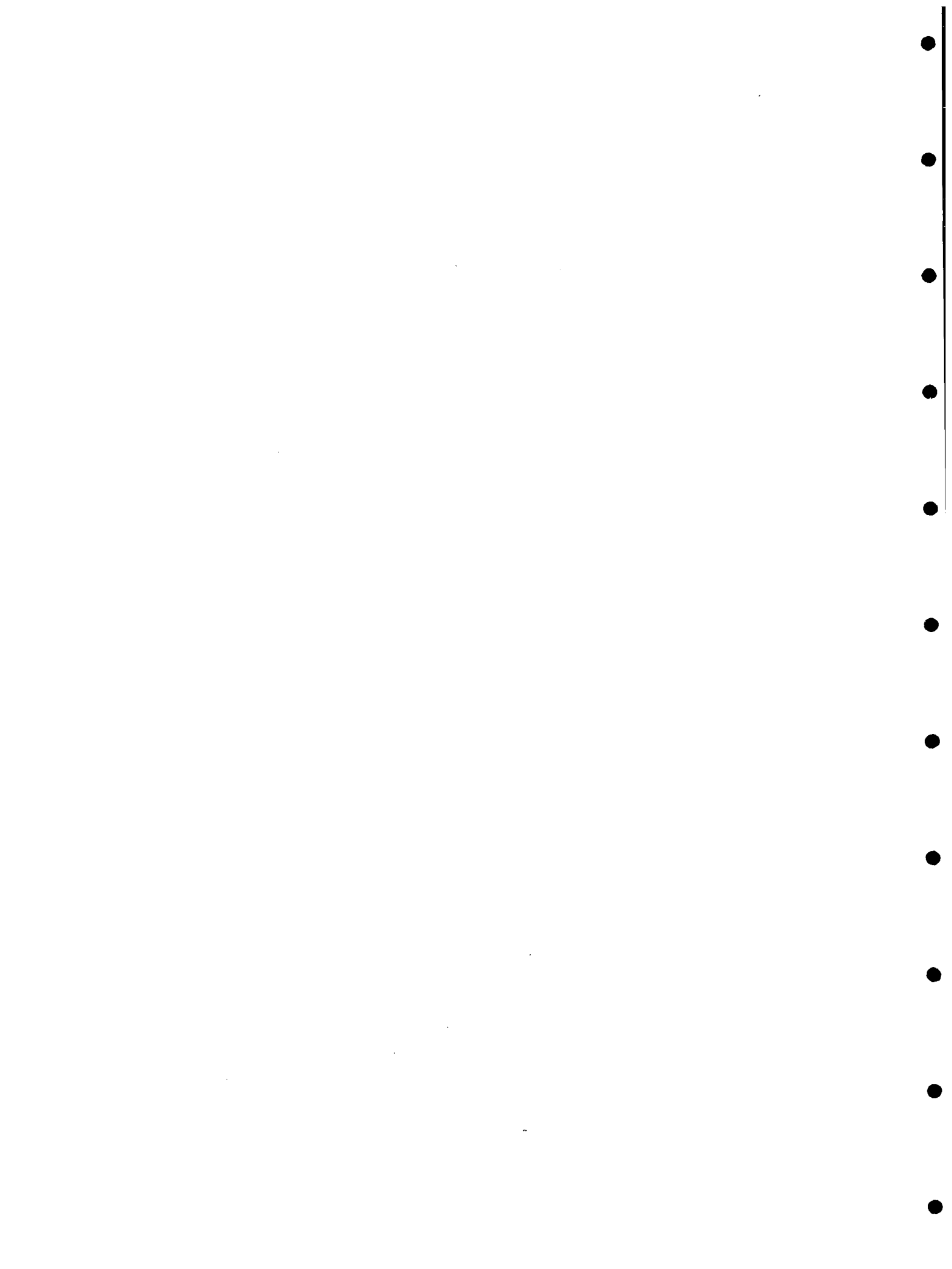
Thus, the performance measures for both judge utilization and waiting time suggest that additional judicial resources used in a master calendar can offset variability of event duration.

Events completed

Exhibits I-18 through I-22 show the percentage of events completed during the day for mean duration/precision/judge-availability levels. Almost uniformly, increased precision in estimating event duration yields a higher proportion of completed events for a duration/availability level. For example, with one judge available and average event length of six hours, 76 percent of the events are completed when the variability of event length is six hours. On the other hand, only 68 percent of the events are completed when the variability is 12 hours. If event durations could be predicted with absolute certainty, all scheduled events could be completed during the day. Without total certainty, however, some events will either be postponed or in progress as the day ends. The more uncertain the predictions, the more likely an event will be unfinished at the day's end.

A comparison of the individual and master calendars in Exhibit I-23 shows the impact of the case assignment system on event completion rates. The six-judge master calendar performs at a much higher level than the individual calendar. Consider the group with a mean time of six hours; the difference in event completion rates between the individual calendar and
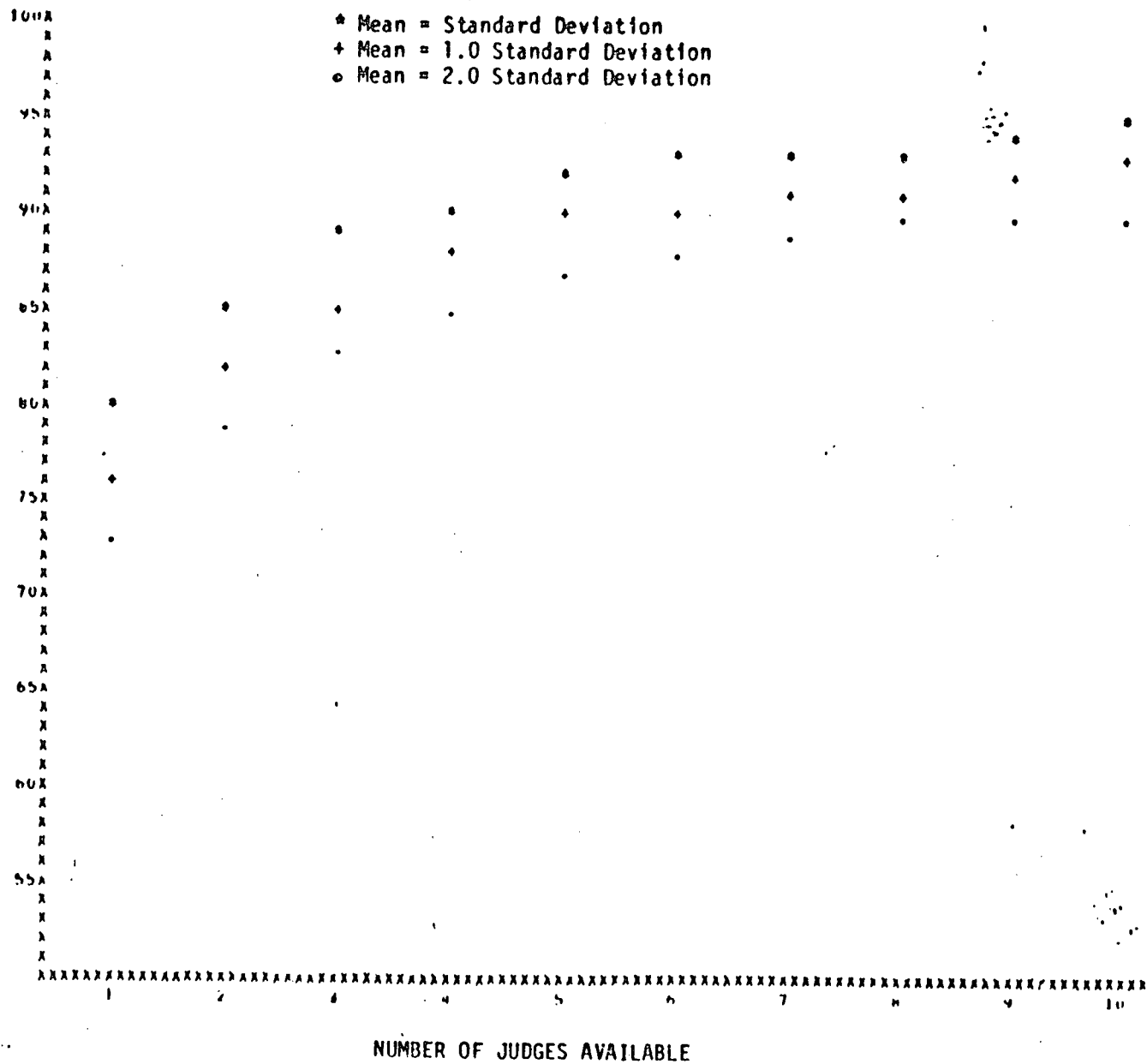
PERCENTAGE OF CASES FINISHED MEAN ± 2 MASTER CALENDAR DAY CERTAIN - EXHIBIT I-18

* Mean = Standard Deviation
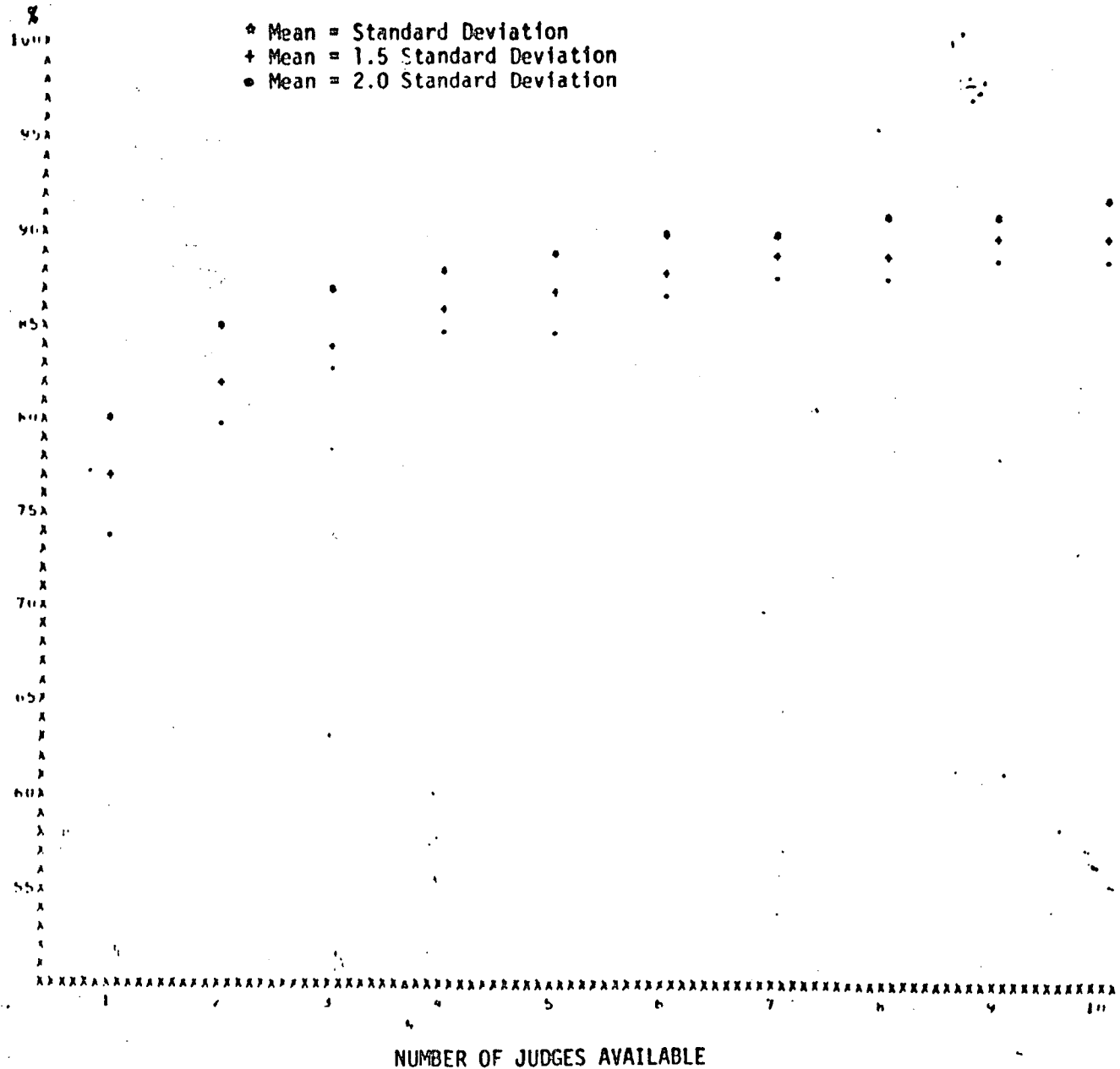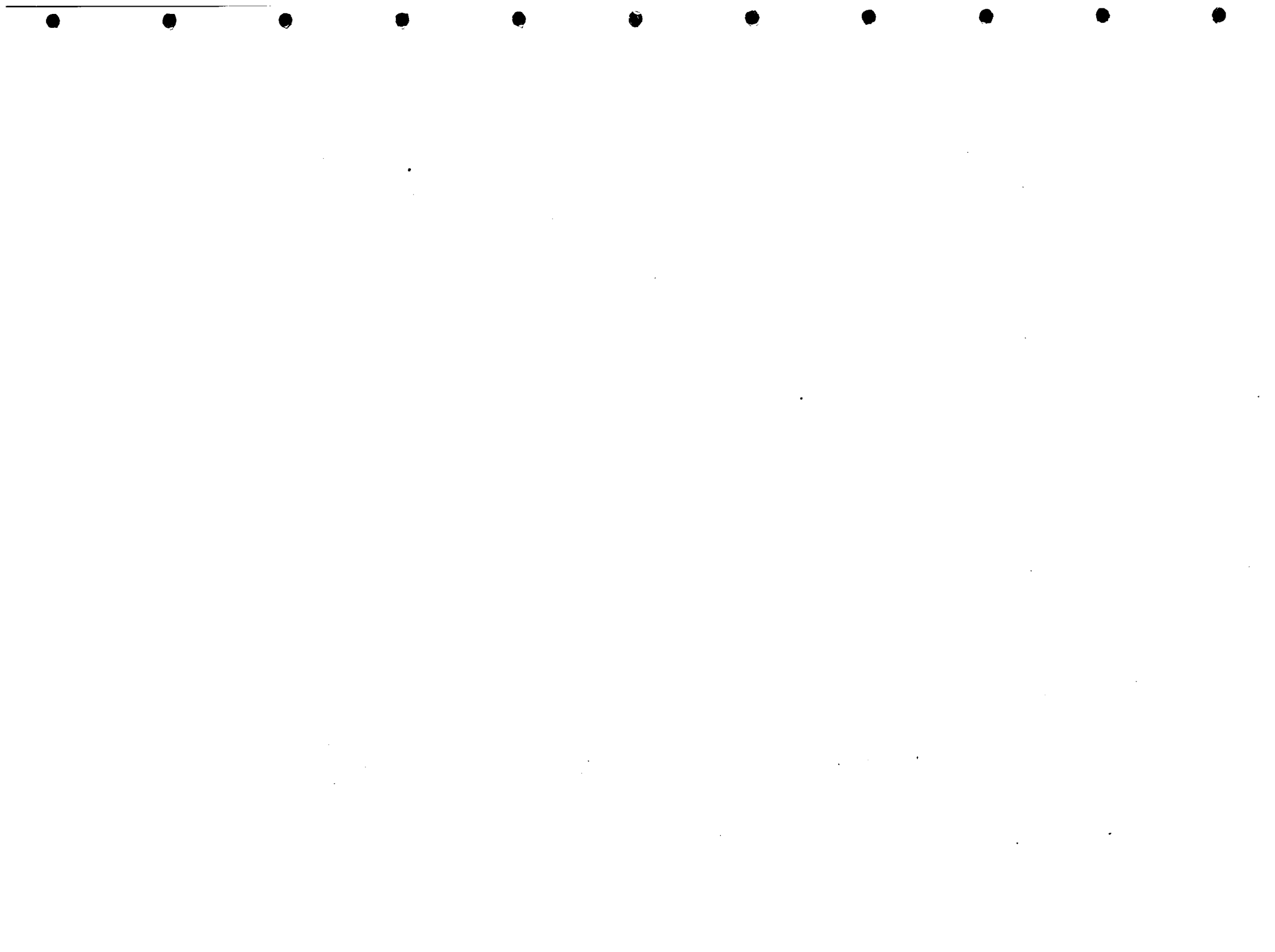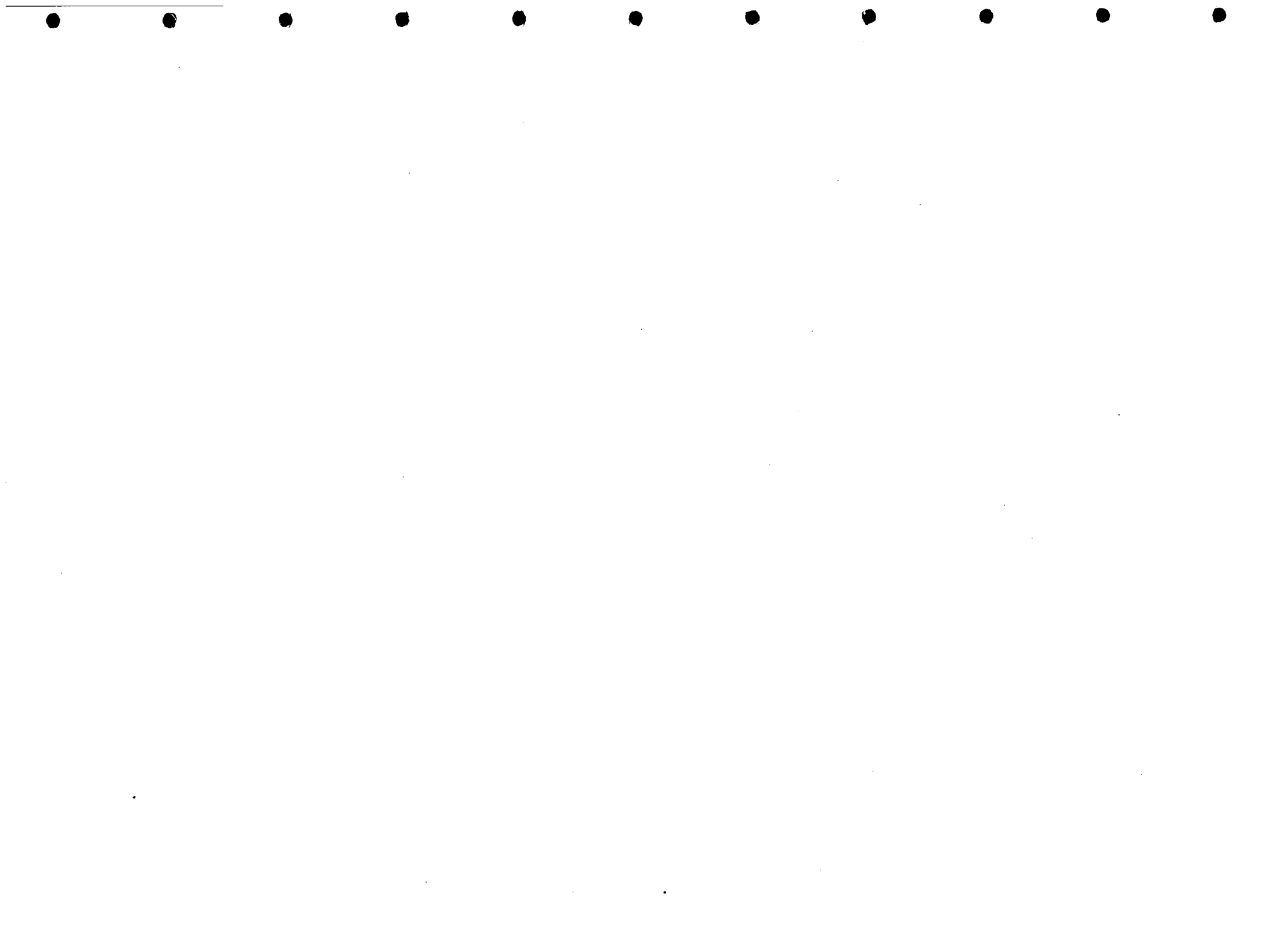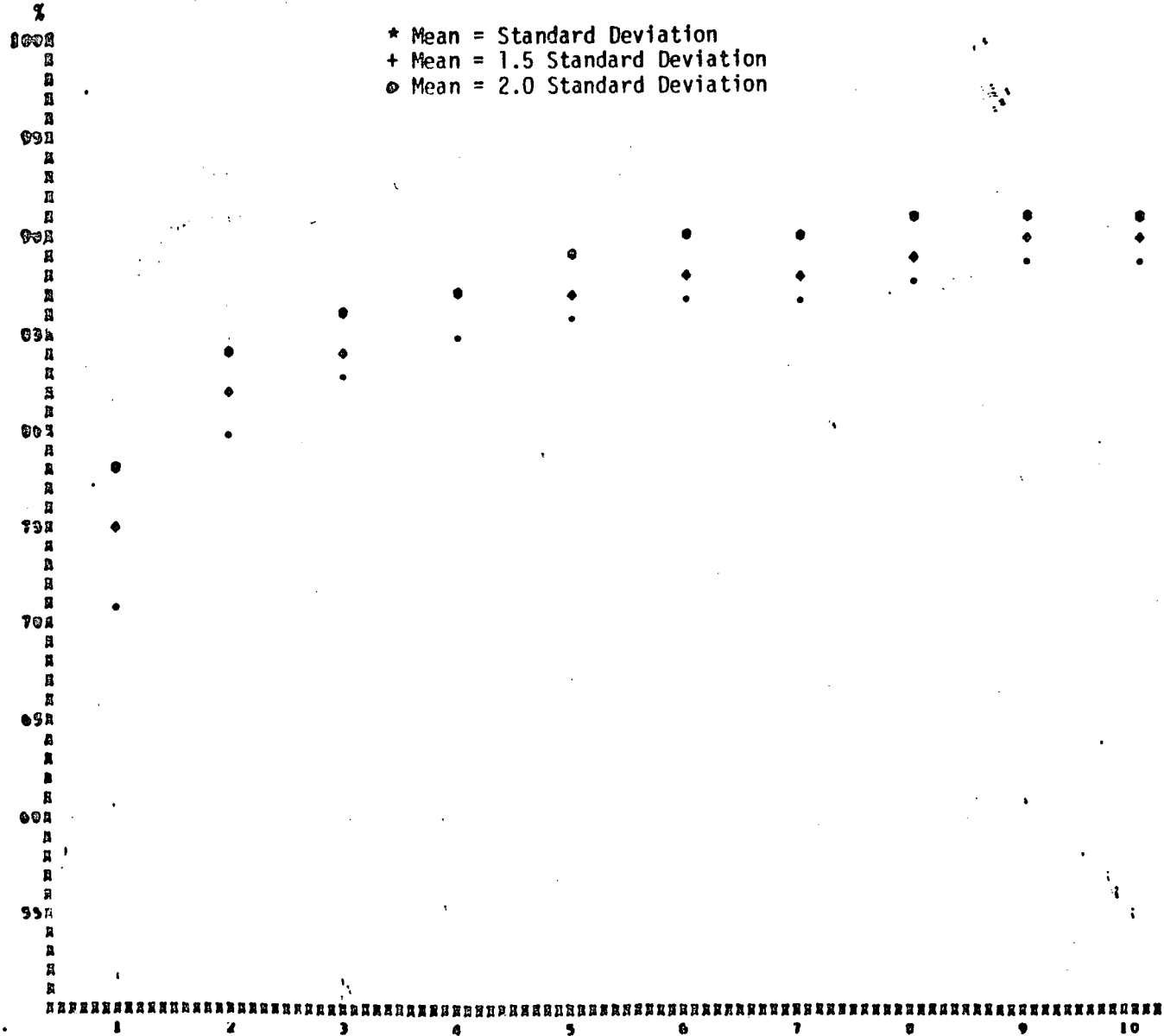+ Mean = 1.0 Standard Deviation
o Mean = 2.0 Standard Deviation

NUMBER OF JUDGES AVAILABLE

```
  %
100%X     * Mean = Standard Deviation
   X     + Mean = 1.5 Standard Deviation
   X     o Mean = 2.0 Standard Deviation
   X
 95%X
   X
   X
   X
 90%X
   X
   X
   X
 85%X
   X
   X
   X
 80%X
   X
   X
   X
 75%X
   X
   X
   X
 70%X
   X
   X
   X
 65%X
   X
   X
   X
 60%X
   X
   X
   X
 55%X
   X
   X
   X
   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
        1       2       3       4       5       6       7       8       9       10
```

NUMBER OF JUDGES AVAILABLE

I-33

PERCENTAGE OF CASES FINISHED MEAN = 6 MASTER CALENDAR DAY CERTAIN - EXHIBIT I-20
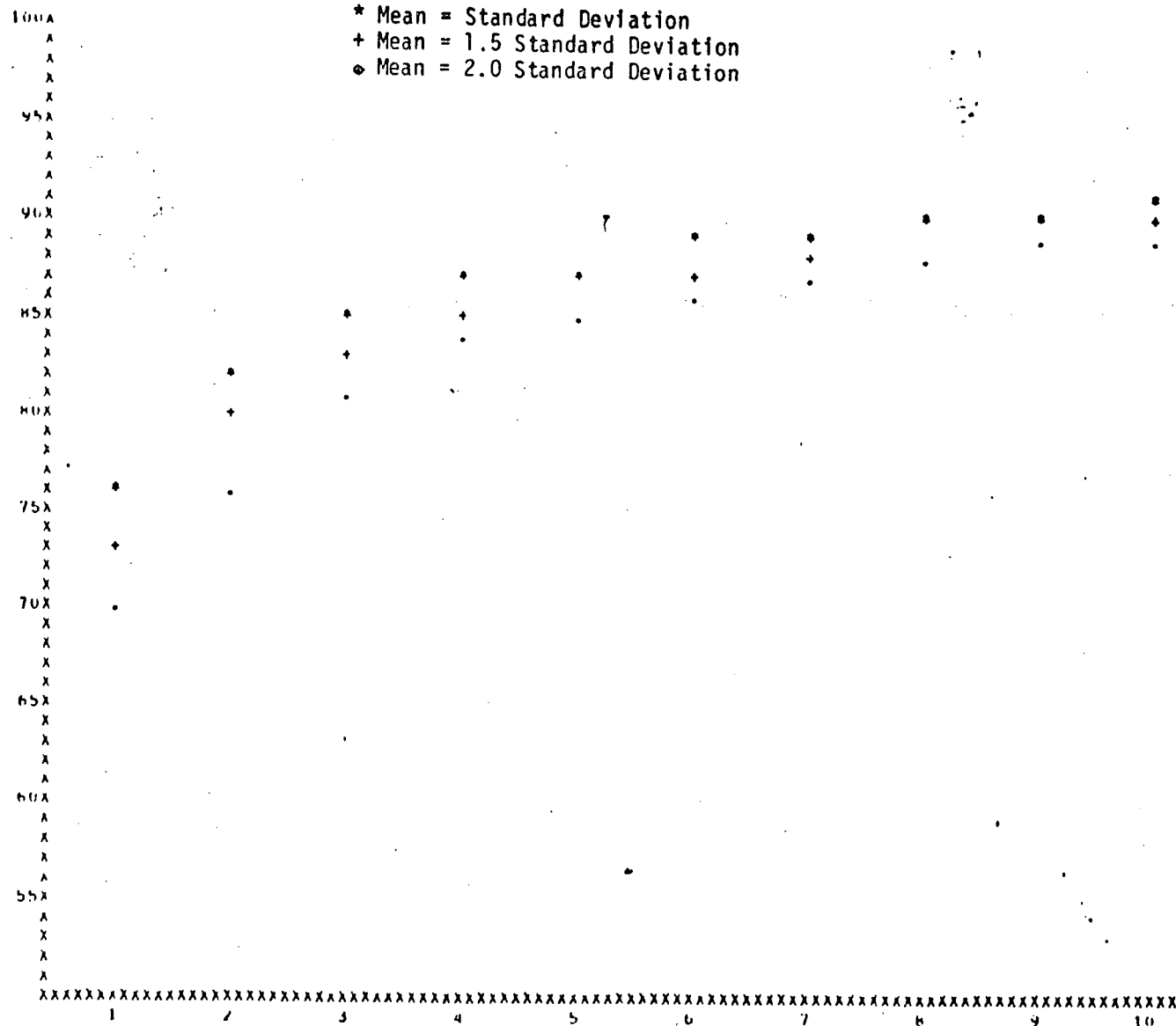
* Mean = Standard Deviation
+ Mean = 1.5 Standard Deviation
● Mean = 2.0 Standard Deviation
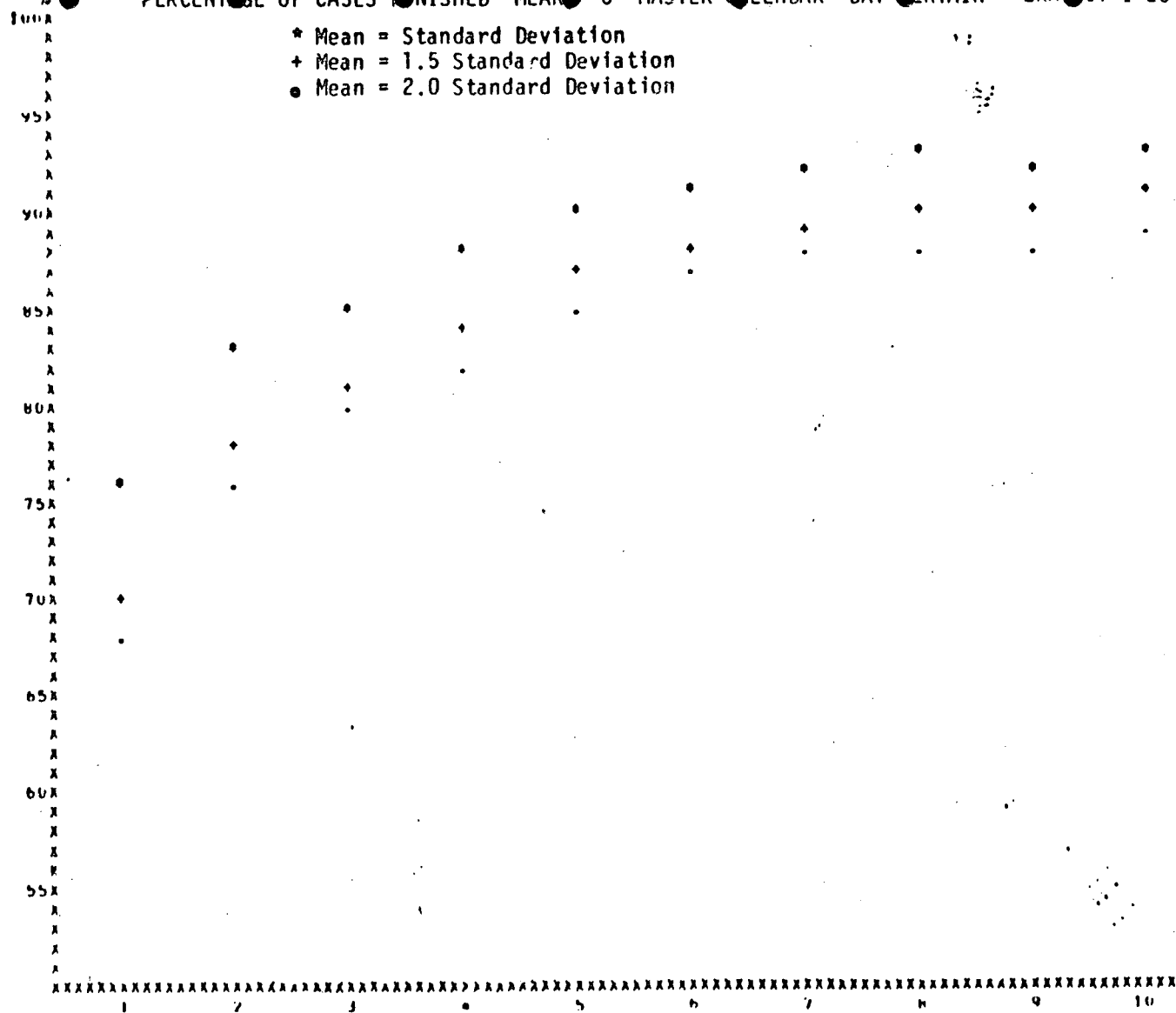
NUMBER OF JUDGES AVAILABLE

PERCENTAGE OF CASES FINISHED   MEAN = 12 HOURS   MASTER CALENDAR   DAY CERTAIN - EXHIBIT I-21

* Mean = Standard Deviation
+ Mean = 1.5 Standard Deviation
● Mean = 2.0 Standard Deviation

%
100%
95%
90%
85%
80%
75%
70%
65%
60%
55%

NUMBER OF JUDGES AVAILABLE
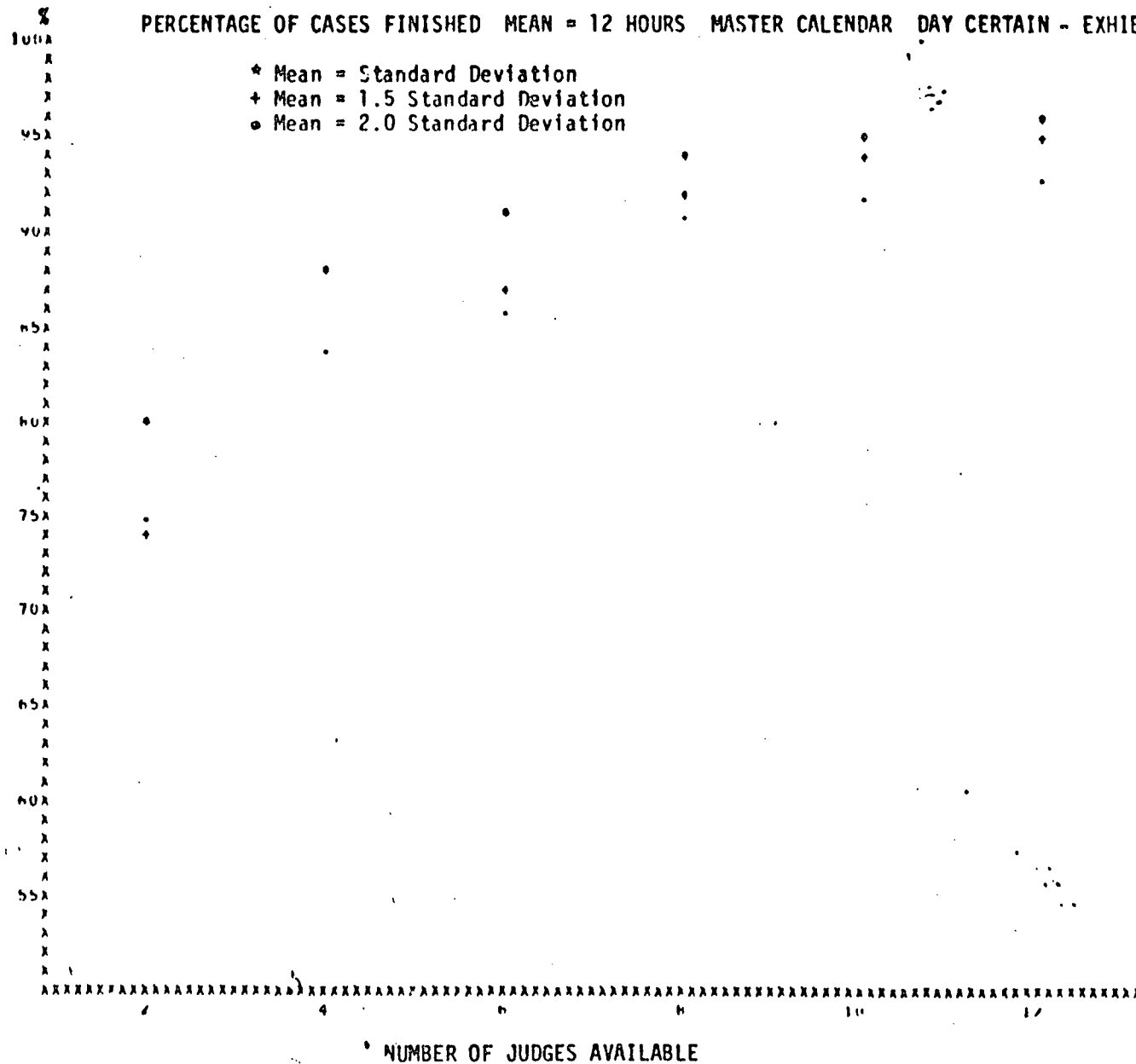
I-35
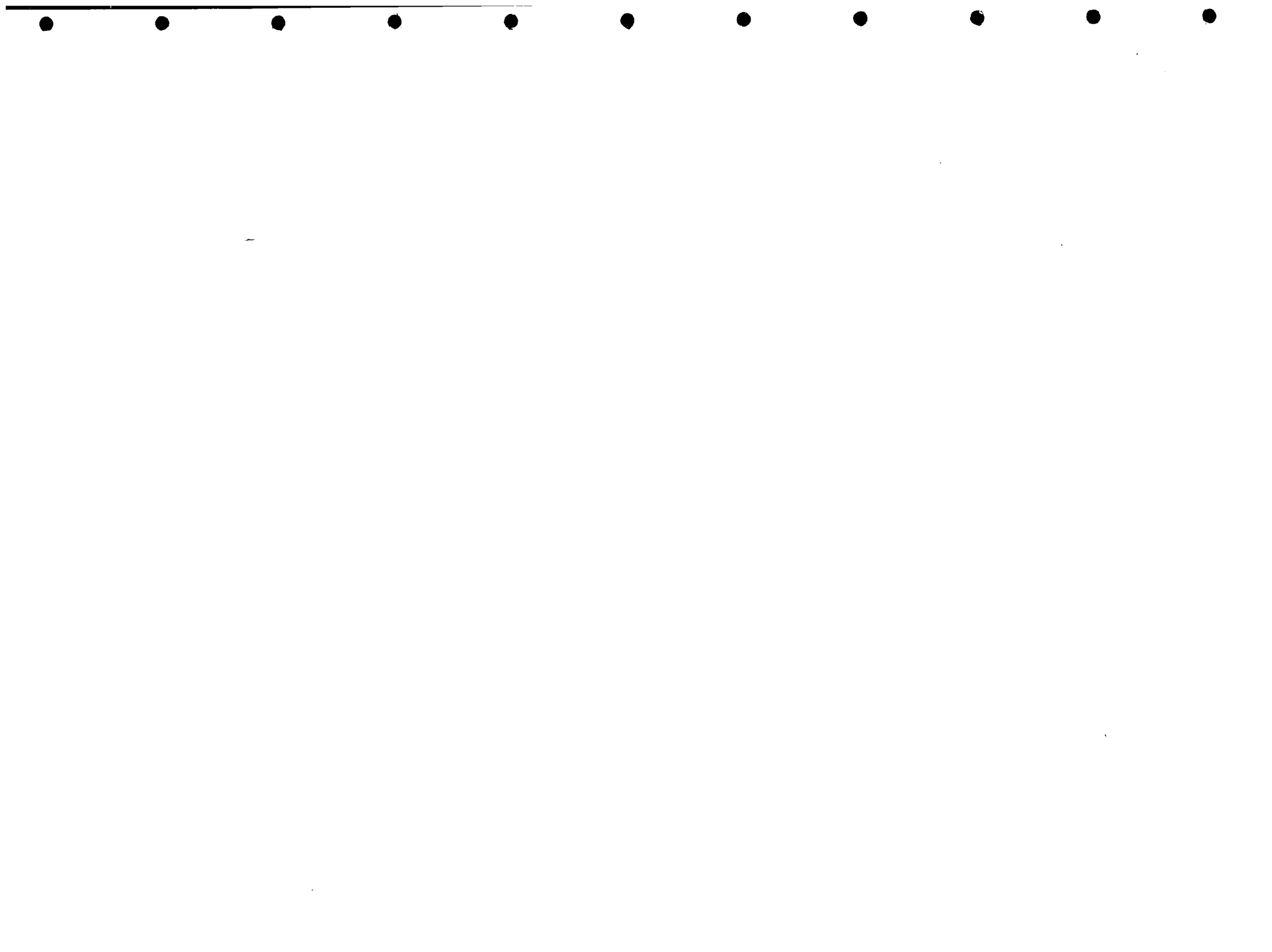
PERCENTAGE OF CASES FINISHED   MEAN = 12 HOURS   MASTER CALENDAR   DAY CERTAIN - EXHIBIT I-22
HYPEREXPONENTIAL DISTRIBUTION

* Mean = Standard Deviation
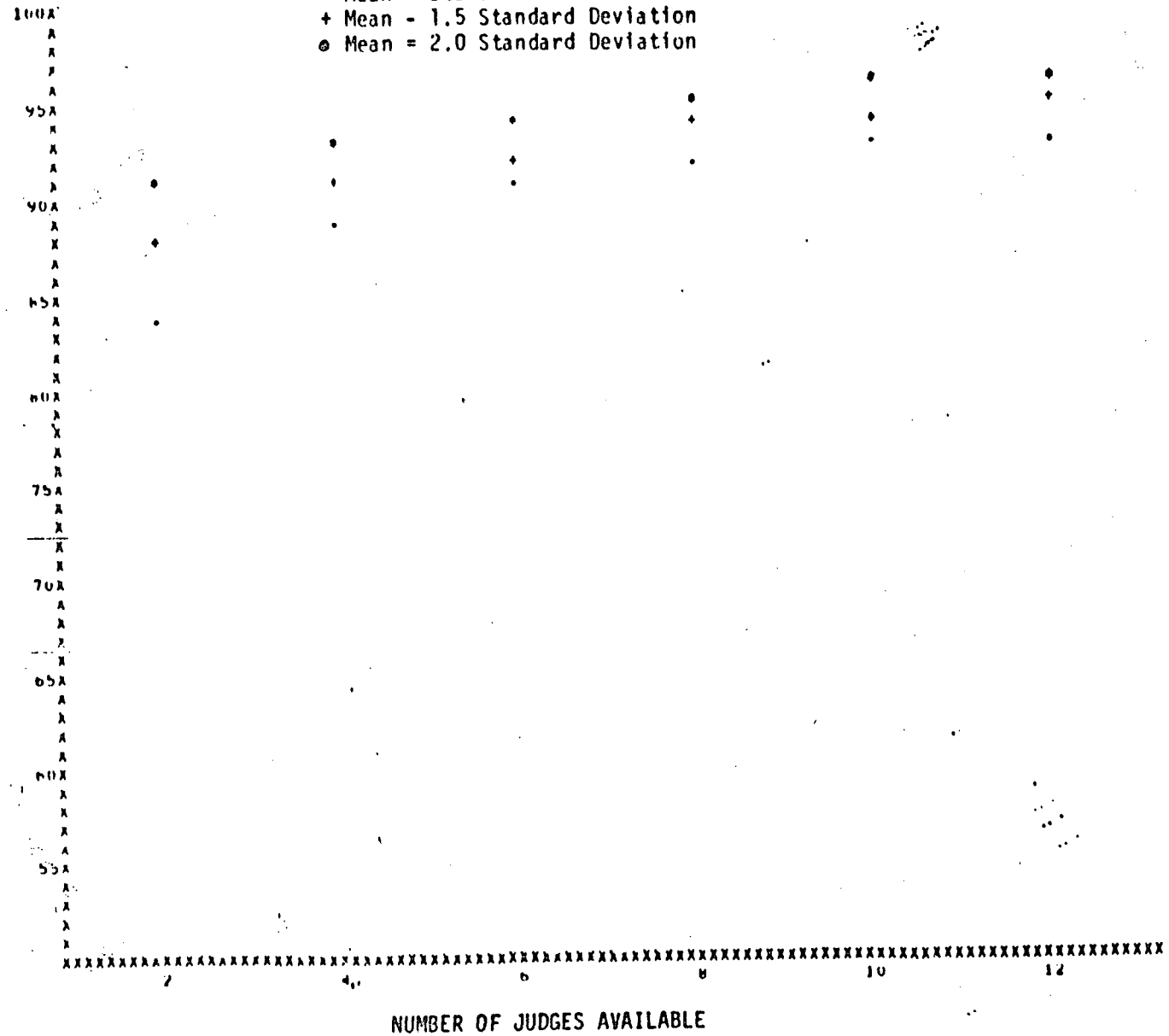+ Mean = 1.5 Standard Deviation
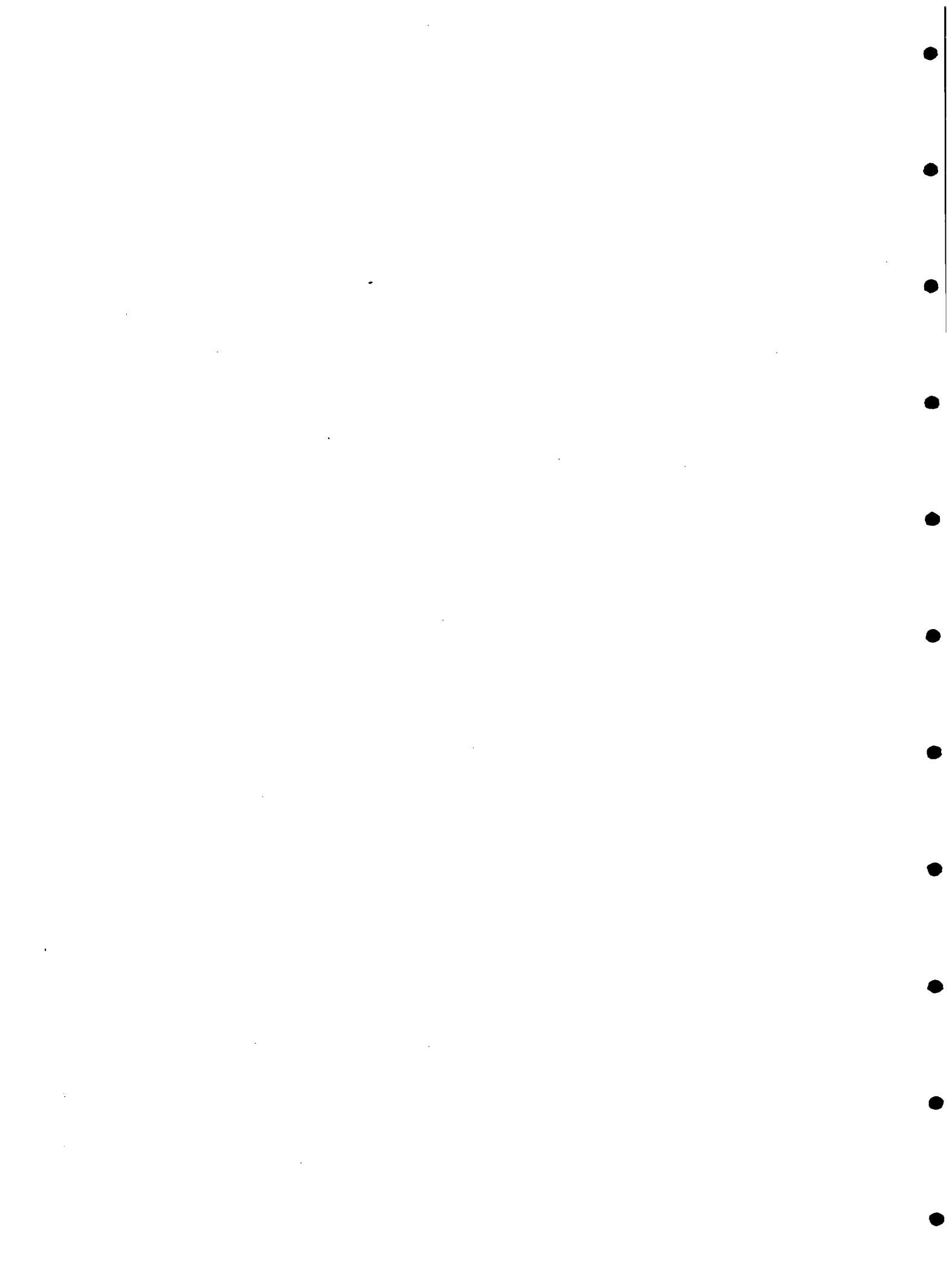. Mean = 2.0 Standard Deviation

NUMBER OF JUDGES AVAILABLE

I-36
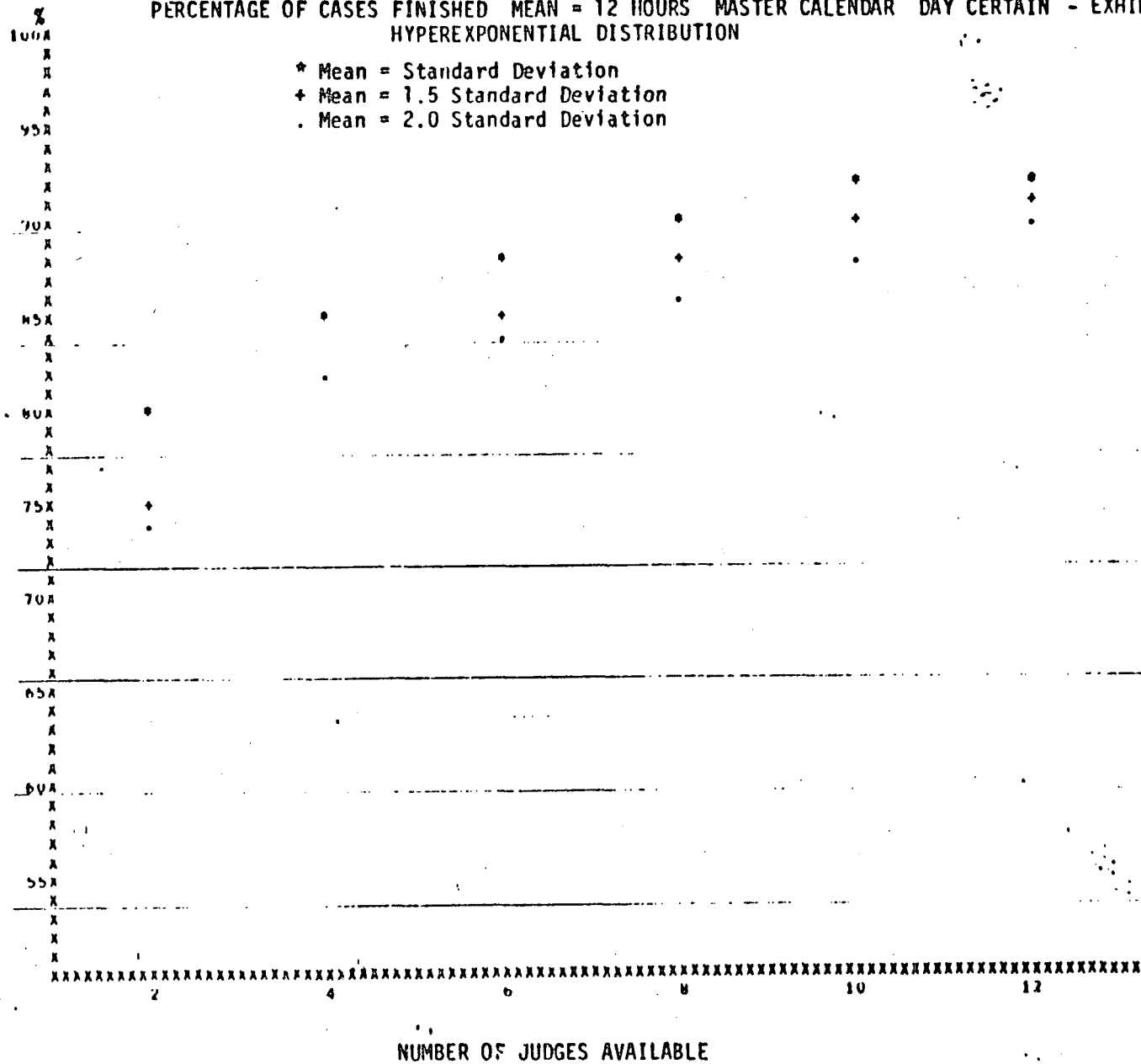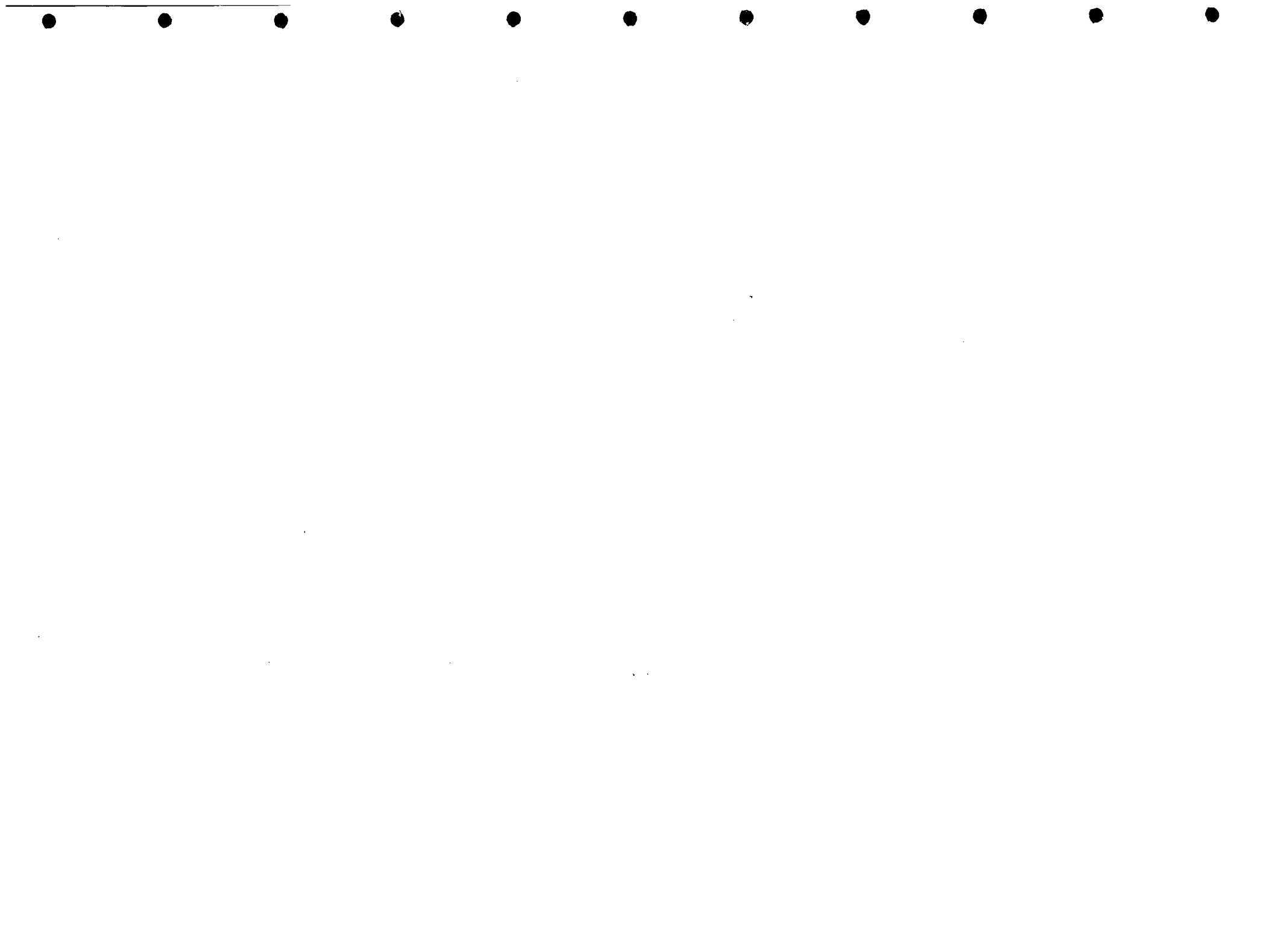
EXHIBIT I-23

PERCENTAGE OF EVENTS COMPLETED*

	Number of Judges Available		
	1	6	10
MEAN = 2 HOURS			
$\sigma = 2$	.80	.93	.94
$\sigma = 3$	.76	.90	.93
$\sigma = 4$	.73	.88	.90
MEAN = 3 HOURS			
$\sigma = 3$	.79	.92	.94
$\sigma = 4.5$	.74	.90	.92
$\sigma = 6$	.72	.87	.90
MEAN = 6 HOURS			
$\sigma = 6$	.76	.91	.93
$\sigma = 9$	.70	.88	.91
$\sigma = 12$	.68	.87	.89

	Number of Judges Available		
	2	10	12
MEAN = 12 HOURS **(HYPEREXPONENTIAL DISTRIBUTION)**			
$\sigma = 12$	.80	.88	.92
$\sigma = 18$	.75	.85	.91
$\sigma = 24$	.74	.84	.90
MEAN = 12 HOURS **(UNIFORM DISTRIBUTION)**			
**Range = 12	.91	.95	.96
Range = 18	.88	.93	.95
Range = 24	.84	.92	.93

* Ratio represents number completed in 1000 day period over number scheduled during that period.

** Ranges of 12, 18, and 24 correspond to standard deviations of 3.464, 5.196, and 6.928, respectively.

master calendar exceeds 15 percentage points. The ten-judge master calendar shows only marginal improvement over the six-judge arrangement, a 2 or 3 percentage point increase in completion rate. Again, the master calendar performs better than the individual calendar.

Cases overscheduled

Exhibits I-24 through I-27 show the average number of cases overscheduled daily for duration/precision/availability categories. These exhibits support the hypothesis that the more accurate the estimates of event length, the less likely events will be overscheduled. The shape of the lines through the points of mean/standard deviation category suggests a decreasing overscheduling rate. Specifically, as more judges are available, the absolute number of cases overscheduled increases, but the rate of overscheduling declines. Exhibit I-28 shows this decline of overscheduling rates for selected availability levels. An inverse relationship plainly exists between the completion and overscheduling rates: the larger the percentage of completions, the smaller the percentage of overscheduled events. Due to carry-overs, the relationship is not perfect.

Exhibit I-28 also documents the advantages of the master calendar. For example, with an event duration of three hours, the overscheduling rate for the six-judge master calendar decreases anywhere from 14 to 16 percentage points from the corresponding precision levels in the individual calendar.
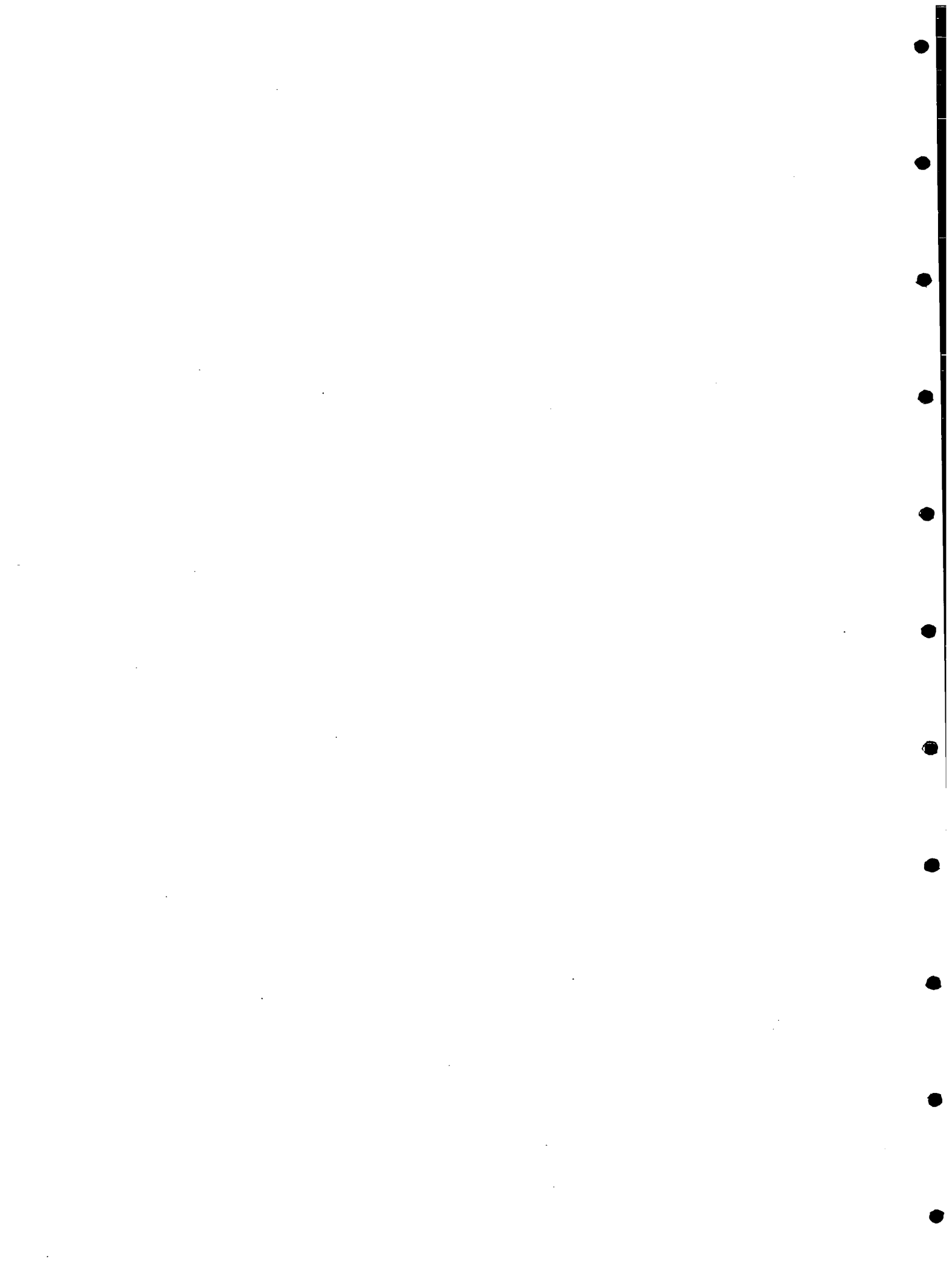
Cases

CASES OVERSCHEDULED   MEAN = 2   MASTER CALENDAR   DAY CERTAIN - EXHIBIT I-24

* Mean = Standard Deviation
+ Mean = 1.5 Standard Deviation
· Mean = 2.0 Standard Deviation

5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50

1   2   3   4   5   6   7   8   9   10

NUMBER OF JUDGES AVAILABLE

CASES OVERSCHEDULED   MEAN = 3   MASTER CALENDAR   DAY CERTAIN - EXHIBIT I-25

Cases

5.00X

* Mean = Standard Deviation
+ Mean = 1.5 Standard Deviation
· Mean = 2.0 Standard Deviation

4.50X

4.00X

3.50X

3.00X

2.50X

2.00X

1.50X

1.00X

0.50X

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

1   2   3   4   5   6   7   8   9   10

NUMBER OF JUDGES AVAILABLE

I-40

CASES OVERSCHEDULED MEAN = 6 MASTER CALENDAR DAY CERTAIN - EXHIBIT I-26

Cases

* Mean = Standard Deviation
+ Mean = 1.5 Standard Deviation
. Mean = 2.0 Standard Deviation

5.00X
4.50X
4.00X
3.50X
3.00X
2.50X
2.00X
1.50X
1.00X
0.50X

1   2   3   4   5   6   7   8   9   10

NUMBER OF JUDGES AVAILABLE

I-41

CASES OVERSCHEDULED MEAN = 12 HOURS MASTER CALENDAR DAY CERTAIN - EXHIBIT I-27

Cases

* Mean = Standard Deviation
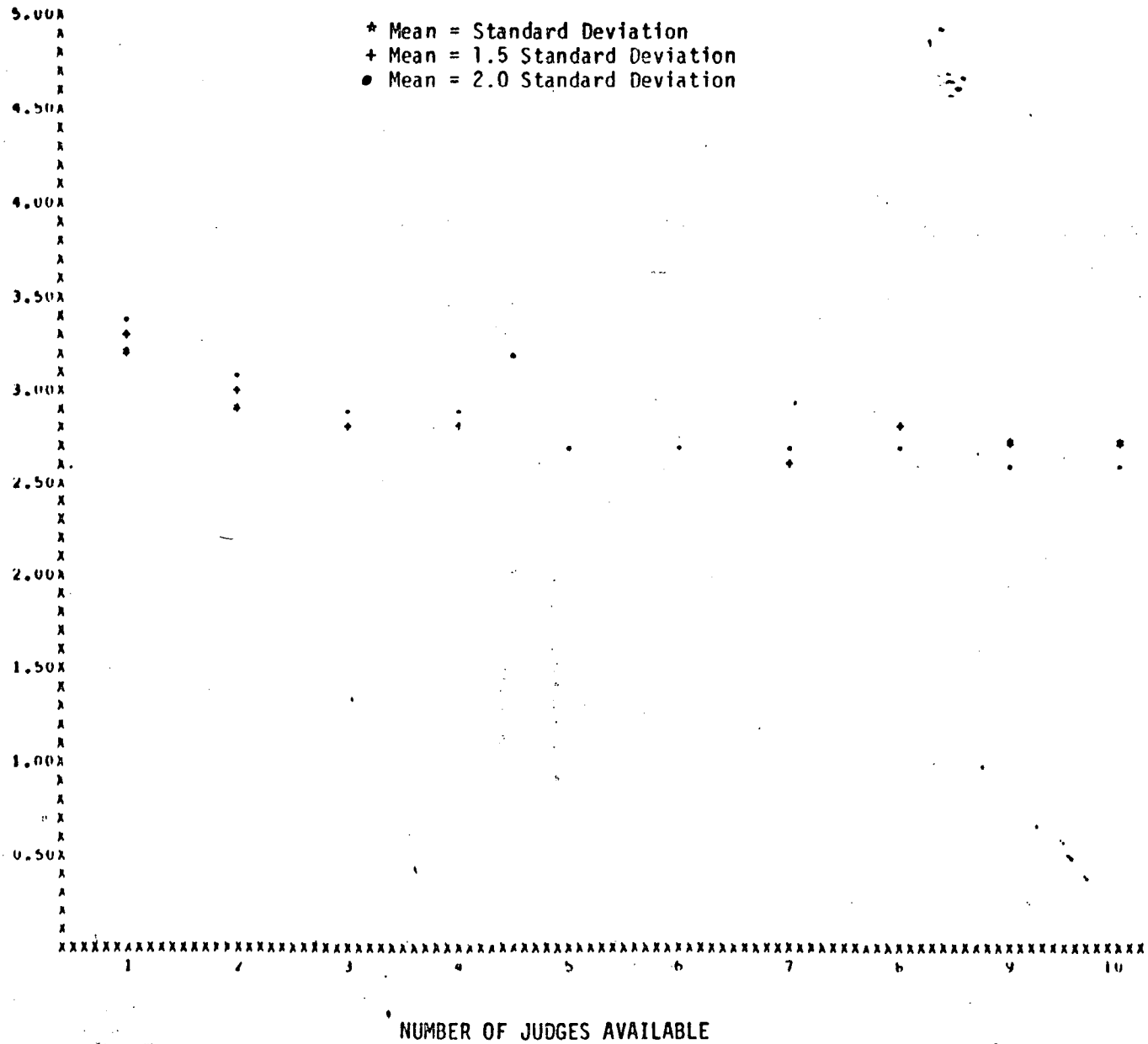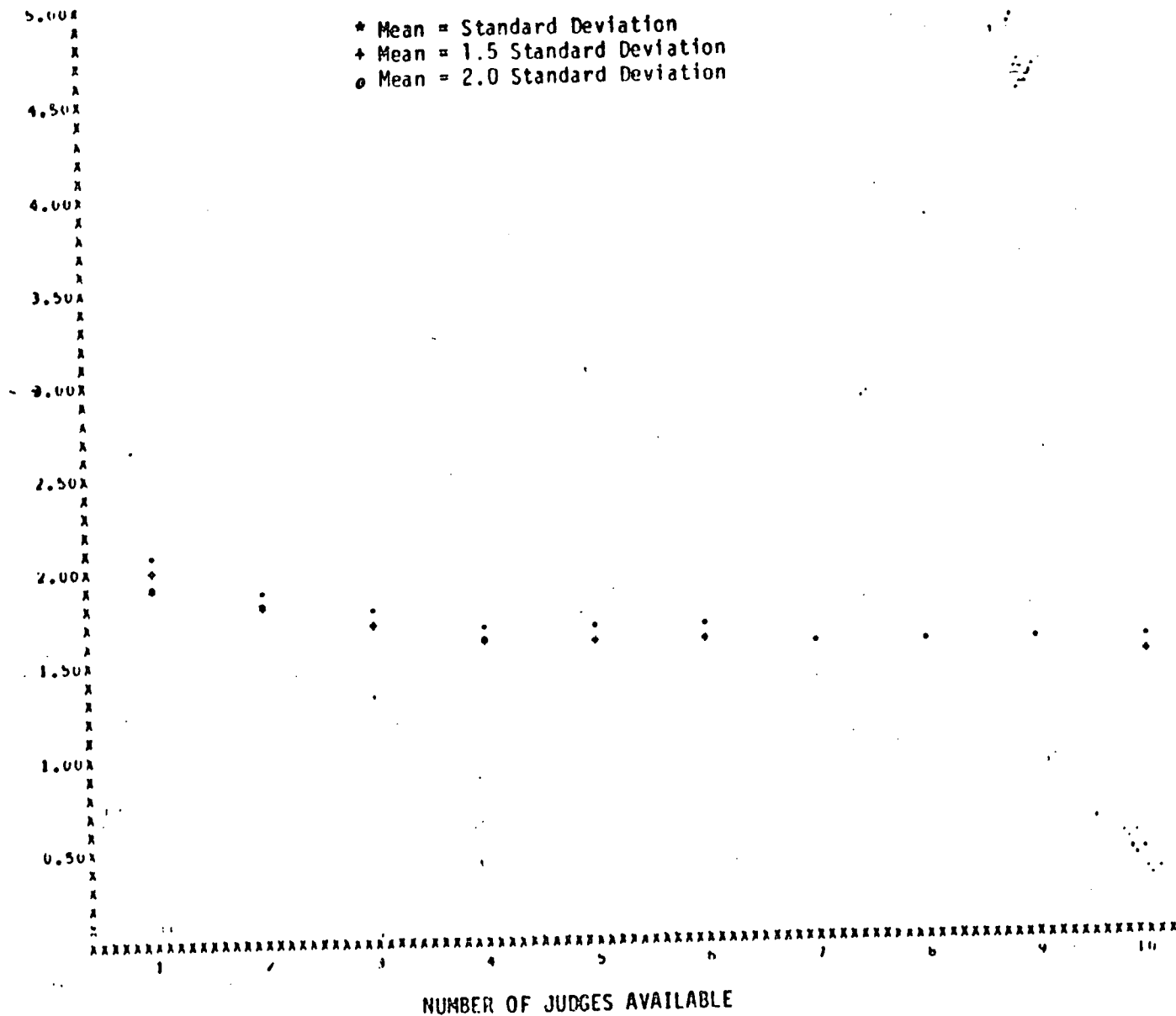+ Mean = 1.5 Standard Deviation
· Mean = 2.0 Standard Deviation

NUMBER OF JUDGES AVAILABLE

EXHIBIT I-28

PERCENTAGE OF CASES OVERSCHEDULED *

	Number of Judges Available		
	1	6	10
MEAN = 2 HOURS			
= 2	.20	.08	.06
= 3	.24	.10	.08
= 4	.27	.12	.10
MEAN = 3 HOURS			
= 3	.22	.08	.06
= 4.5	.27	.11	.08
= 6	.29	.13	.10
MEAN = 6 HOURS			
= 6	.24	.09	.07
= 9	.30	.12	.09
= 12	.32	.14	.11

	Number of Judges Available		
	2	6	12
MEAN = 12 HOURS (HYPEREXPONENTIAL DISTRIBUTION)			
= 12	.20	.12	.08
= 18	.26	.15	.09
= 24	.26	.16	.11
MEAN = 12 HOURS (UNIFORM DISTRIBUTION)			
**Range = 12	.09	.05	.04
Range = 18	.12	.07	.05
Range = 24	.16	.09	.07

* Ratio represents number of events not heard during 1000 day period over the number scheduled for that period.

** Ranges of 12, 18, and 24 correspond to standard deviations of 3.464, 5.196, and 6.928, respectively.
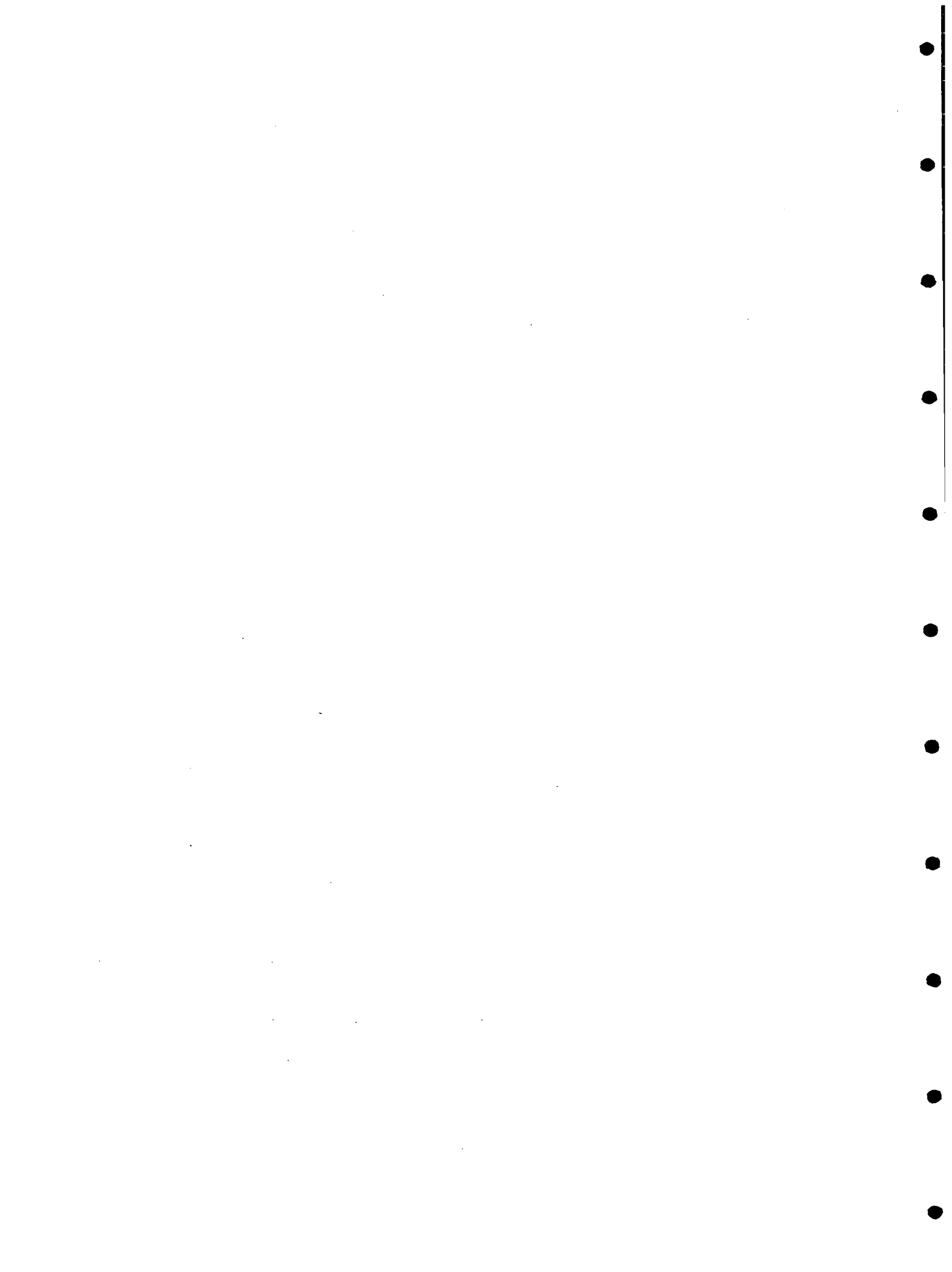
Carry-overs

Exhibits I-29 through I-33 show the number of events carried over from one day to the next, a variable that measures the number of judges busy with cases in progress as the day begins. The exhibits indicate that the more uncertain the levels of event duration, the more cases carry over from one day to the next. For example, with one judge available and an event duration of two hours, 8 percent of the cases carry over when the event variability is two hours (Exhibit I-34). For an event variability of four hours, the carry-over rate increases slightly to 11 percent. Of course, if predictions of event duration were completely accurate, a scheduling formula could eliminate or limit carry-overs. With uncertain event durations, however, carry-overs are likely because of longer than expected event lengths, even with the most cautious scheduling formula.

Exhibit I-34 indicates that the average carry-over rate increases somewhat as the number of judges increases. Because the flexibility of a master calendar enables a judge who has completed "his" cases for the day to undertake a case "belonging" to a colleague, the additional judges in a master calendar increase overall scheduling efficiency through increased judge utilization and decreased scheduling. At the same time, events started later in the day by a judge in a master calendar often carry over to the following day. We submit that many of the cases carried over under a master calendar would not have been started, but labeled as overscheduled, under an individual calendar.
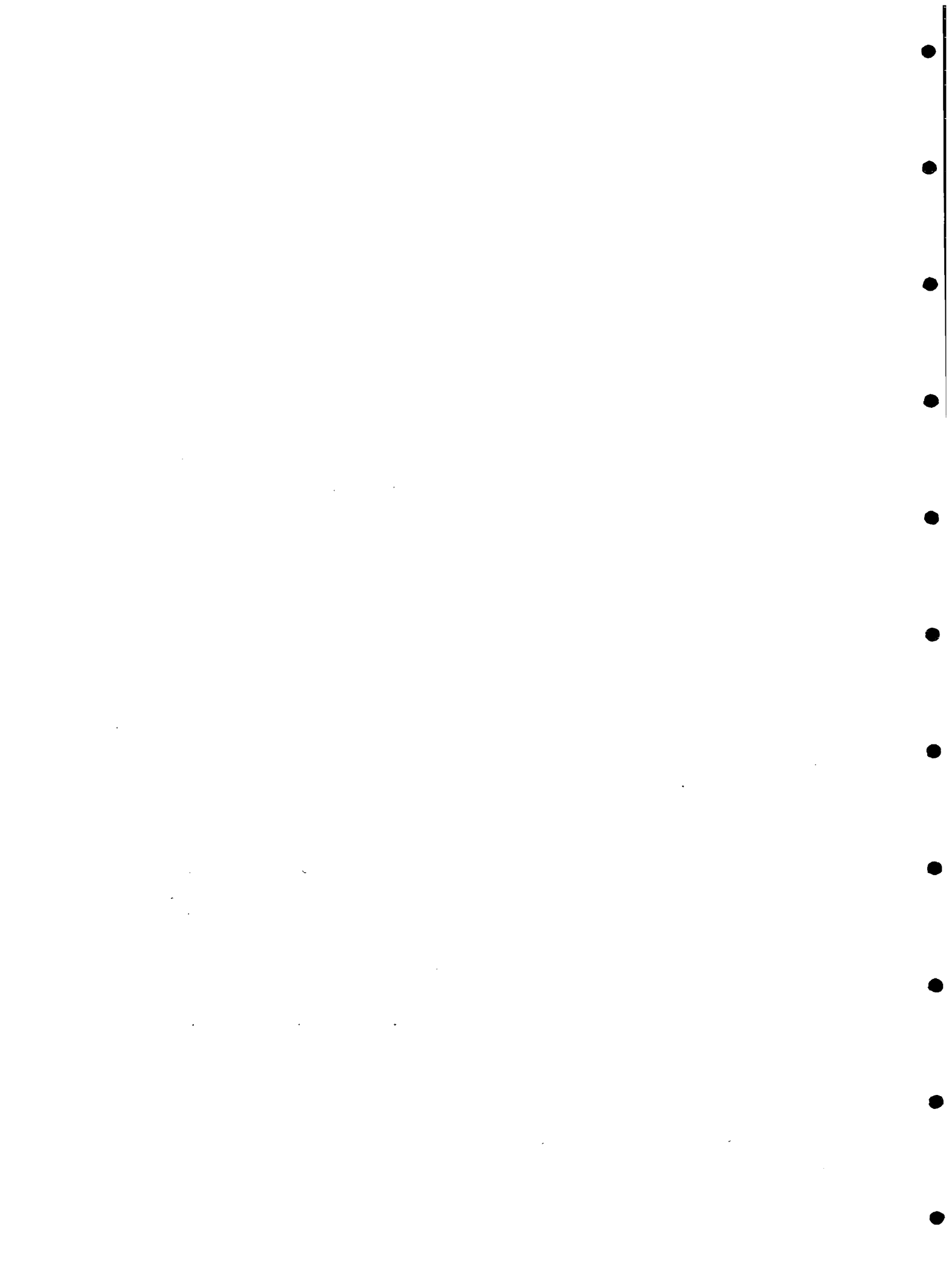
Cases

CASES CARRIED OVER TO NEXT DAY   MEAN = 2   MASTER CALENDAR   DAY CERTAIN - EXHIBIT I-29

* Mean = Standard Deviation
+ Mean = 1.5 Standard Deviation
· Mean = 2.0 Standard Deviation

5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50

1   2   3   4   5   6   7   8   9   10

NUMBER OF JUDGES AVAILABLE

I-45
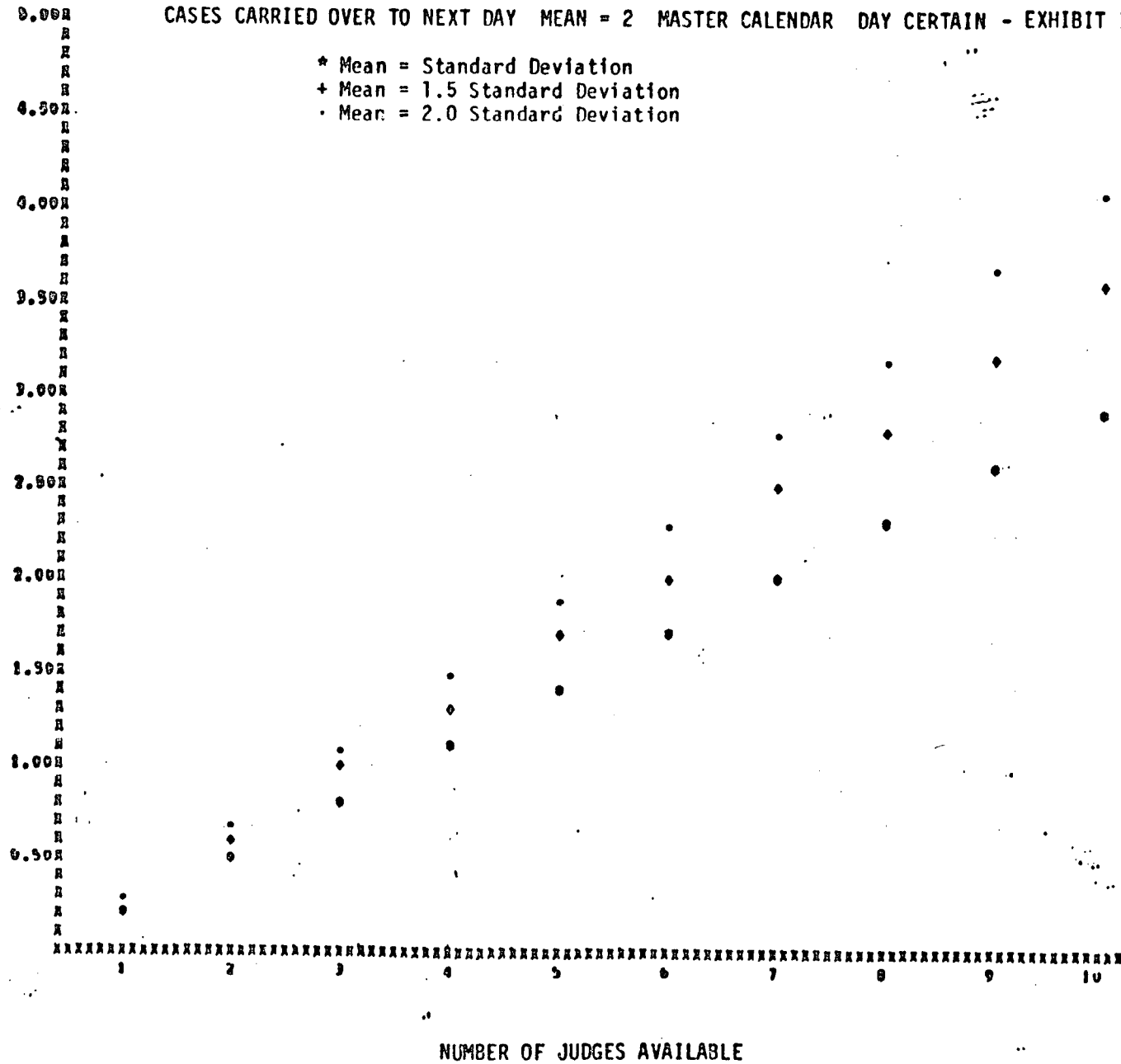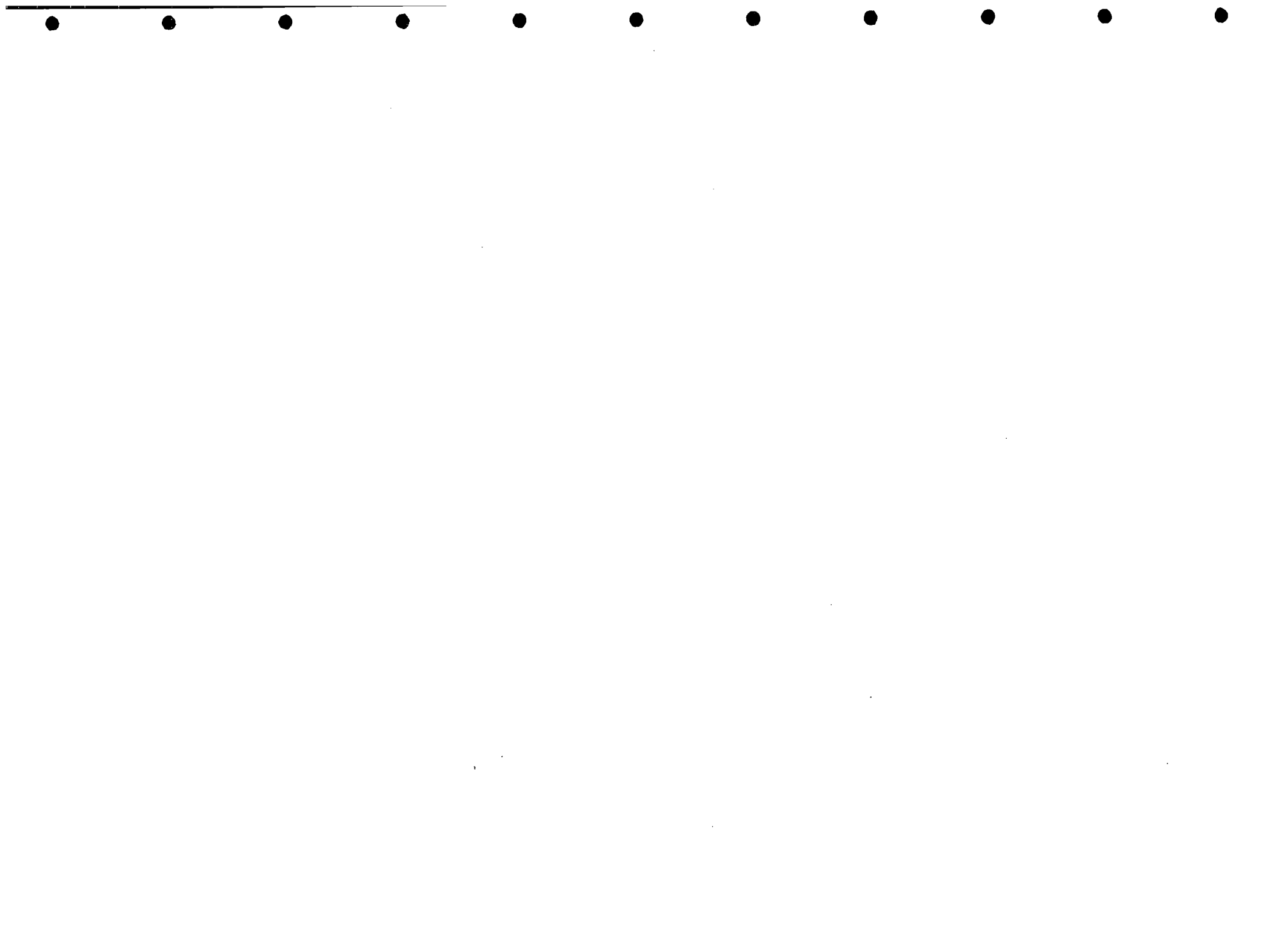
Cases

CASES CARRIED OVER TO NEXT DAY   MEAN = 3   MASTER CALENDAR   DAY CERTAIN - EXHIBIT I-30

* Mean = Standard Deviation
+ Mean = 1.5 Standard Deviation
· Mean = 2.0 Standard Deviation

5.00X
4.50X
4.00X
3.50X
3.00X
2.50X
2.00X
1.50X
1.00X
0.50X

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

1   2   3   4   5   6   7   8   9   10

NUMBER OF JUDGES AVAILABLE

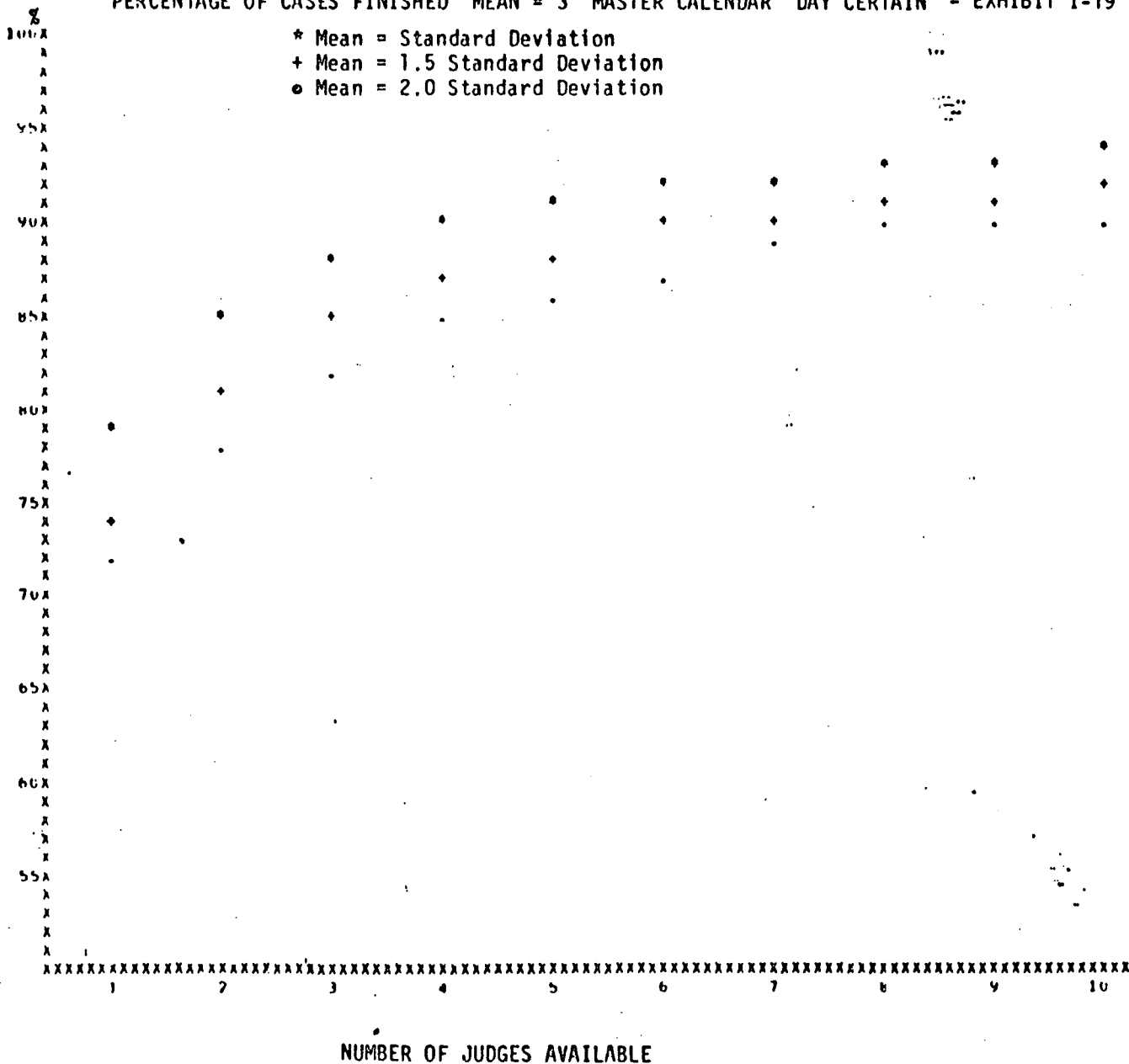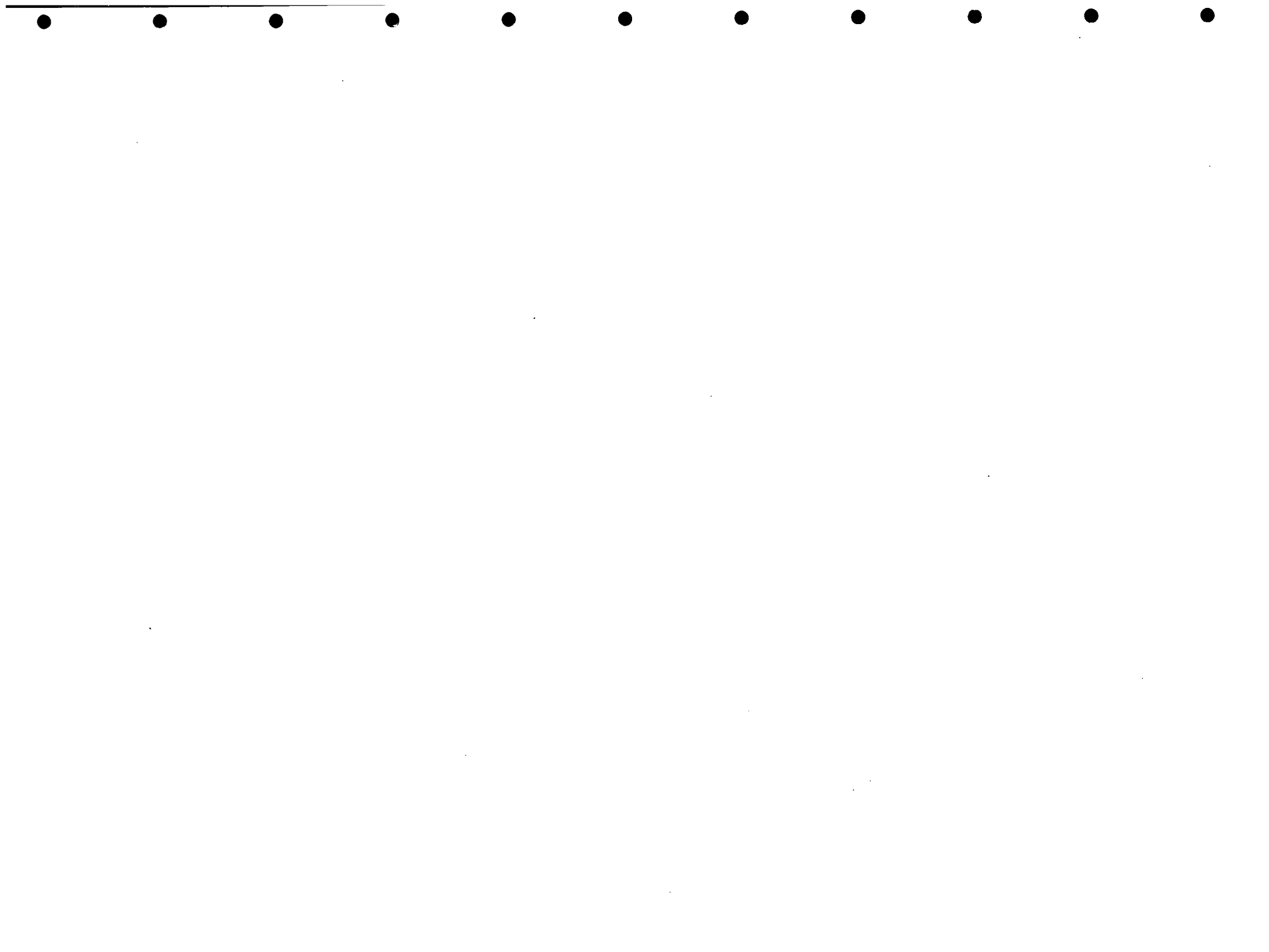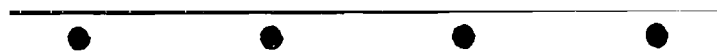CASES CARRIED OVER TO NEXT DAY   MEAN = 6   MASTER CALENDAR   DAY CERTAIN - EXHIBIT I-31

* Mean = Standard Deviation
\+ Mean = 1.5 Standard Deviation
· Mean = 2.0 Standard Deviation

NUMBER OF JUDGES AVAILABLE

I-47

Cases

* Mean = Standard Deviation
+ Mean = 1.5 Standard Deviation
· Mean = 2.0 Standard Deviation

I-48

NUMBER OF JUDGES AVAILABLE
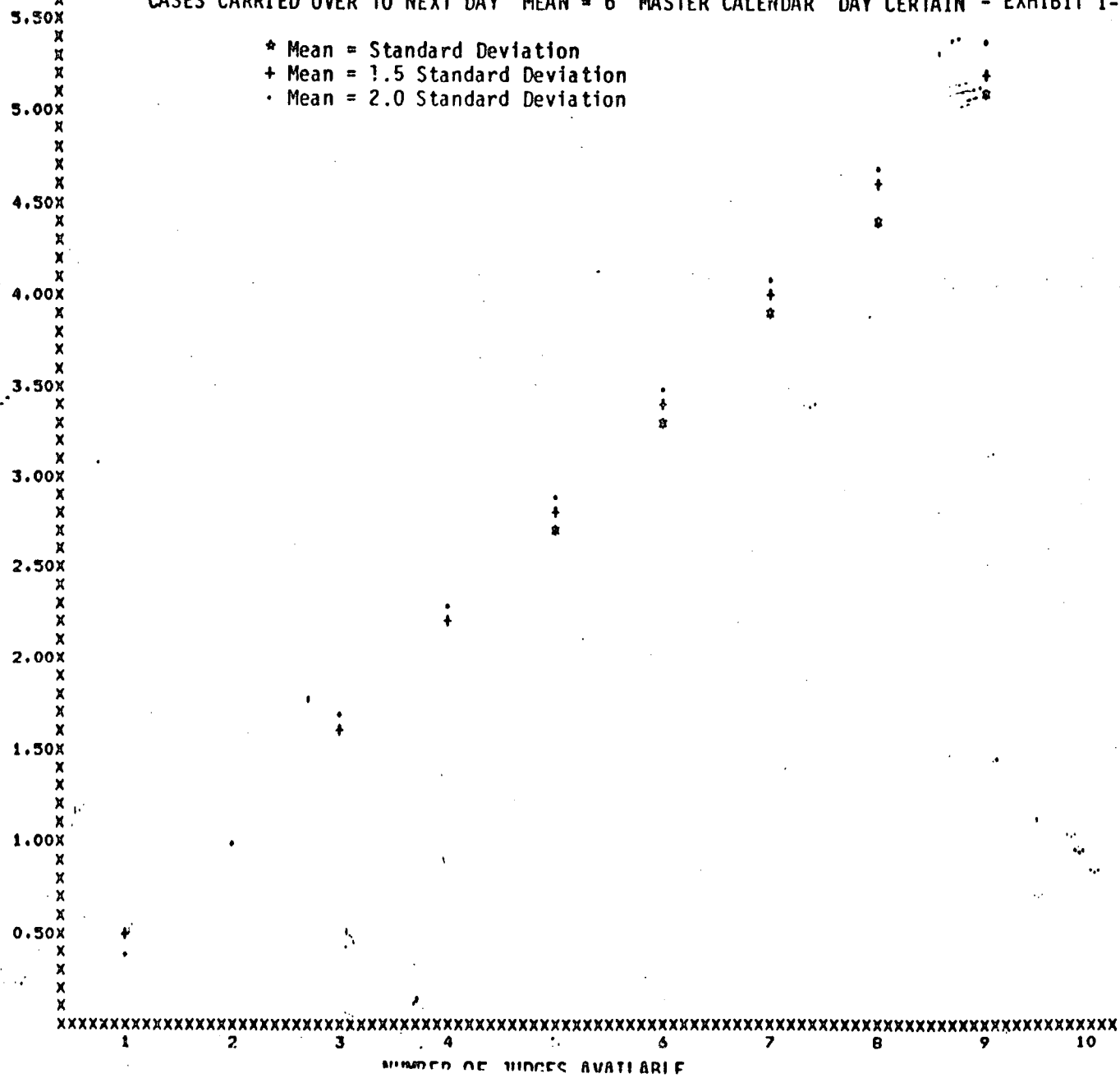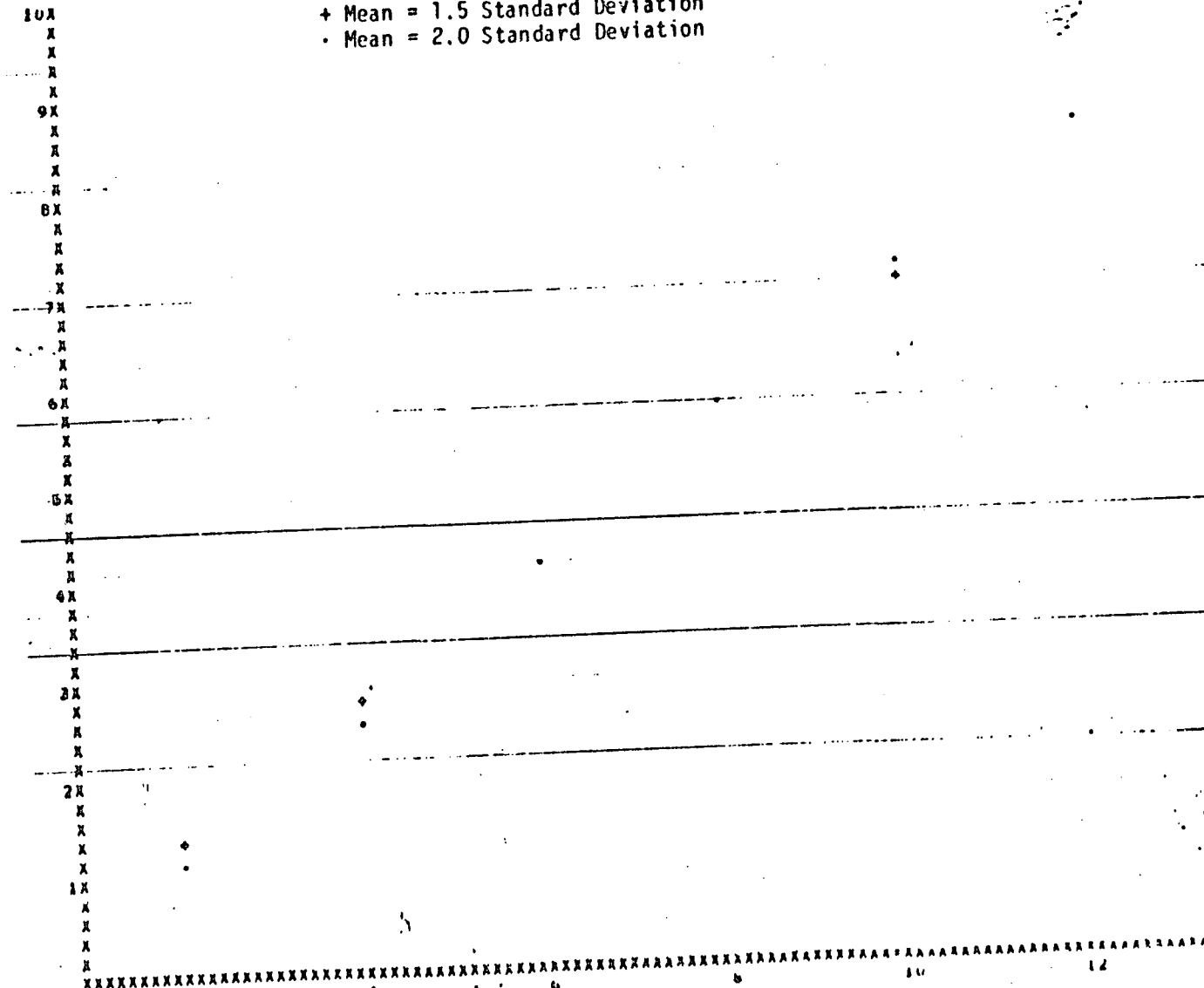
CASES CARRIED OVER TO NEXT DAY   MEAN = 12 HOURS   MASTER CALENDAR   DAY CERTAIN - EXHIBIT I-23
HYPEREXPONENTIAL DISTRIBUTION

Cases

* Mean = Standard Deviation
+ Mean = 1.5 Standard Deviation
· Mean = 2.0 Standard Deviation

10X
    X
    X
    X
 9X
    X
    X
    X
    X
 8X
    X
    X
    X
    X
 7X
    X
    X
    X
 6X
    X
    X
    X
    X
 5X
    X
    X
    X
    X
 4X
    X
    X
    X
 3X
    X
    X
    X
    X
 2X
    X
    X
    X
    X
 1X
    X
    X
    X
    X
   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
         2   4   6   8   10   12

NUMBER OF JUDGES AVAILABLE

I-49
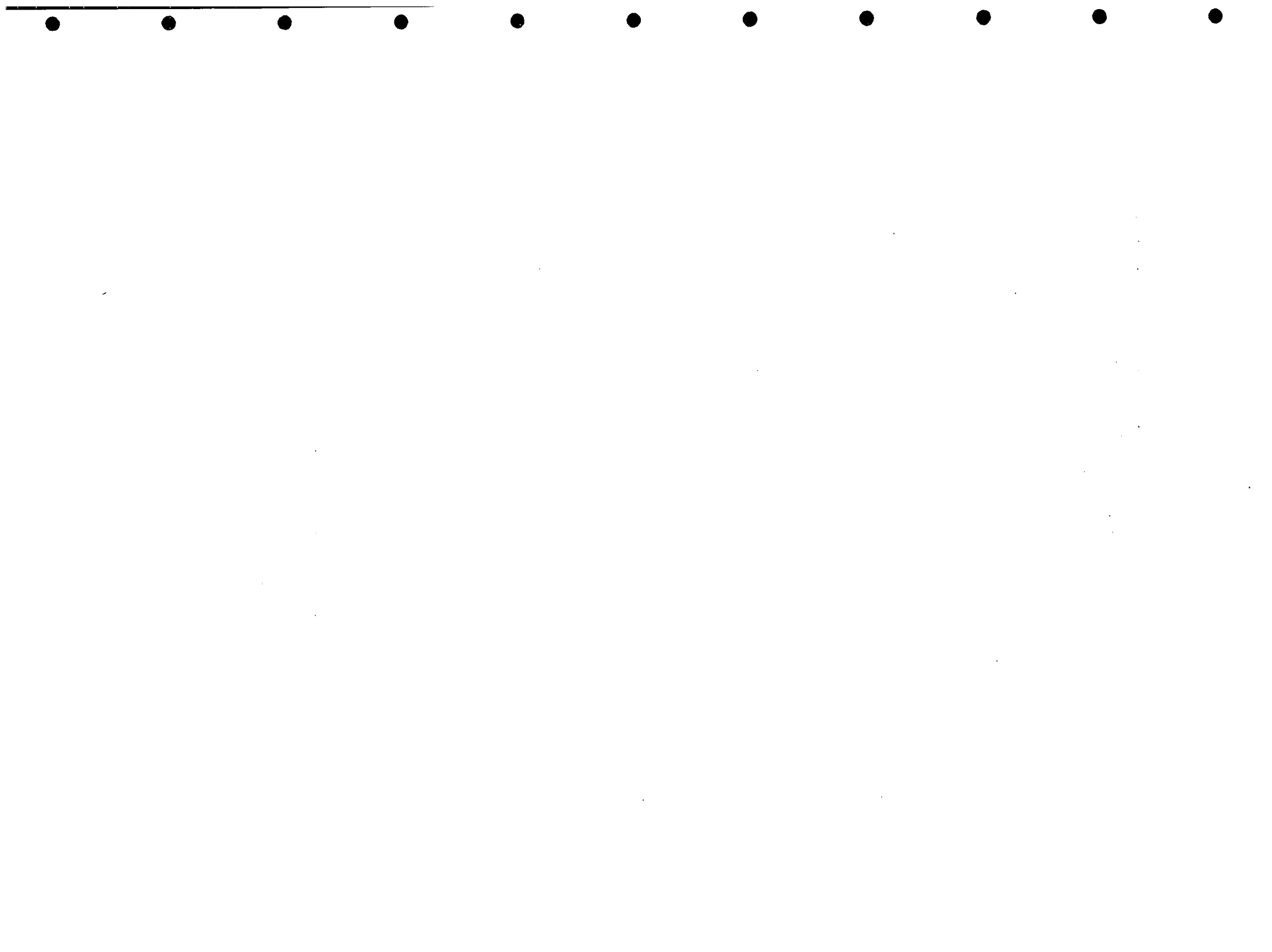
EXHIBIT I-34

PERCENTAGE OF CARRYOVER EVENTS *

	Number of Judges Available		
	1	6	10
MEAN = 2 HOURS			
σ = 2	.08	.09	.10
σ = 3	.10	.11	.12
σ = 4	.11	.13	.14
MEAN = 3 HOURS			
σ = 3	.16	.20	.21
σ = 4.5	.18	.22	.22
σ = 6	.18	.23	.24
MEAN = 6 HOURS			
σ = 6	.46	.55	.57
σ = 9	.46	.56	.59
σ = 12	.43	.58	.61

	Number of Judges Available		
	2	6	12
MEAN = 12 HOURS **(HYPEREXPONENTIAL DISTRIBUTION)**			
σ = 12	1.22 ***	1.37	1.40
σ = 18	1.24	1.37	1.40
σ = 24	1.16	1.38	1.42
MEAN = 12 HOURS **(UNIFORM DISTRIBUTION)**			
**Range = 12	1.36	1.44	1.48
Range = 18	1.29	1.39	1.44
Range = 24	1.27	1.35	1.45

* Ratio represents number of events carried over from one day to next during 1000 day period over the number scheduled during that period. To determine the number of judges busy at beginning of next day, simply mlutiply percentage shown by number of events scheduled per judge day.

** Ranges of 12, 18, and 24 hours correspond to standard deviations of 3.464, 5.196, and 6.928 hours, respectively.

*** These numbers are percentages, too. Recall that we schedule one case per 2 judge-days when mean is assumed to be 12 hours.

I-50

Summary

Consider, for a moment, court scheduling with perfect in-
formation about event duration. Under this circumstance, it
would be possible to utilize system resources fully. For in-
stance, if the expected event duration were three hours with
no variability, and if six judges were available during a
six-hour work day, twelve events could be scheduled to utilize
judicial resources fully, with no overscheduling. Furthermore,
events could be scheduled to minimize overall waiting time.
Obviously, the system hypothesized above is nonexistent. It
does, nevertheless, provide a starting point for considering
the effects of uncertainty in the model.

Use of the model suggests a direct relationship between
uncertainty and system performance: As information about
expected event duration is lost by introducing event variabili-
ty into the model, system performance declines. Based on the
various performance measures, noticeable improvements in
system performance are attained with additional information,
or reduced variability, about event duration. In the extreme
case of total uncertainty (no knowledge about event duration
and case mix), court scheduling would be haphazard and would
use court resources very inefficiently. Therefore, any in-
formation about event duration can assist court scheduling.
Naturally, the more accurate the information, the more bene-
ficial to scheduling efficiency.
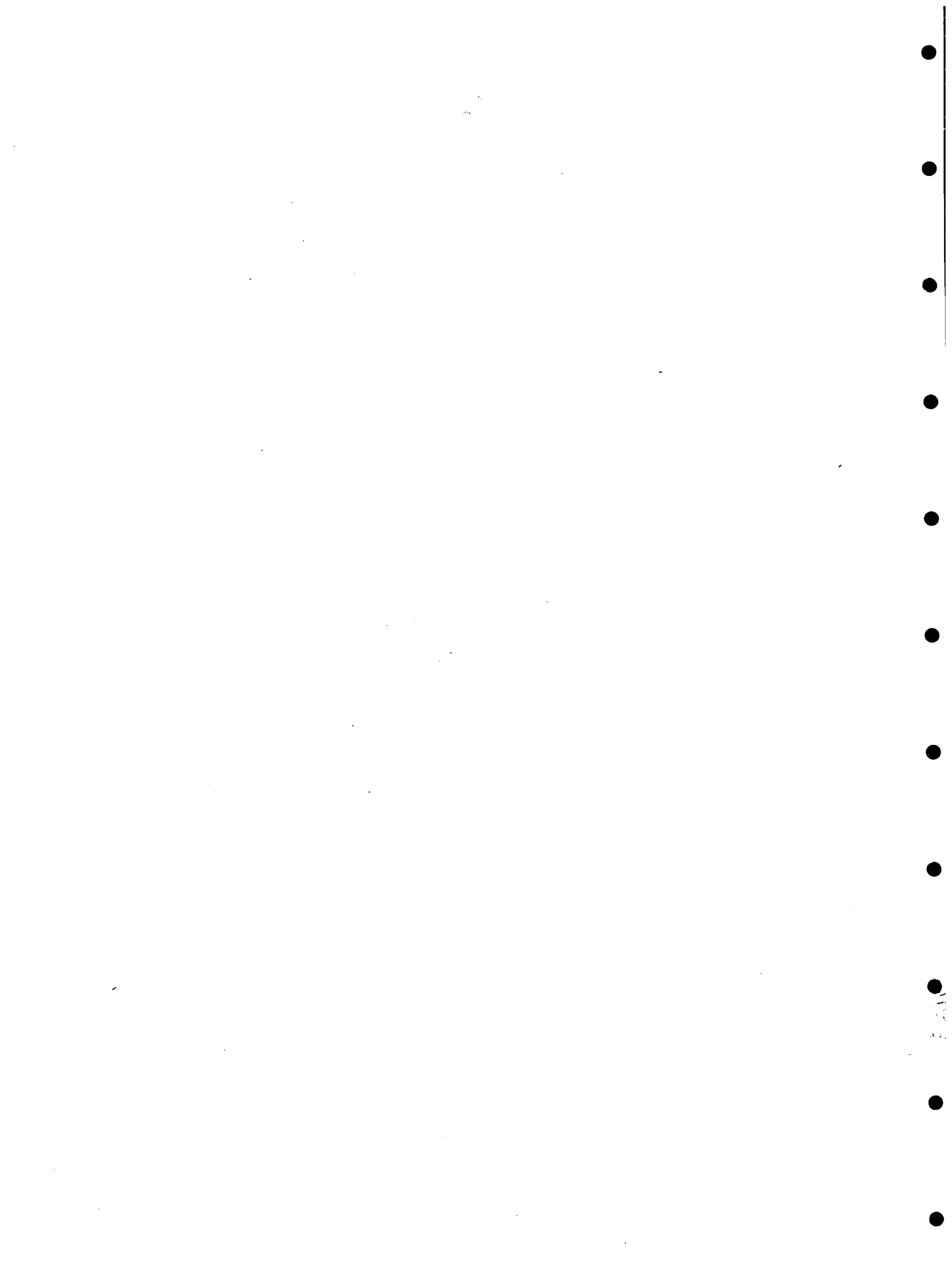
Briefly, we wish to note the results when the mean event duration was assumed to be twelve hours. The other three durations (two, three, and six hours) anticipate that events are completed within one judge-day. The twelve-hour models assume that, on the average, events require two judge-days for completion. Two event duration distributions are considered--the hyperexponential and the uniform. In our models, the hyperexponential distribution has a higher theoretical level of variance than the uniform. Due to the scheduling equation employed, and limitations of the simulation model, only calendars with an even number of judges were examined.

Results for the twelve-hour models generally agree with those for the other mean levels. This gives added strength to our previous inferences about the advantages of accurate prediction of event length insofar as the results hold for a wide range of mean levels.

Several advantages of the master calendar over the individual calendar were shown in this section, most importantly the ability of the master calendar to offset degrees of uncertainty encountered in predicting event durations.
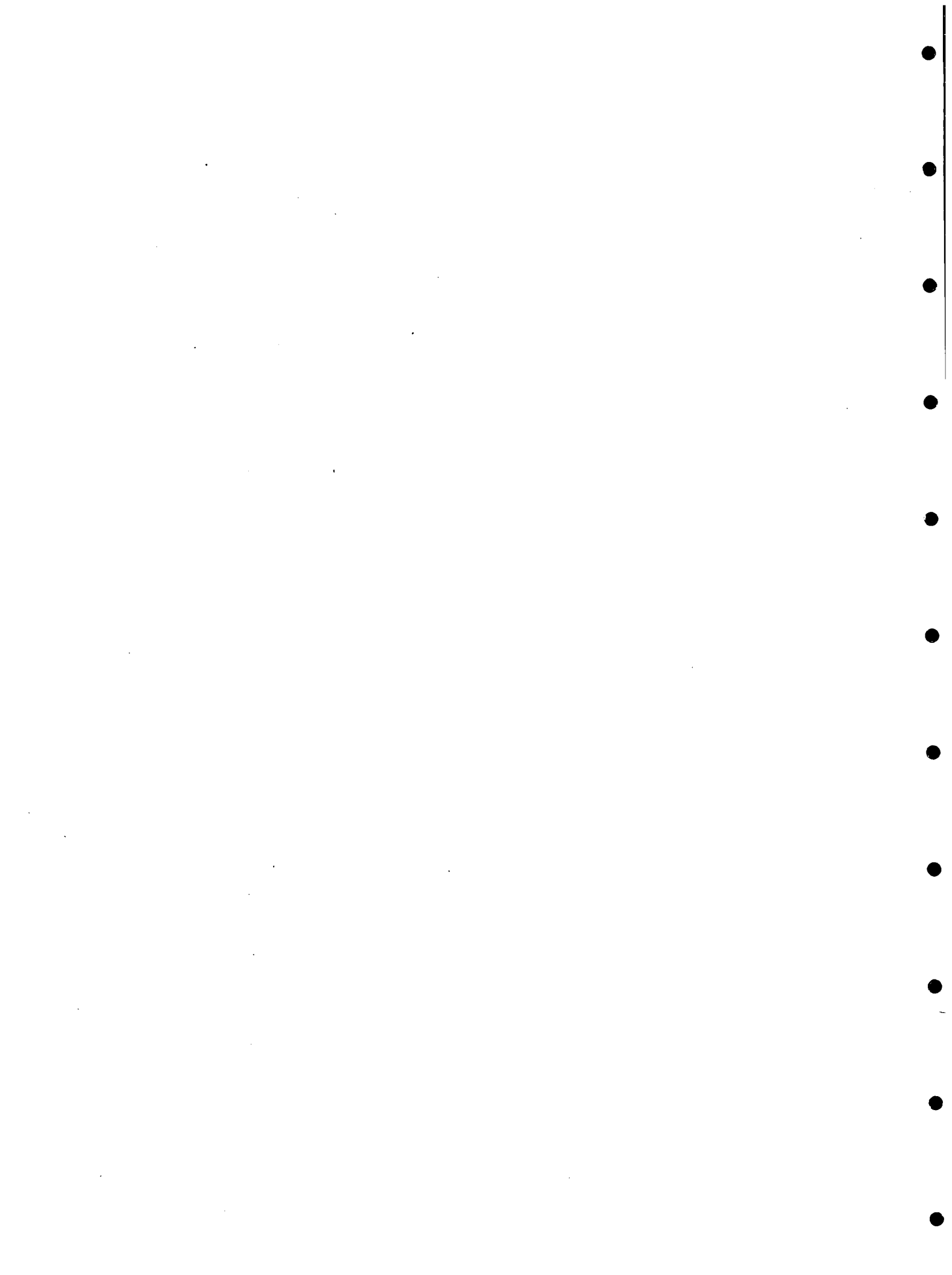
PERFORMANCE IMPLICATIONS OF SELECTING A CASE
ASSIGNMENT SYSTEM AND CALENDAR MODE

Two court policy decisions--case assignment and calendar mode--are considered in terms of their impact on court scheduling performance. We first compare the individual calendar and master calendar case assignment systems. Secondly, we examine the date-certain and continuous calendar modes.

Because court scheduling systems have many objectives, some of which are contradictory, management must set priorities and devise ways of balancing the various objectives. As a result, comparisons are possible only when one considers both system performance measures and system objectives. Simulation provides only the former. Specifically, five quantitative measures of performance--judge utilization, waiting time, completed events, overscheduled events, and carry-overs--are computed.

Alternative case assignment systems

Chapter I discussed the relative performance of the two assignment systems. Here we elaborate on earlier remarks and offer explanations.

Exhibit I-1 (Chapter I) depicts the processing flow of the individual and master calendar case assignment systems. Proponents frequently argue that many motivational factors are associated with the individual calendar. Individual autonomy, responsibility, accountability, familiarity, and competitiveness
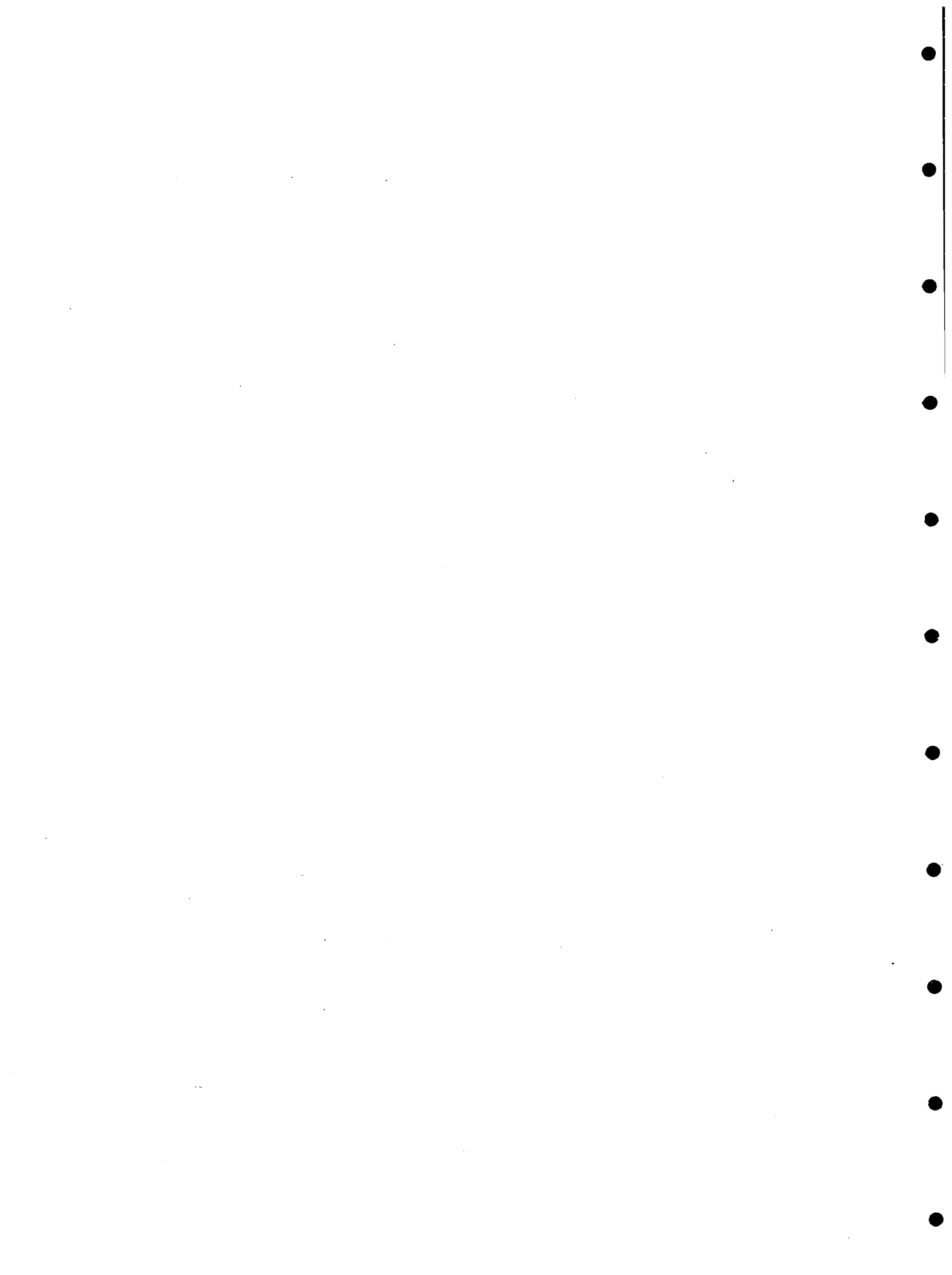
are among those cited. Reputed strengths of the master calendar system include maximal use of judicial resources, minimal over-scheduling, and centralized control of case flow.

With these alleged advantages in mind, the two assignment systems are compared on the basis of simulation results.* Exhibits II-1 through II-3 present comparative performance measures for the individual calendar and the six- and ten-judge master calendar for various activity levels as determined by mean event duration and variability. Three mean levels—two hours, three hours, and six hours—are considered. For each mean level of event duration, results for two measures of event-length variability are shown—the lowest level and the highest level of variability. Thus, we are comparing three case assignment options (individual calendar and two master calendar versions) within six mean/standard deviation categories. The date-certain mode of scheduling was assumed.

In Chapter I we made the assumption that the judges were homogeneous entities. This assumption permits us to conclude that the performance under a one-judge calendar is identical to that under an individual calendar with any number of judges. For example, as indicated by Exhibit II-1, a six-judge individual calendar arrangement operating with a mean event duration and standard deviation each of two hours would result in 81

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*See Chapter I for the details of the simulation methodology.

II-2

EXHIBIT II-1

PERFORMANCE MEASURES UNDER ALTERNATIVE CALENDARS*

MEAN DURATION OF TWO HOURS

	Number of Judges		
	1	6	10
Standard Deviation = 2 Hours			
Judge Utilization			
Measure 1**	.81	.92	.93
Measure 2	.80	.90	.92
Waiting Time			
Measure 1[+]	·2.21	1.90	1.87
Meausre 2	3.20	2.73	2.65
Percentage of Events			
Completed	.80	.93	.94
Events Overscheduled	.59	1.33	1.7
(%)	(.20)	(.07)	(.06)
Events Carried Over	.23	1.70	2.94
(%)	(.08)	(.09)	(.10)

	1	6	10
Standard Deviation = 4 Hours			
Judge Utilization			
Measure 1	.74	.88	.90
Measure 2	.74	.87	.89
Waiting Time			
Measure 1	2.33	1.90	2.70
Measure 2	3.34	2.70	2.65
Percentage of Events			
Completed	.73	.88	.90
Events Overscheduled	.81	2.07	2.90
(%)	(.27)	(.11)	(.10)
Events Carried Over	.32	2.31	4.08
(%)	(11)	(.13)	⁻(.14)

* Based on 1000 days of activity.

**Measure 1 incoudes any overtime, or seventh-hour, work by judges; Measure 2 does not.

+ Measure 1 considered all court events, even those with zero waiting time. Measure 2 includes only those events incurring positive waiting times.

II-3
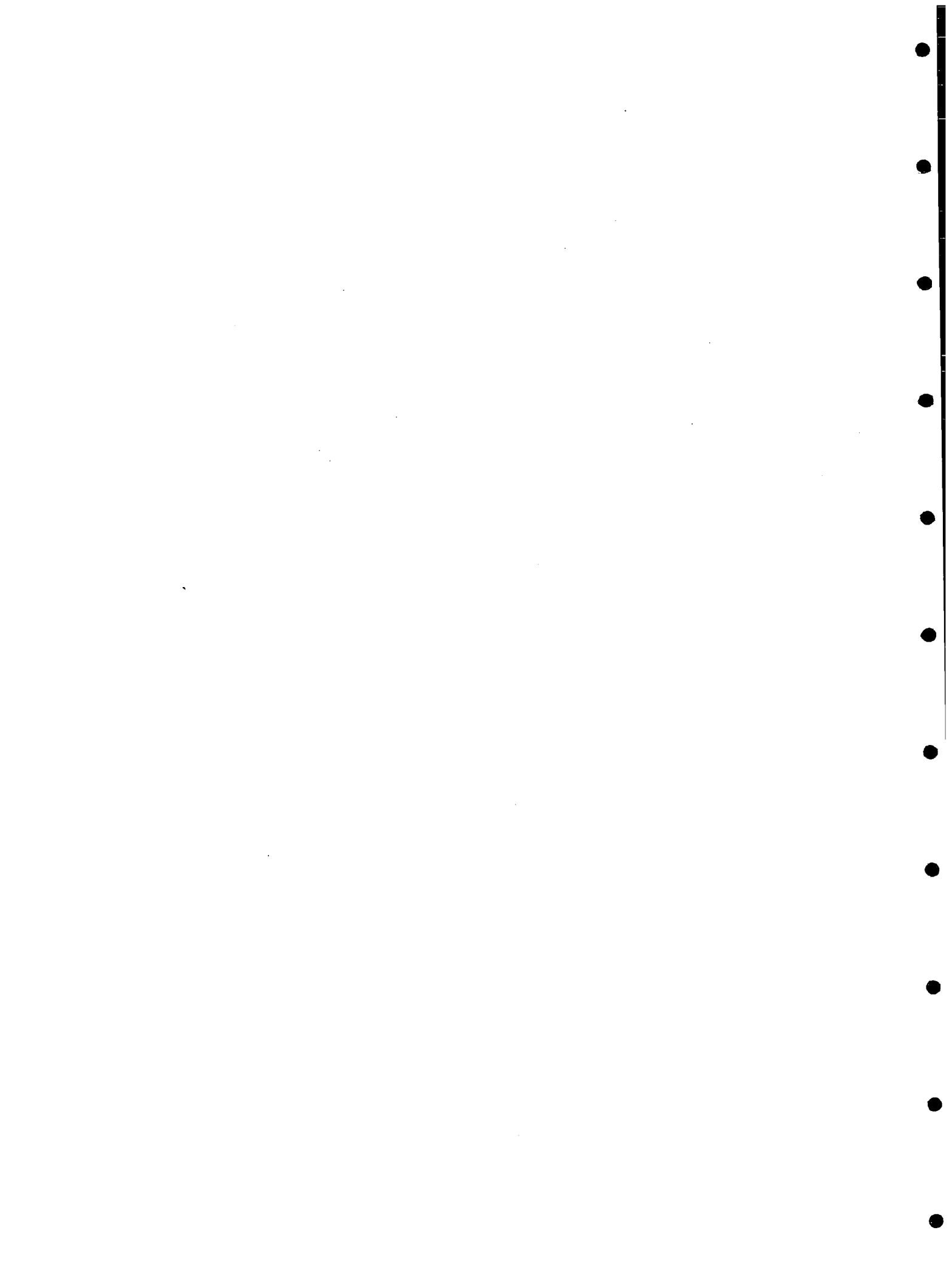
EXHIBIT II-2

PERFORMANCE MEASURES UNDER ALTERNATIVE CALENDARS*

MEAN DURATION OF THREE HOURS

	Number of Judges		
	1	6	10
Standard Deviation = 3 Hours			
Judge Utilization			
Measure 1 **	.79	.91	.93
Measure 2	.78	.90	.91
Waiting Time			
Measure 1 *	1.93	1.58	1.56
Measure 2	3.39	2.73	2.67
Percentage of Events Completed	.79	.92	.94
Events Overscheduled (%)	.43 (.22)	.96 (.08)	1.2 (.06)
Events Carried Over (%)	.33 (.17)	2.3 (.20)	4.05 (.20)
	1	6	10
Standard Deviation = 6 Hours			
Judge Utilization			
Measure 1	.72	.88	.90
Measure 2	.71	.87	.89
Waiting Time			
Measure 1	2.06	1.66	1.58
Measure 2	3.59	2.80	2.64
Percentage of Events Completed	.72	.87	.90
Events Overscheduled (%)	.57 (.29)	1.55 (.13)	1.90 (.09)
Events Carried Over (%)	.35 (.19)	2.76 (.23)	4.76 (.24)

*Based on 1000 days of activity.

**See note at bottom of Exhibit II-1.

II-4
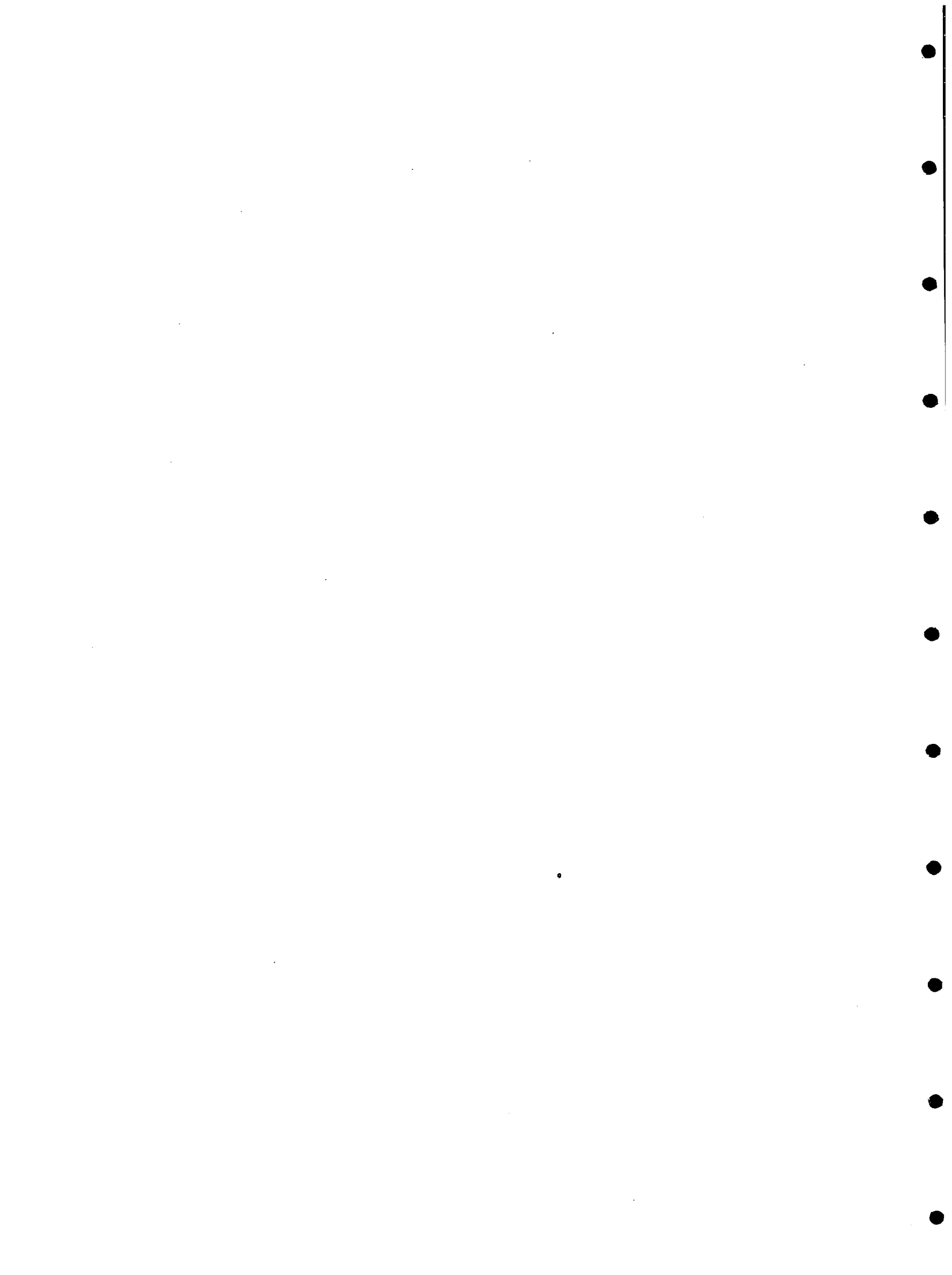
EXHIBIT II-3

PERFORMANCE MEASURES UNDER ALTERNATIVE CALENDARS*

MEAN DURATION OF SIX HOURS

	Number of Judges		
Standard Deviation = 6 Hours	1	6	10
Judge Utilization	.76	.90	.92
Measure 1**	.76	.90	.92
Measure 2	.76	.89	.91
Waiting Time			
Measure 1**	1.39	1.65	1.02
Measure 2	4.40	2.95	2.80
Percentage of Events Completed	.76	.91	.93
Events Overscheduled (%)	.24 (.24)	.56 (.09)	.73 (.07)
Events Carried Over (%)	.46 (.46)	3.33 (.55)	5.70 (.57)

	1	6	10
Standard Deviation = 12 Hours			
Judge Utilization			
Measure 1	.71	.87	.90
Measure 2	.70	.86	.89
Waiting Time			
Measure 1	1.55	1.12	1.09
Measure 2	5.12	3.06	2.86
Percentage of Events Completed	.618	.87	.89
Events Overscheduled (%)	.32 (.32)	.61 (.14)	1.1 (.11)
Events Carried Over (%)	.43 (.43)	3.49 (.58)	6.05 (.61)

*Based on 1000 days of activity.

**See note at bottom of Exhibit I-1.
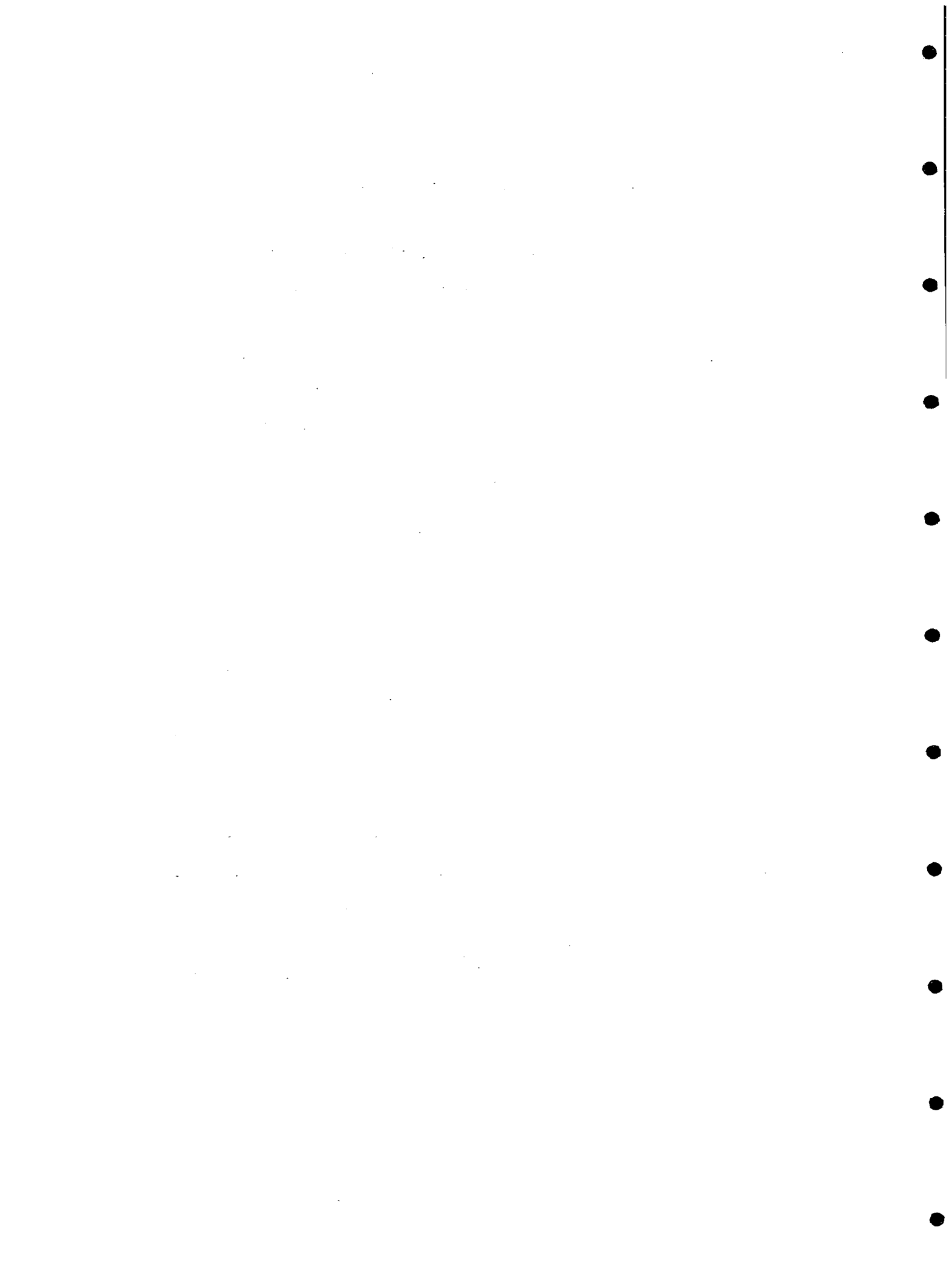
percent and 80 percent judge utilization, depending on which
of the two utilization measures is used.

The three exhibits summarize the results of the simulation.
The results shown here are in a format different from that of
the previous chapter. In Chapter I, the exhibits were ordered
according to performance measure; here, the order is based on
expected event duration. The following discussion will concen-
trate on the group where both the mean and standard deviation
equal two hours. Results for this group are typical of those
found during simulation.

Comparing, for the moment, the individual calendar with the
six-judge master calendar, we find dramatic differences in per-
formance. Judge utilization (using utilization measure 1) in-
creases from 81 percent to 92 percent under the master calendar.
Average waiting time (using waiting time measure 2) decreases
by nearly one-half hour, from 3.2 to 2.73 hours with the master
calendar. Ninety-three percent of the cases are completed under
the master calendar, compared to 80 percent under the individual
calendar. Conversely, 20 percent of the cases are overscheduled
under the individual calendar; only 7 percent are not heard under
the master calendar. A slightly larger number of cases are car-
ried over from one day to the next in the master calendar setup,
9 percent compared to 8 percent.

Next, we compare the six-judge and ten-judge master calen-
dars. Based on our selected measures of performance, the

ten-judge master calendar performs only marginally better. Judge utilization (utilization measure 1) increased from 92 percent to 93 percent; average waiting time (waiting time measure 2) declined from 2.73 hours to 2.65 hours; the event completion rate increased from 93 to 94 percent; the overscheduling rate decreased from 7 to 6 percent; and the carry-over rate increased from 9 to 10 percent.

Consequently, from the results of our modeling, the following conclusions can be drawn. In general, the master calendar performs at a higher level than the individual calendar assignment system. The assertions of increased system performance under identical circumstances by the proponents of the master calendar system are borne out. This is not surprising insofar as it can be shown analytically that the master calendar system outperforms the individual calendar system. Based on classical queueing (waiting line) theory, the probabilities of keeping judges busy and of not overscheduling events are greater under conditions where resources are "pooled." The system is less sensitive to extreme event durations, which cause idle time and/ or overscheduling, when judges and events are "pooled."

It must be emphasized that our model did not take into account human factors such as judicial conscientiousness, commitment, and dedication. There is, however, no reason to assume that these behavioral or attitudinal factors would systematically work to the benefit or detriment of either arrangement.
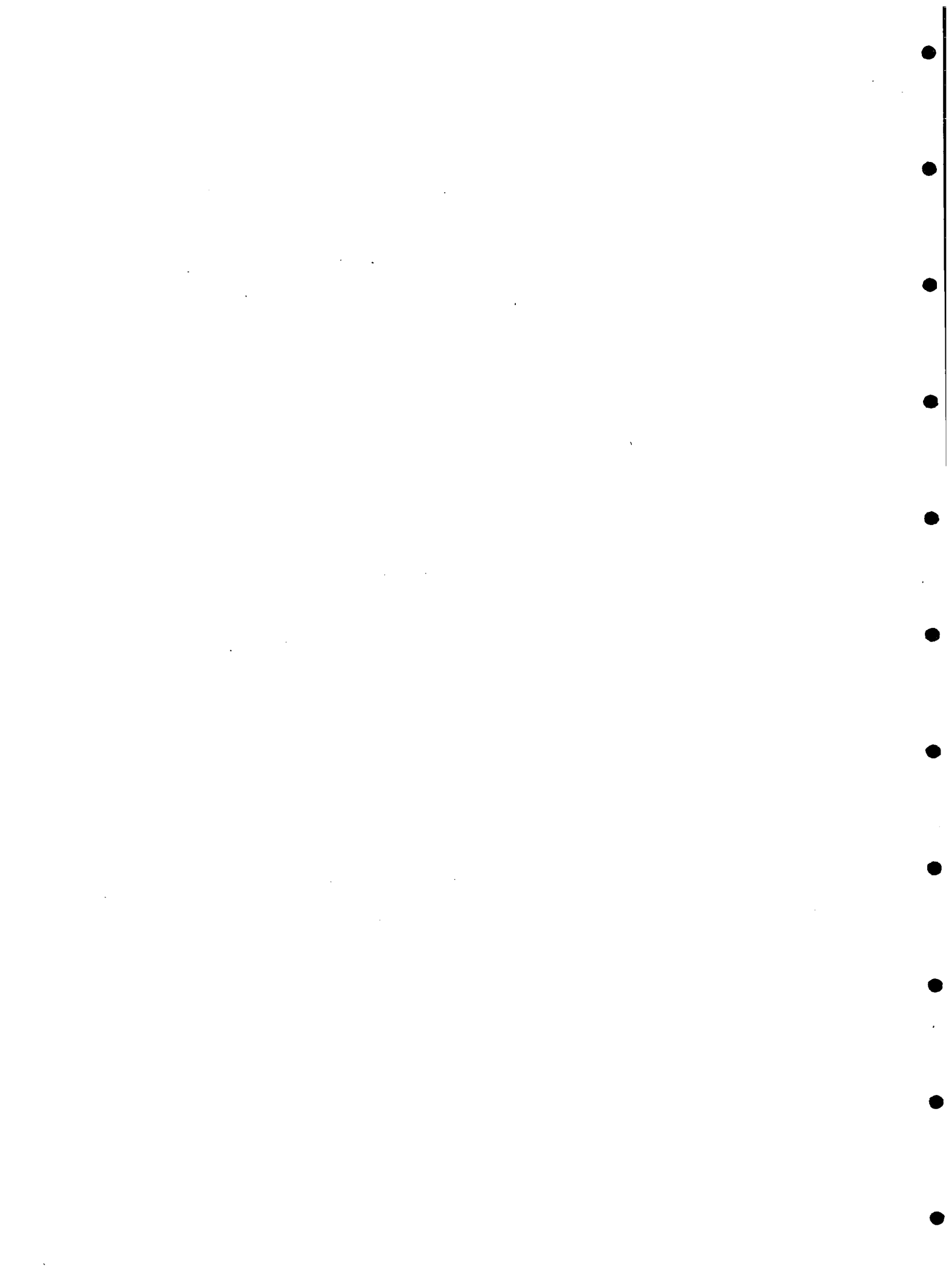
This point is presented in Exhibit II-4, which provides counter-arguments to the commonly alleged strengths of both systems.

A second finding was that the ten-judge master calendar did not perform significantly better than the six-judge master calendar. From the graphs shown later in the chapter, one can see the decreasing incremental benefit of additional judges beyond the fifth or sixth judge. This may suggest that a possible hybrid system--which, given the personalities involved and the desired goals, incorporates worthwhile features of both calendar arrangements--is a preferable alternative. In fact, most assignment systems are neither pure individual calendar nor pure master calendar. Rather, they build on one method and use features of the other as situations dictate.

Even a strict individual or master calendar assignment system may be modified to accommodate unusual circumstances. For example, under an individual calendar setup, events behind a particularly complex and lengthy case, such as a large antitrust case, may be shifted to other judges, in light of speedy trial or other judicial goals. Several examples of hybrid systems are depicted in Exhibit II-5. One example of a hybrid system is a judge team. This hybrid arrangement is simply a set of multi-judge case-processing teams, as shown in Exhibit II-6. Our detection of relatively small differences between the two master calendar systems examined in detail here may be interpreted as support of the judge-team concept, which combines favorable aspects of both pure systems.
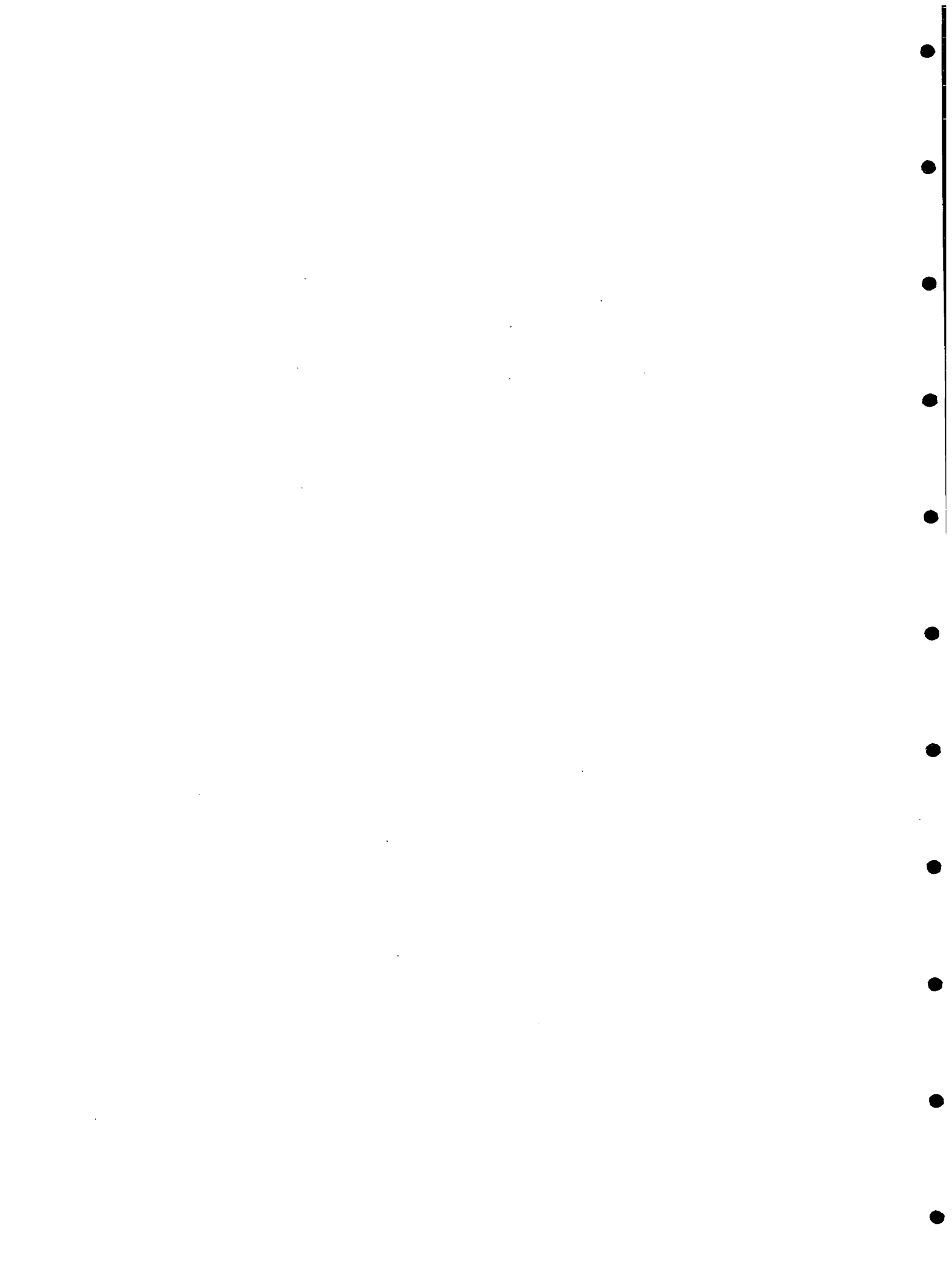
EXHIBIT II-4

Alleged Strengths of Case Assignment Systems

INDIVIDUAL CALENDAR

STRENGTHS OR BENEFITS	COUNTERARGUMENT
1) Individual responsibility is motivational.	Autonomy does not necessarily lead to a feeling of responsibility; but motivation is a function of personality and work habits. Additionally, autonomy diminishes recognition of the court's overall responsibility to speed the entire case load.
2) Accountability.	In individual systems, there is usually no central authority to whom the judges feel accountable. The chief or presiding judge is usually reluctant to impose control upon his peers.
3) Spurs competition among the judges by making each responsible for his cases.	Number of cases or age of backlog are poor comparative measures of work load. Furthermore, Internal comparative statistics are not readily available.
4) Early control allows for consolidation of intermediate proceedings.	Requires organizational effort on the part of the judges. These benefits can be realized under a master calendar system too (pretrial conference).
5) Familiarity with the case history allows for consistency and continuity in intermediate rulings.	This is only important in complex cases, which are very rare in the state trial courts. Besides, such cases can be handled by special assignment procedures under the master system as well.
6) Discourages dilatory motions.	Establishing timetables for stages in case processing can eliminate this practice under the master system.
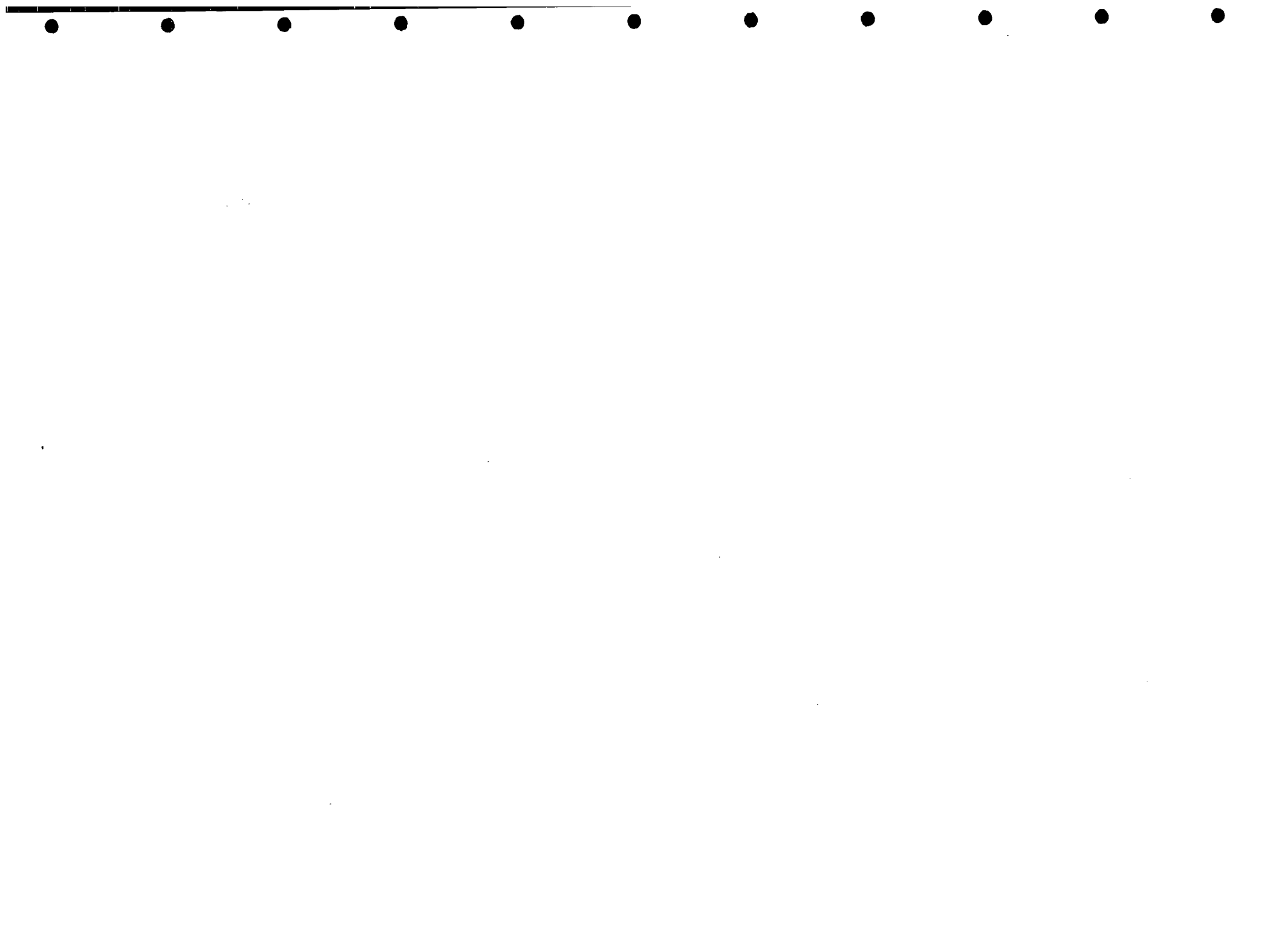
EXHIBIT II-4 (Continued)

INDIVIDUAL CALENDAR

STRENGTHS OR BENEFITS	COUNTERARGUMENT
7) Judge shopping reduced.	Any random blind draw procedure will reduce judge shopping.
8) Better assessment of expected case duration by the judge (for scheduling).	Master system smooths out scheduling errors and reduces inefficiency.
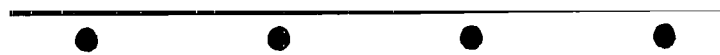
Exhibit II-4 (continued)

MASTER CALENDAR

STRENGTHS AND BENEFITS	COUNTERARGUMENT
1) Maximal utilization of judge time.	Potential maximization only. Actual effectiveness is related to extent of judicial cooperation.
2) Greater certainty that a case will be reached, thereby reducing participant inconvenience.	Scheduling certainty requires a good deal of information and predictive capability not readily available in court systems.
3) More equal treatment of litigants since disposition speed is equalized. Delay is a system attribute rather than being associated with a single judge.	Capacity of the master system to equalize disposition rates may be offset by other factors such as priority scheduling or attorney-induced delay. Individual calendar systems attempt to achieve the same end by redistribution of cases.
4) More uniform application of court policies regarding assignment, continuances, etc. Greater surveillance of overall case load.	Potential advantage only since it requires active control and vigilance by presiding judge.
5) Allows specialization in specific areas of competence of individual judges (motions, conferences, trials, etc.).	Use of judge's expertise is also possible in individual assignment by fragmentation of court functions. Rotation is necessary.
6) Uniformity of pretrial procedures (easy for attorneys).	Significance varies from court to court.
7) Reduces attorney conflict.	Requires effective recordkeeping and communication.
8) Economies of scale in administrative and prosecutorial staff.	Possibility of centralized individual assignment is available. No actual cost comparisons were ever made.
9) Team spirit (rather than competition).	A feeling of common purpose and responsibility is more a function of leadership and individual judge characteristics than the type of assignment system.

II-11
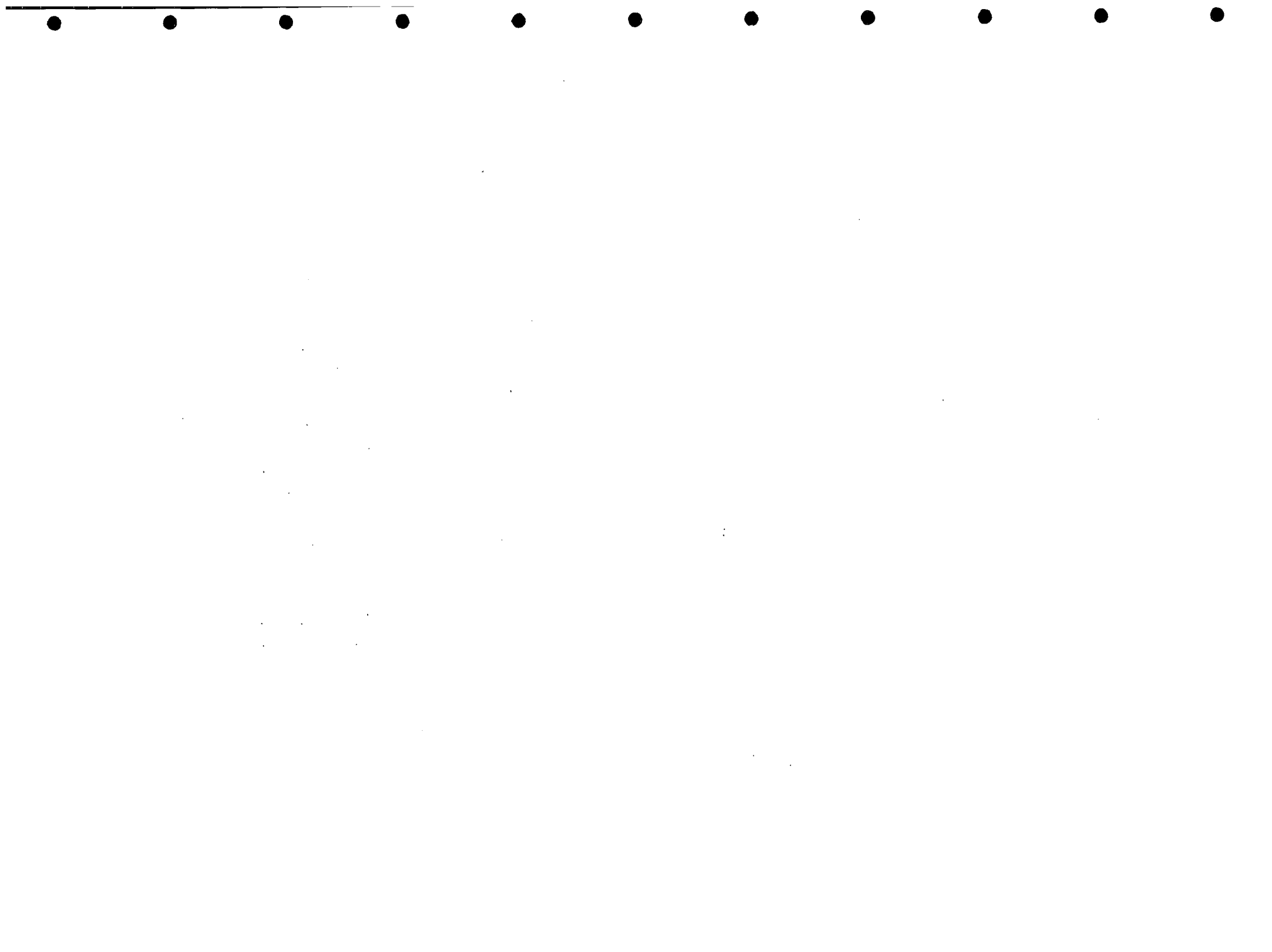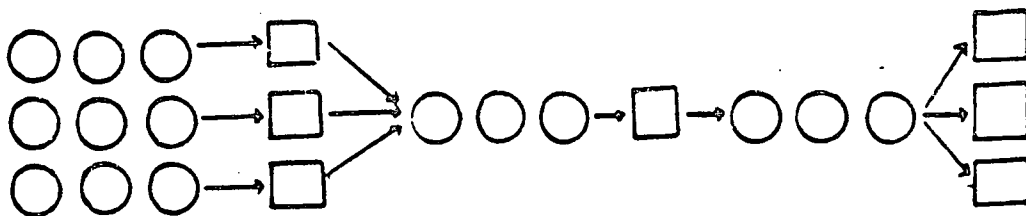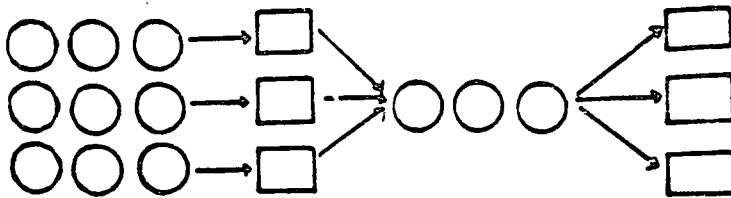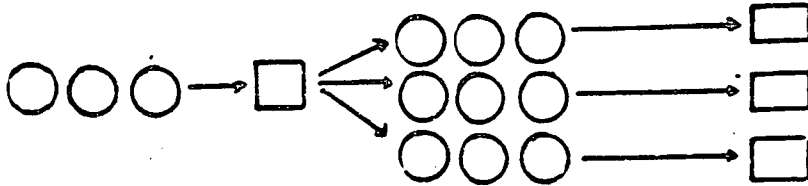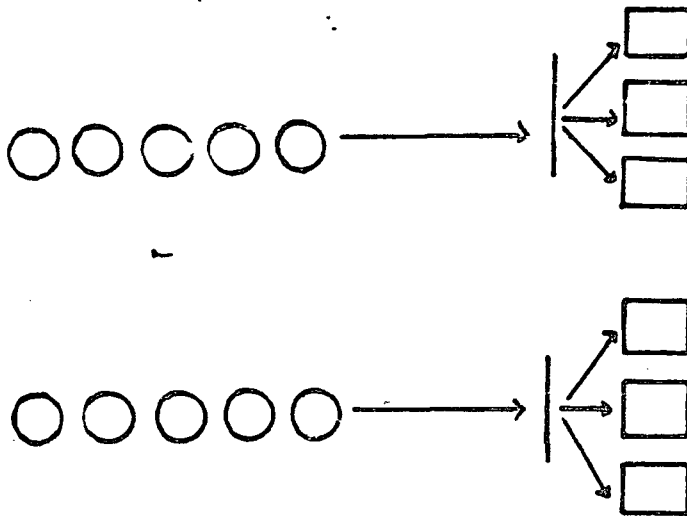
EXHIBIT II-5

HYBRID SYSTEMS

$\bigcirc$ = EVENTS

$\square$ = JUDGES

II-12

EXHIBIT II-6

MULTIJUDGE CASE PROCESSING
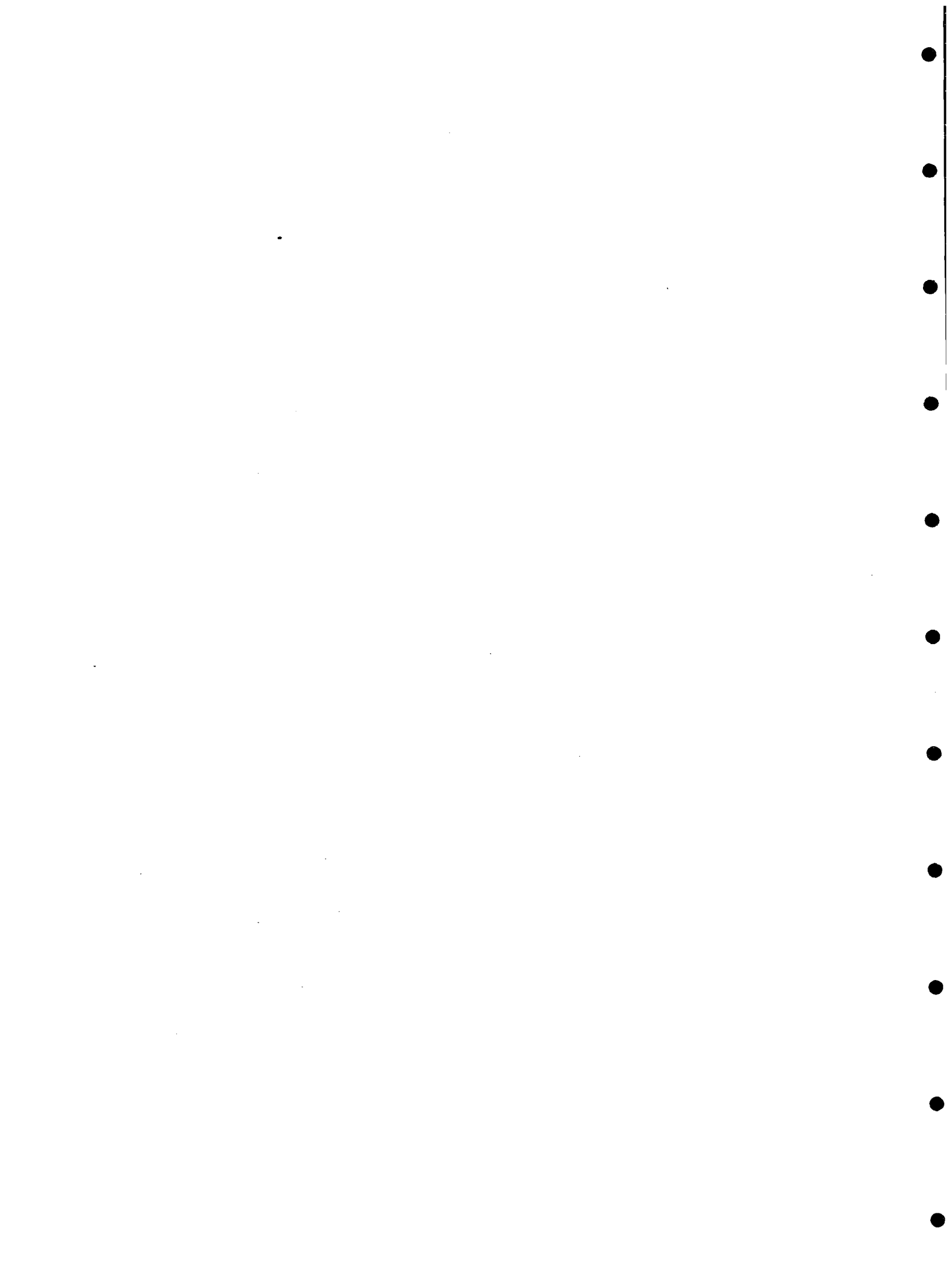
It is essential that we recognize that case assignment determination does not exist in a vacuum, and that there are other factors which merit consideration. One such factor is the personalities involved in the system. As stated above, system throughput depends to a large extent on personal commitment and diligence. Many parties, who are influenced only by peer pressure and moral suasion, have the power to make the system successful or not.

System goals must be considered also. Indeed, there are many system goals which may be contradictory in nature. Laudable system goals include speedy trial, fairness, equal treatment of litigants, and quality of justice. The criminal justice system has a responsibility to the litigants and the community to ensure high quality of the judicial process regardless of the organization of the scheduling system.

Case-load characteristics, such as case mix and complexity, are also important in choosing a system. The other parties in the litigation must be considered, too. For instance, it is necessary that schedule conflicts among attorneys and witnesses be avoided or minimized.

The above examples illustrate factors that play a significant role in achieving successful case-flow management, be the assignment system individual calendar, master calendar, or hybrid.

Depending on the attitudes of participating judges, designating a system as "individual calendar" or "master calendar" may,

II-14
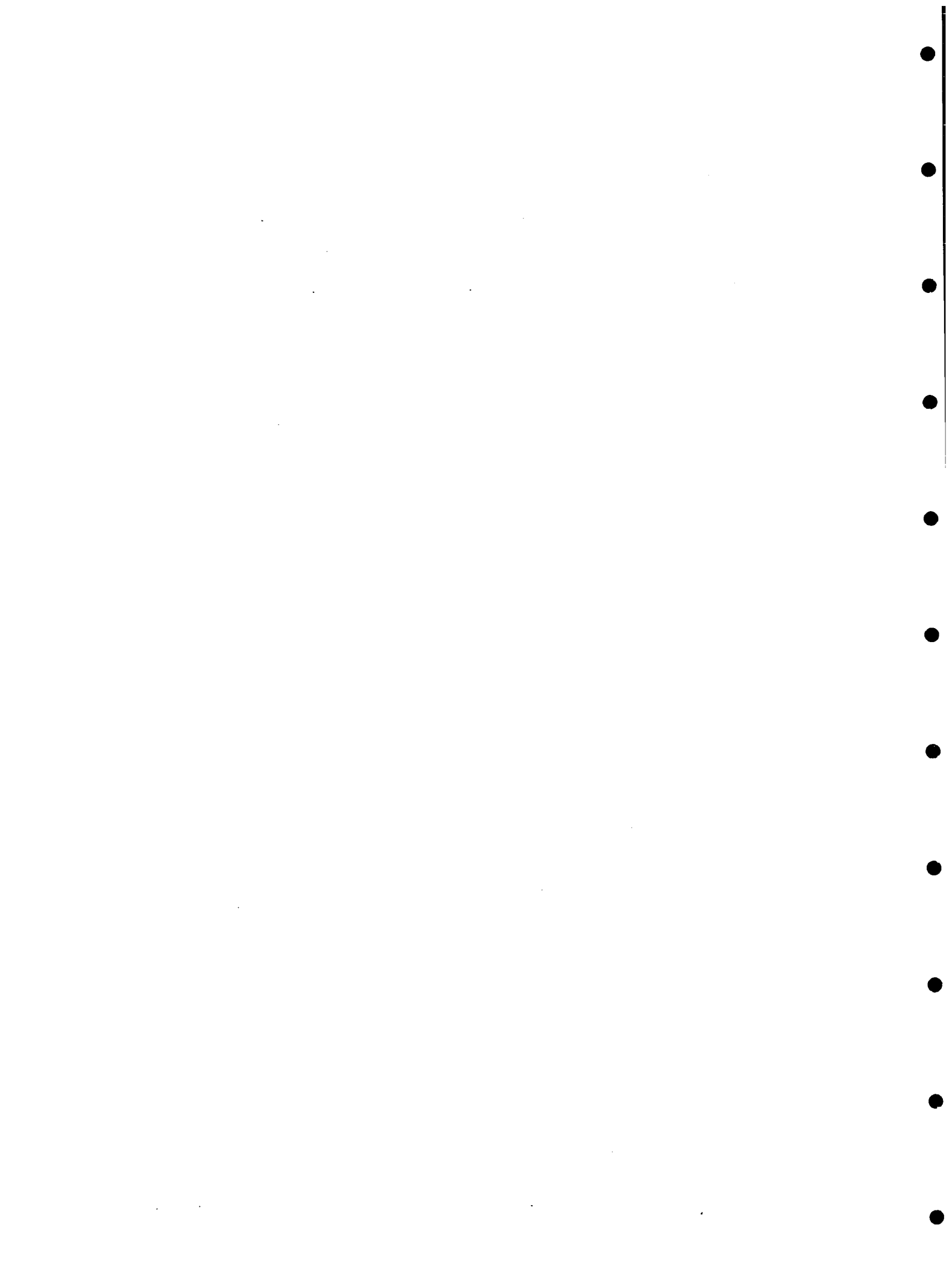
to a large extent, doom the system to failure. The controversy surrounding the two terms arouses strong passions among the proponents of each. Thus, extreme caution should be exercised in labeling the case assignment system. Since, in practice, most systems combine elements of both calendar systems, the above labels are usually neither accurate nor appropriate. Consequently, little emphasis should be placed on these labels. A preferable approach to designing court management systems is to first determine judicial goals, considering the resources available, case characteristics, and participants; then, through joint planning, devise a system to achieve the various goals of the affected parties within practical constraints.

Evaluating calendar modes

A second component of court organization is calendar mode. Two modes are examined: date-certain and continuous. The date-certain mode is described as follows: Given an expected event duration and resource availability, a specified number of cases is scheduled each day through the application of the scheduling equation. In the continuous calendar mode, we schedule a number of cases for a specific week. Within the week, events are heard as cases ahead in the queue are completed. Litigants are allowed one hour from notification to the beginning of the case. Thus, for the litigants under the continuous mode, no waiting time is encountered. This mode does, however, result in judge idle time. This is the primary trade-off investigated.

Methodological considerations

At the outset it should be noted that, under the continuous calendar mode model originally proposed, our equation (see Chapter I) for scheduling events is not wholly appropriate; some adjustment to account for the fixed hour delay between consecutive events should be included. The problem is stated below. For example, assuming a mean event duration of three hours, in a thirty-hour judge week, the current form of the equation would indicate that ten events should be scheduled. If the anticipated delay were considered, the duration would become four hours. However, using four hours as the expected mean time would subject the delay term to randomization. Alternatively, a modified version of the equation would not yield the same case flow structure which is desired for comparisons. A surrogate procedure to isolate the effect of the hour delays will be described later.

If all events took three hours, a judge would work, with an hour of overtime, seven hours of elapsed time, completing two cases. He would be busy six of the seven elapsed hours. Using six hours as the expected event length with no variation, the equation presents no problems in this respect. Since the expected event duration and the judge workday are both six hours, each judge would handle one case per day based on the scheduling equation. Under those circumstances, the one-hour notification period would be insignificant with respect to scheduling.
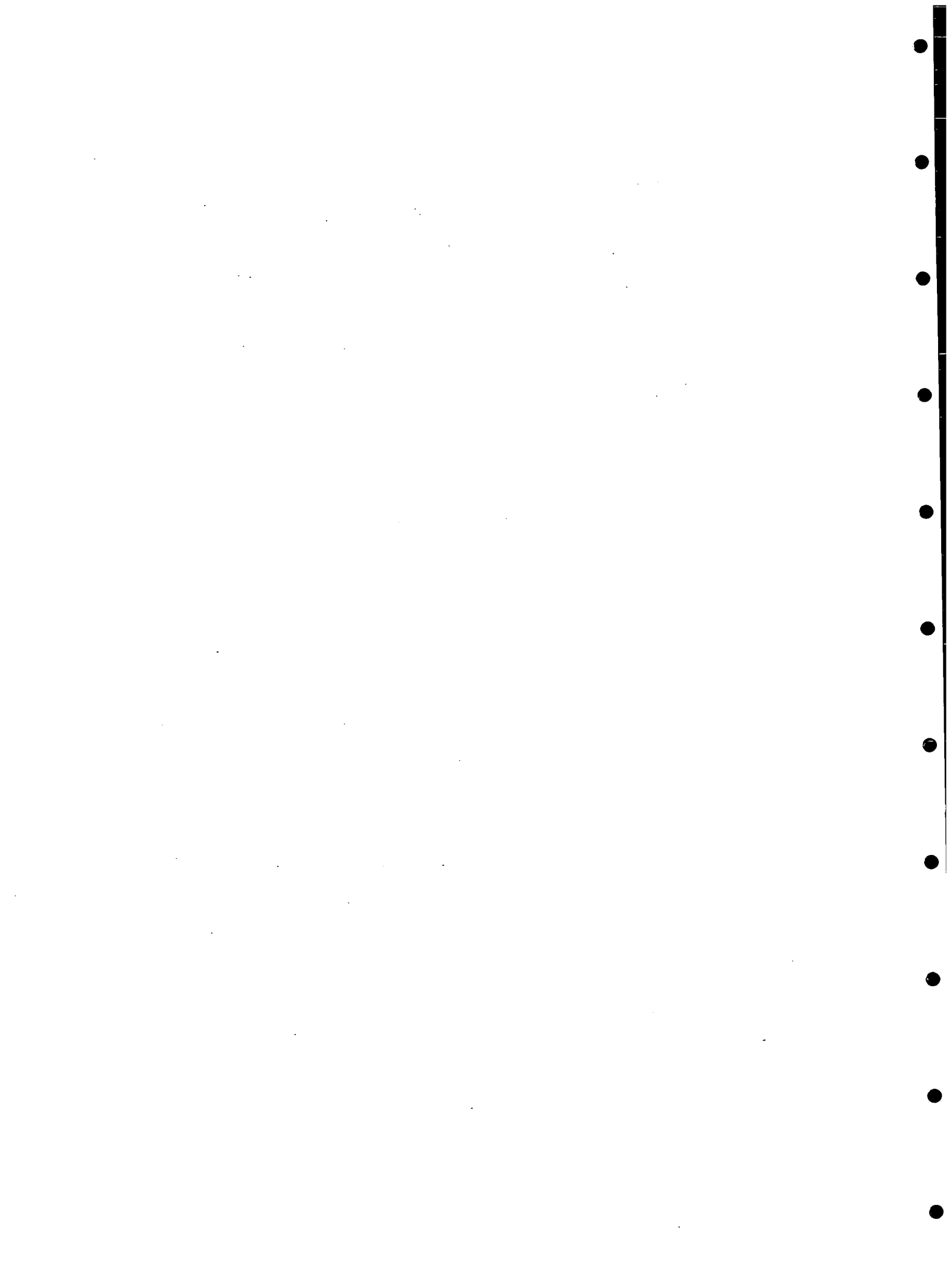
Thus, the problem exists of determining a reasonable equation for scheduling events on a weekly basis while taking the hour time lag into account, and, at the same time, permitting strong comparisons between the alternative calendar modes. Although no satisfactory solution to the problem of the scheduling equation was available, the following remedial measure was taken.

It is possible to separate the system's components of interest. One component is the waiting time encountered by litigants and witnesses. By assumption, we observe zero waiting time for all events in the continuous mode; in the day-certain mode, positive waiting times are observed, as several previous exhibits show.

A second component is the effect on judge utilization of the one-hour notification period. In the model assuming a one-hour notification time, the judge is free not only due to uncertainties in event length but also due to the case processing alogorithm. Thus, the key trade-off is judge activity rate versus litigant and witness convenience.

A third component, the scheduling method, has an effect on system performance. In the continuous calendar mode models, we schedule on a weekly, rather than daily, basis. Benefits accrue to the system by scheduling on the basis of weekly expectation, as opposed to daily expectation, in a manner similar to the way the system benefits when judicial resources are "pooled" under the master calendar. The system is less subject to daily

II-17
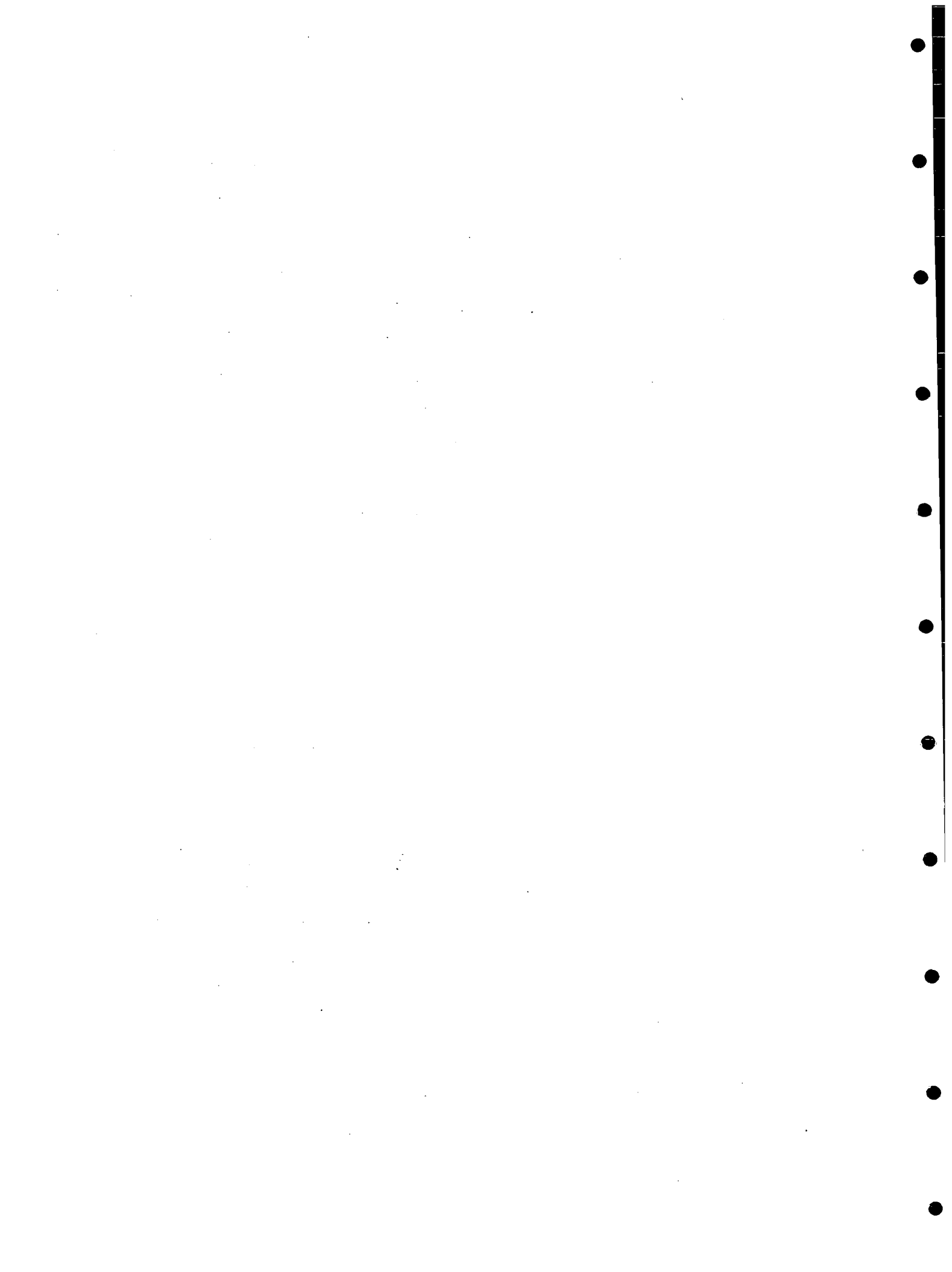
fluctuations in actual event duration under the weekly scheduling procedure. The law of large numbers is at work here. Simply, event lengths are more likely to even out during a week than during a single day. For instance, if all events scheduled for a particular day require only a portion of their allotted time, judges are not fully utilized that day. On the other hand, under the weekly scheduling arrangement, participants in the the event next in the queue are notified.

In consideration of these components, three models were employed in the analysis. The first model is the date-certain model, which was used previously. These computer runs were made for the other analysis; therefore, no additional computational effort was necessary. The second model is the continuous calendar mode model without the assumption of the one-hour delay. This model, termed "unadjusted," enables us to view the impact of weekly scheduling. The third model, the "adjusted" version of the continuous calendar model, includes the hour delay.
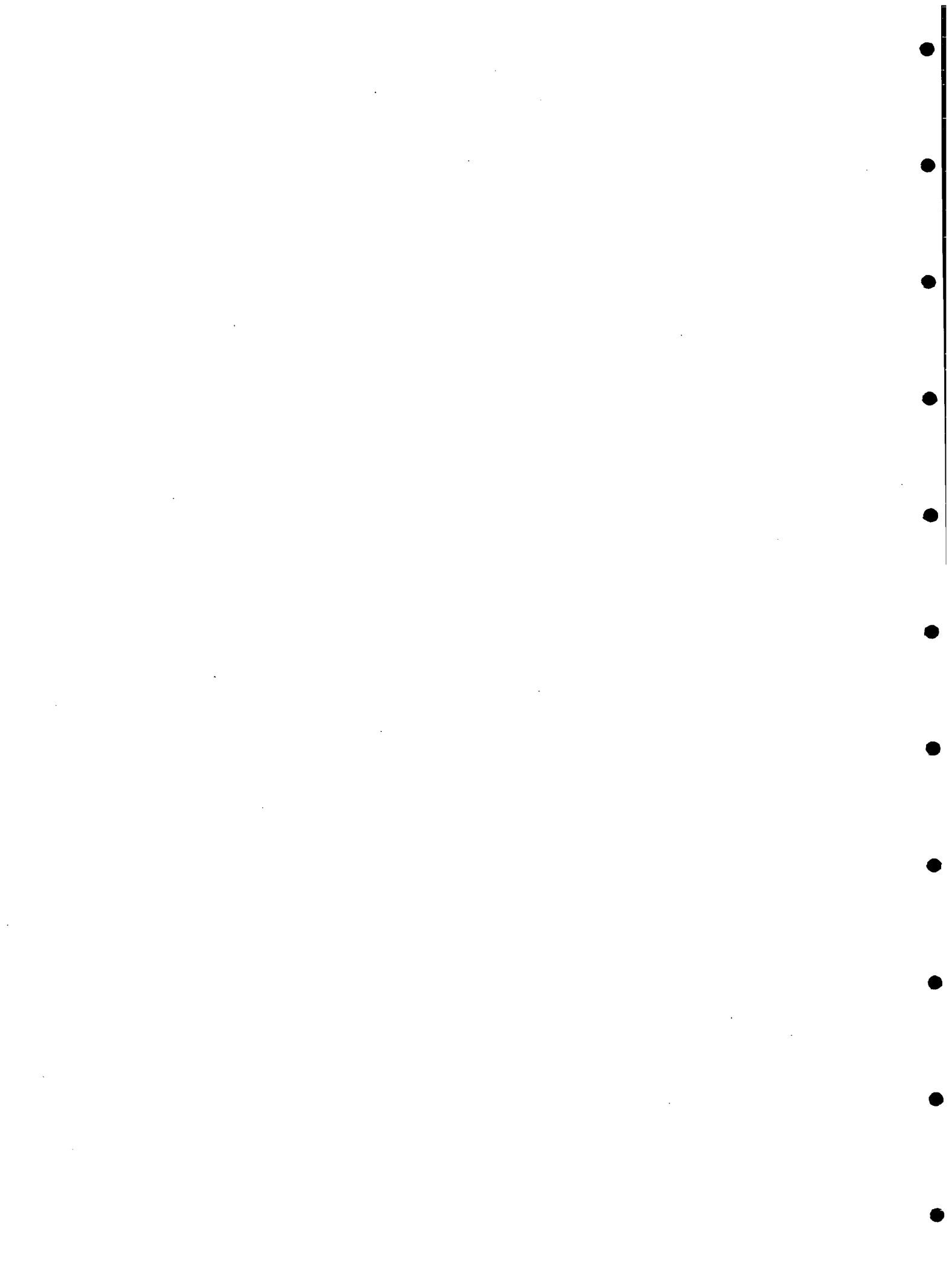
The second and third models differ only as follows: The second model assumes that, as events are completed, the parties to the next event are notified and the proceeding starts one hour later. On the other hand, the "unadjusted" model assumes that at some point during the week, parties are notified that their event is to appear "soon," and are ready immediately as a judge becomes free. Some waiting time may be incurred by the parties.

Nontrivial algorithms for notification of parties with the joint goals of minimizing participant waiting time and maximizing judge utilization could be determined. Algorithms designed to achieve multiple objectives are extremely complex and beyond the scope of this exercise. For our purposes, the assumption of such an algorithm will suffice. In this analysis, the "unadjusted" model serves only as an upper bound on judge utilization, as under this version judge free-time is a function only of event-length fluctuations. The second objective, minimizing waiting time, will not be considered here. By using this approach we are able to isolate the benefits of weekly scheduling and the impact of the hour-notification procedure.

Two mean levels of event duration--three hours and six hours--were considered, with three variability measures associated with each level. Next the relative merits of each alternative are discussed.

Judge utilization
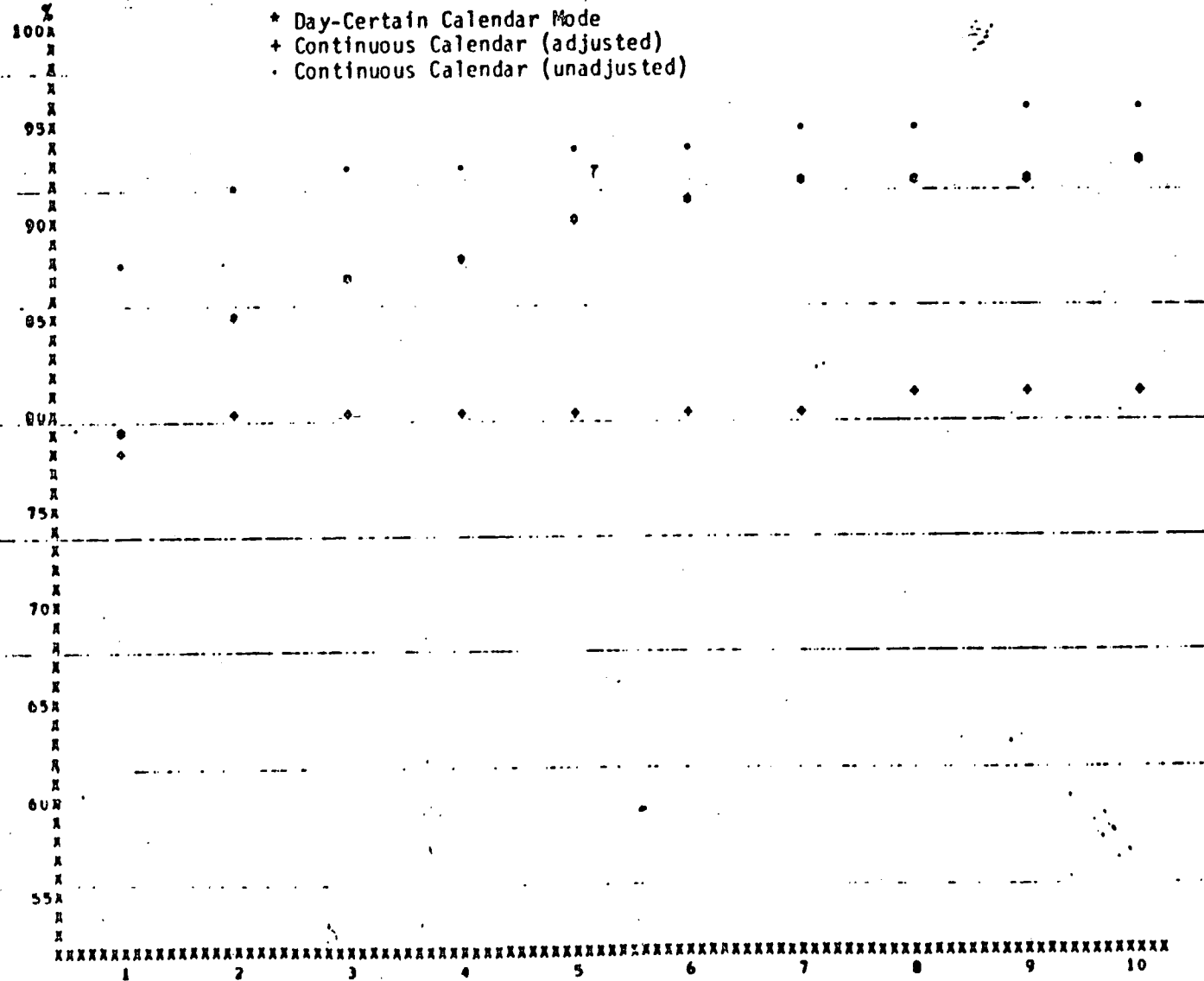
Exhibits II-7 - II-12 graphically portray judge utilization using utilization measure 1; similar results are found for measure 2) under the three models for the six mean/standard deviation categories. The unadjusted model results in the highest level of judge utilization. This model benefits from the weekly scheduling arrangement, and is not penalized by delays resulting from notification of parties. In cases where the mean event length is three hours, the date-certain calendar performs better in terms of utilization than the continuous adjusted model. These

II-19

COMPARISON OF DAY-CERTAIN AND CONTINUOUS CALENDARS - EXHIBIT II-7
JUDGE UTILIZATION (MEASURE 1)
MEAN EVENT DURATION = 3 HOURS, STANDARD DEVIATION = 3 HOURS

* Day-Certain Calendar Mode
+ Continuous Calendar (adjusted)
· Continuous Calendar (unadjusted)

NUMBER OF JUDGES AVAILABLE

COMPARISON OF DAY-CERTAIN AND CONTINUOUS CALENDARS - EXHIBIT II-8
JUDGE UTILIZATION (MEASURE 1)
MEAN EVENT DURATION = 3 HOURS, STANDARD DEVIATION = 4.5 HOURS

* Day-Certain Calendar Mode
+ Continuous Calendar (adjusted)
· Continuous Calendar (unadjusted)

NUMBER OF JUDGES AVAILABLE

II-21

JUDGE UTILIZATION (MEASURE 1)
MEAN EVENT DURATION = 3 HOURS, STANDARD DEVIATION = 6 HOURS

* Day-Certain Calendar Mode
+ Continuous Calendar (adjusted)
. Continuous Calendar (unadjusted)

NUMBER OF JUDGES AVAILABLE

II-22

JUDGE UTILIZATION (MEASURE 1)
MEAN EVENT DURATION = 6 HOURS, STANDARD DEVIATION = 6 HOURS

```
  %
100%           * Day-Certain Calendar Mode
  X            + Continuous Calendar (Adjusted)
  X            · Continuous Calendar (Unadjusted)
  X
  X
  X
 95X                                                                    ·
  X                                              ·         ·         ·         ·
  X                                   ·
  X                        ·               ·         ·                              ·
 90X           ·                                ·         ·         ·         ·
  X                                                                         ·
  X                             ·         ·         +         +         +         +
  X                        ·         +                                            +
  X         · ·                 ·
 85X                   ·
  X
  X         +         ·
  X
 80X
  X         ·
  X
  X         ·
 75X
  X
  X
  X
 70X
  X
  X
  X
 65X
  X
  X
  X
 60X ·
  X
  X
  X
  X
 55X
  X
  X
 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
       1         2         3         4         5         6         7         8         9        10
```

NUMBER OF JUDGES AVAILABLE

JUDGE UTILIZATION (MEASURE 1)
MEAN EVENT DURATION = 6 HOURS, STANDARD DEVIATION = 9 HOURS

* Day-Certain Calendar Mode
+ Continuous Calendar (Adjusted)
. Continuous Calendar (Unadjusted)

%
100%
95%
90%
85%
80%
75%
70%
65%
60%
55%

1   2   3   4   5   6   7   8   9   10

NUMBER OF JUDGES AVAILABLE

11-24

COMPARISON OF DAY-CERTAIN AND CONTINUOUS CALENDARS - EXHIBIT II-12
JUDGE UTILIZATION (MEASURE 1)
MEAN EVENT DURATION = 6 HOURS. STANDARD DEVIATION = 12 HOURS

* Day-Certain Calendar Mode
+ Continuous Calendar (Adjusted)
· Continuous Calendar (Unadjusted)

NUMBER OF JUDGES AVAILABLE

II-25
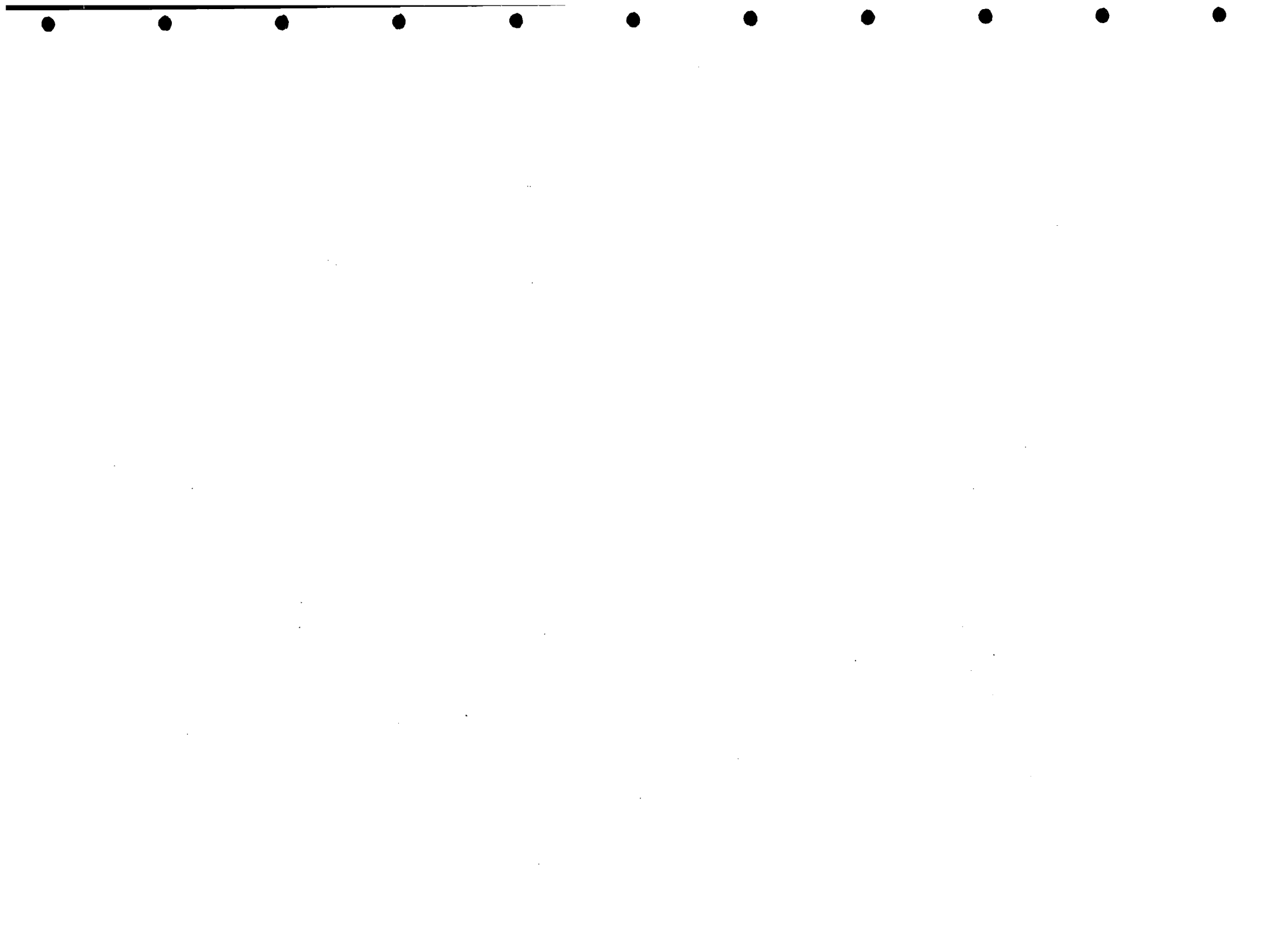
results are presented in Exhibit II-13.

It is interesting to note that judge utilization remains almost constant over all levels of judicial availability in the adjusted model; the master calendar appears to be of slight benefit only. Given a standard deviation of three hours, utilization in the one-judge case is 78 percent, while under the various master calendars, it is 80 to 81 percent.

Earlier we noted that judges would often have one hour per day of free time while awaiting the next event. Thus, judges would be busy five of six hours, on the average, or 83 percent of the time. The date-certain model utilizes judge time 79 percent of the time under the individual calendar, and 91 to 93 percent of the time under master calendars with five to ten judges (Exhibit II-13). The upper bound on utilization, as represented by the unadjusted model, is 88 percent for the one-judge calendar, and 94 to 96 percent for the five- to ten-judge master calendars. Similar results are found for other standard deviation levels. The impact of the hour delay is evident from this exhibit. For instance, under the individual calendar, judge utilization is ten percentage points higher--78 to 88 percent when the standard deviation is three hours--in the un-adjusted model. For the ten-judge master calendar, the difference increases to 15 percentage points.

Exhibit II-14 presents cases where event duration is six hours. The adjusted continuous model outperforms the date-certain model when there are three or fewer judges; the

II-26

EXHIBIT II-13

ALTERNATIVE CALENDAR MODES
JUDGE UTILIZATION (MEASURE 1)*
MEAN EVENT DURATION OF THREE HOURS

Number of Judges	Standard Deviation=3 Hours	Standard Deviation=4.5 Hours	Standard Deviation=6 Hours
1	.79, .78, .88**	.76, .77, .85	.72, .74, .81
2	.85, .80, .92	.82, .79, .88	.81, .78, .87
3	.87, .80, .93	.85, .79, .90	.83, .79, .88
4	.88, .80, .93	.86, .79, .91	.85, .79, .90
5	.90, .80, .94	.88, .79, .92	.87, .79, .91
6	.91, .80, .94	.89, .80, .93	.88, .80, .92
7	.92, .80, .95	.89, .80, .93	.88, .80, .91
8	.92, .81, .95	.90, .80, .94	.89, .80, .93
9	.92, .81, .96	.91, .80, .94	.89, .80, .93
10	.93, .81, .96	.91, .80, .95	.90, .80, .93

* Percentage of busy judge time, average over 1000 6-hour days per judge.

**The first percentage represents utilization for the day-certain calendar mode. The second and third percentages are for the adjusted and unadjusted forms of the continuous calendar mode models, respectively.
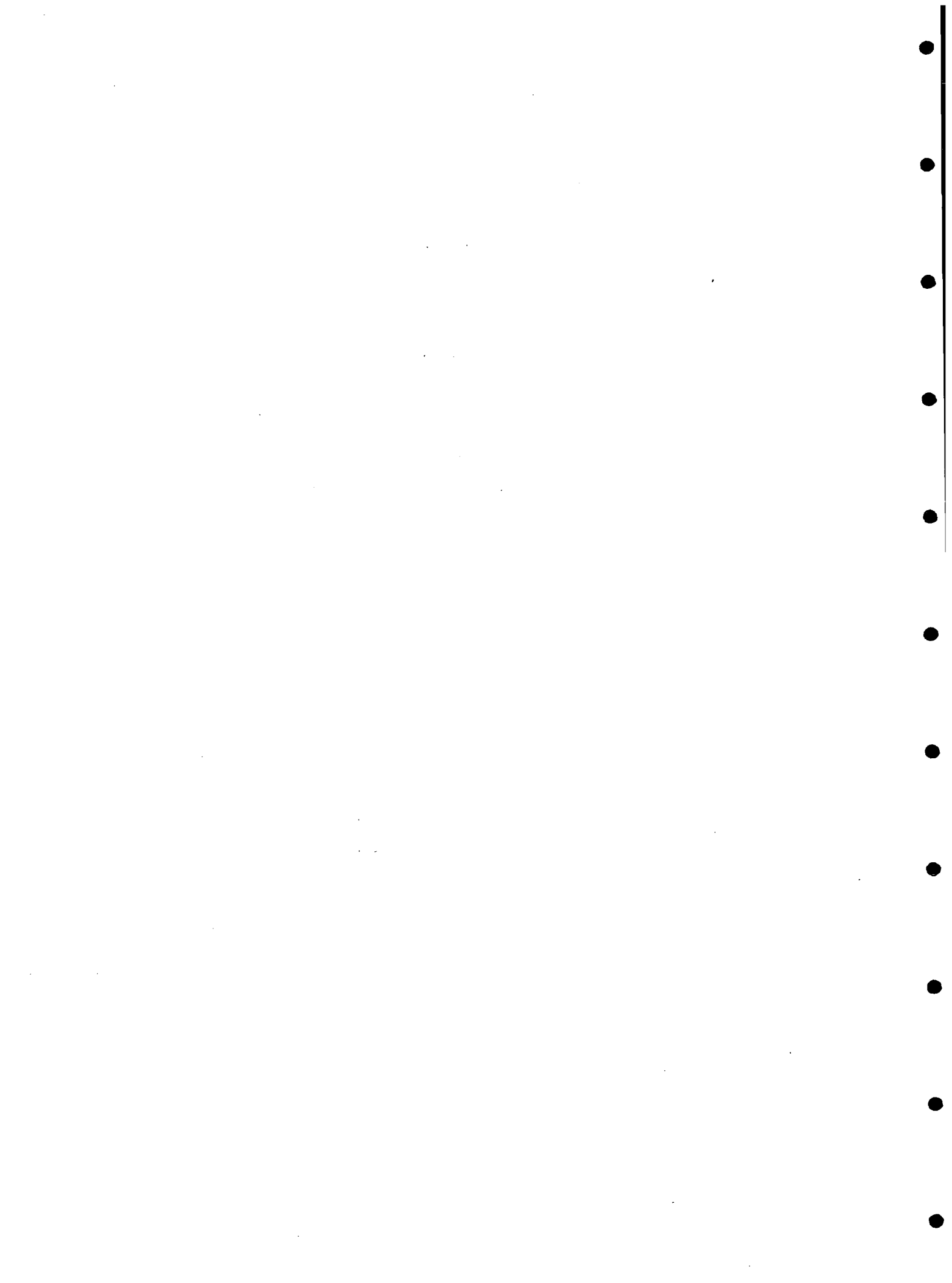
EXHIBIT II-14

ALTERNATIVE CALENDAR MODES
JUDGE UTILIZATION (MEASURE 1)*
MEAN EVENT DURATION OF SIX HOURS

Number of Judges	Standard Deviation=6 Hours	Standard Deviation=9 Hours	Standard Deviation=12 Hours
1	.76, .82, .86 **	.74, .80, .83	.71, .76, .78
2	.82, .85, .90	.81, .83, .86	.76, .79, .83
3	.86, .87, .92	.84, .85, .90	.82, .83, .88
4	.83, .87, .92	.86, .86, .91	.85, .85, .89
5	.88, .87, .93	.86, .86, .91	.86, .85, .90
6	.90, .88, .94	.88, .87, .92	.87, .86, .90
7	.90, .88, .94	.88, .87, .93	.87, .86, .91
8	.90, .88, .94	.89, .83, .93	.88, .86, .92
9	.91, .88, .95	.90, .88, .93	.89, .87, .92
10	.92, .89, .95	.90, .88, .94	.90, .87, .92

* Percentage of busy judge time; average over 1000 6-hour days per judge.

**The first percentage represents utilization of the day-certain calendar mode. The second and third percentages are for the adjusted and unadjusted forms of the continuous calendar mode levels, respectively.
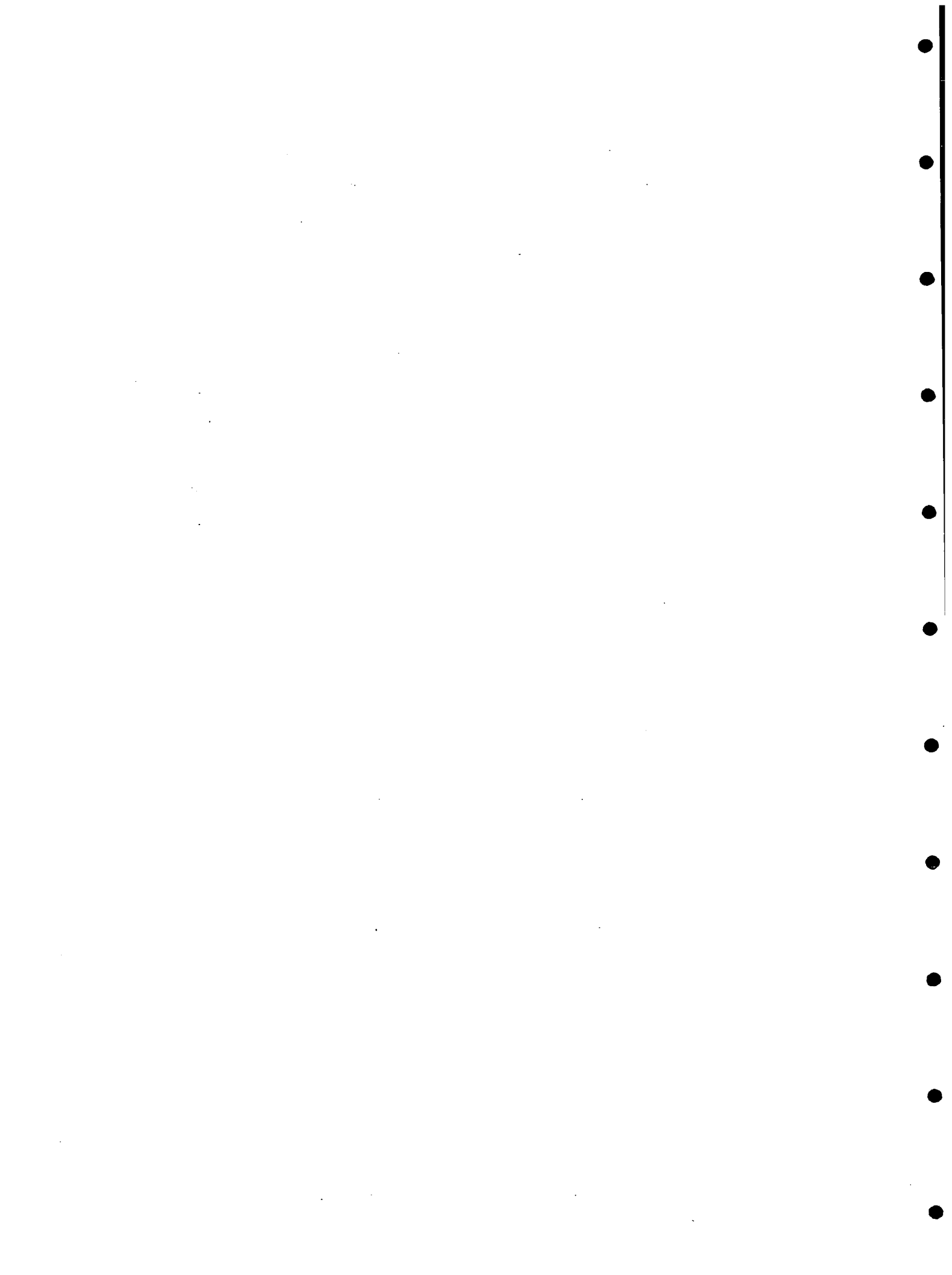
date-certain model does somewhat better when four or more judges are available. It appears that systems with fewer than four judges are more influenced by the advantage of weekly scheduling than by the problem of delay between events. The relative constancy of utilization under the adjusted model bears note. The differences between the unadjusted model and the other two models are not as substantial here as in the three-hour case.

These results suggest that the impact of the lag period is slight for the six-hour duration models relative to that for the three-hour duration models. For example, utilization under the adjusted version is within 6 percentage points of the unadjusted model at all standard deviation levels; recall that it was 10 to 15 percentage points higher in most categories when we assumed a mean of three hours. One explanation is that expected event length and judge workday are identical.

Waiting time

We mention waiting time only for the sake of completeness. The continuous calendar models assume no waiting time on the part of litigants and witnesses. Waiting time for the date-certain models that assume three- or six-hour event durations are presented in Exhibits I-15 and I-16 of Chapter 1.

Completed events

The percentage of events completed for our models are graphically provided by Exhibits II-15 through II-20. These exhibits show the benefit of weekly schedule determination.

COMPARISON OF DAY-CERTAIN AND CONTINUOUS CALENDARS - EXHIBIT II-15
PERCENTAGE OF EVENTS COMPLETED
MEAN EVENT DURATION = 3 HOURS, STANDARD DEVIATION = 3 HOURS

* Day-Certain Calendar Mode
+ Continuous Calendar (Adjusted)
· Continuous Calendar (Unadjusted)

NUMBER OF JUDGES AVAILABLE

II-30
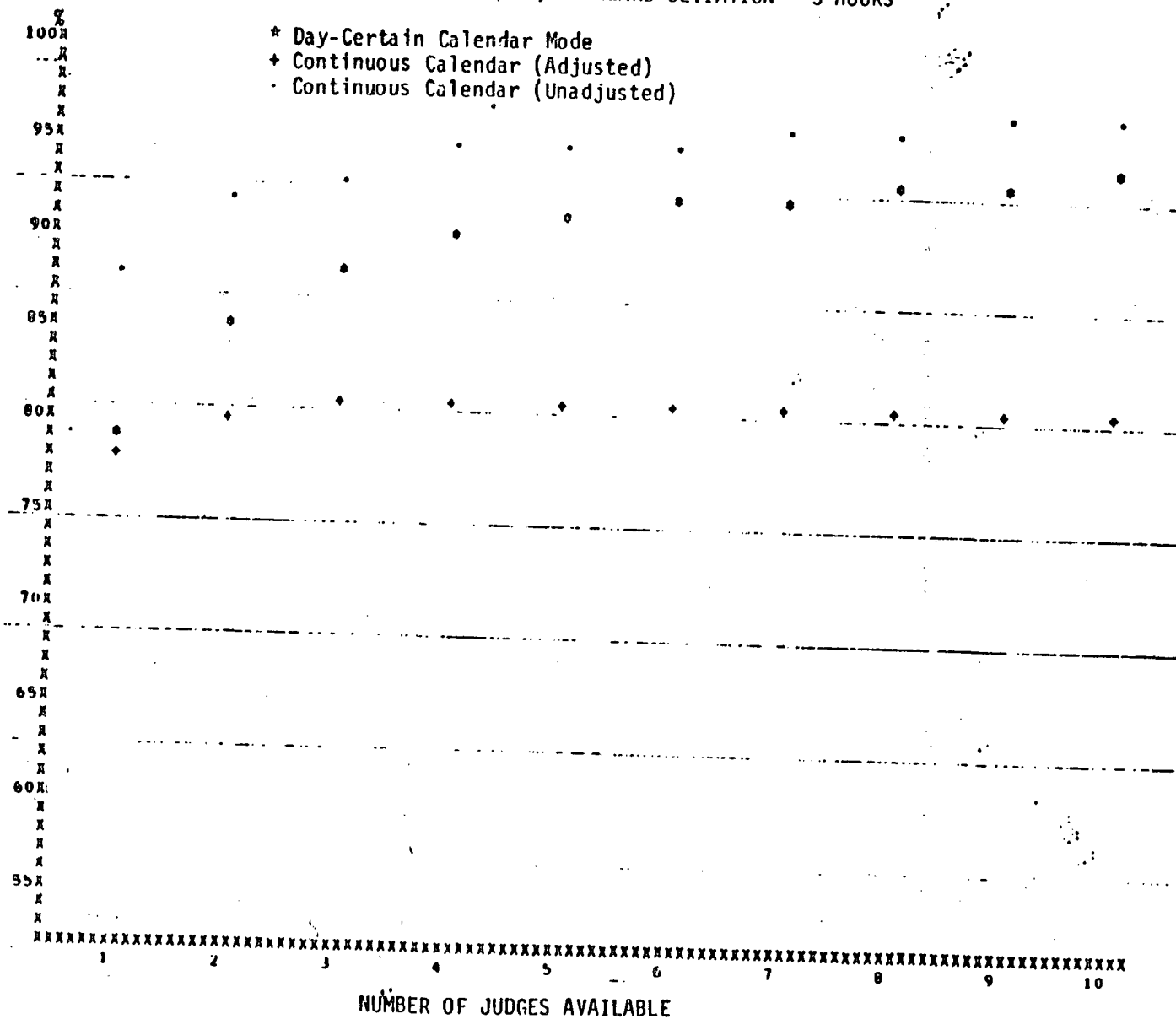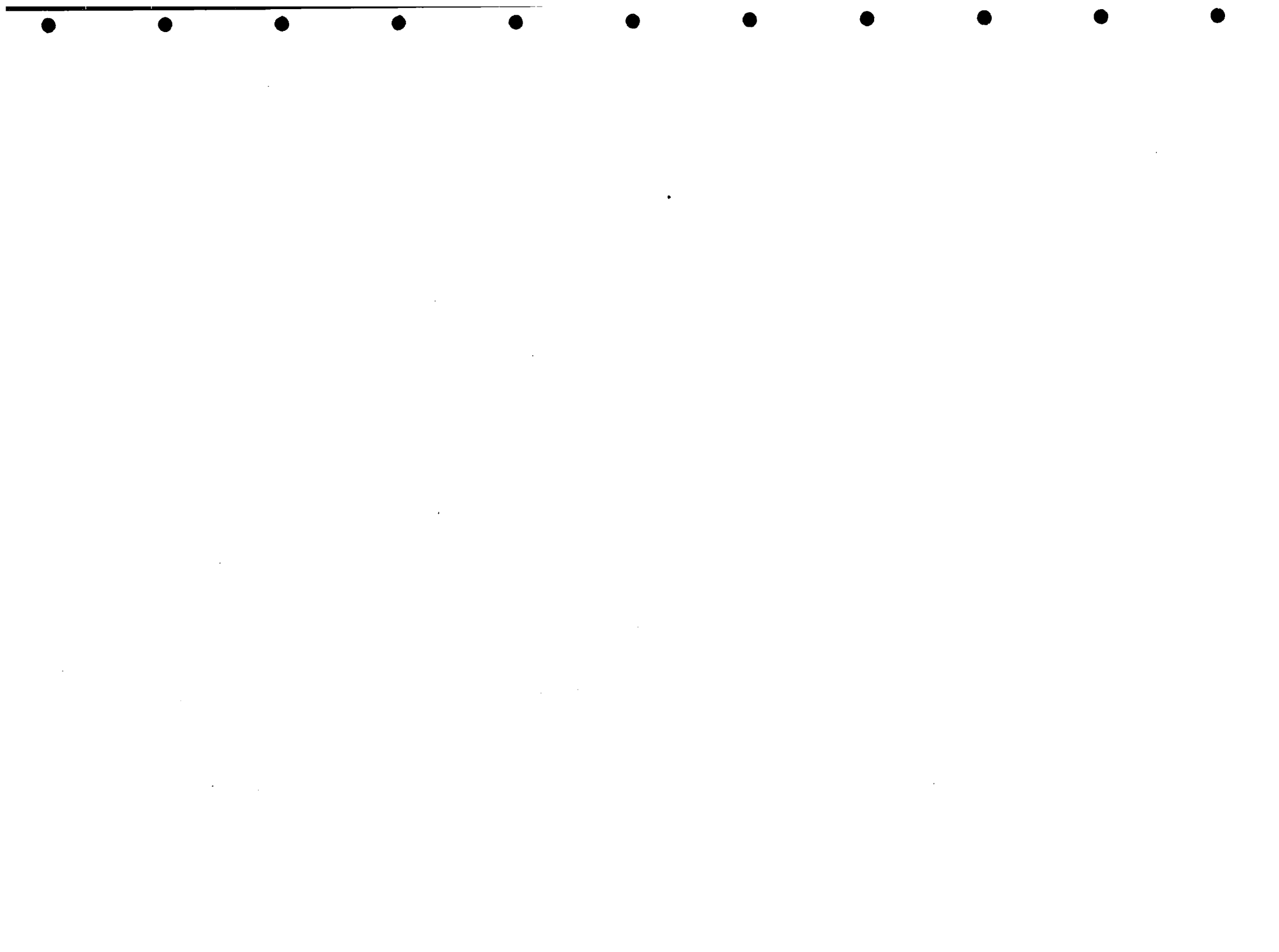
COMPARISON OF DAY-CERTAIN AND CONTINUOUS CALENDARS - EXHIBIT II-16
PERCENTAGE OF EVENTS COMPLETED
MEAN EVENT DURATION = 3 HOURS, STANDARD DEVIATION = 4.5 HOURS

* Day-Certain Calendar Mode
+ Continuous Calendar (Adjusted)
· Continuous Calendar (Unadjusted)

NUMBER OF JUDGES AVAILABLE

II-31
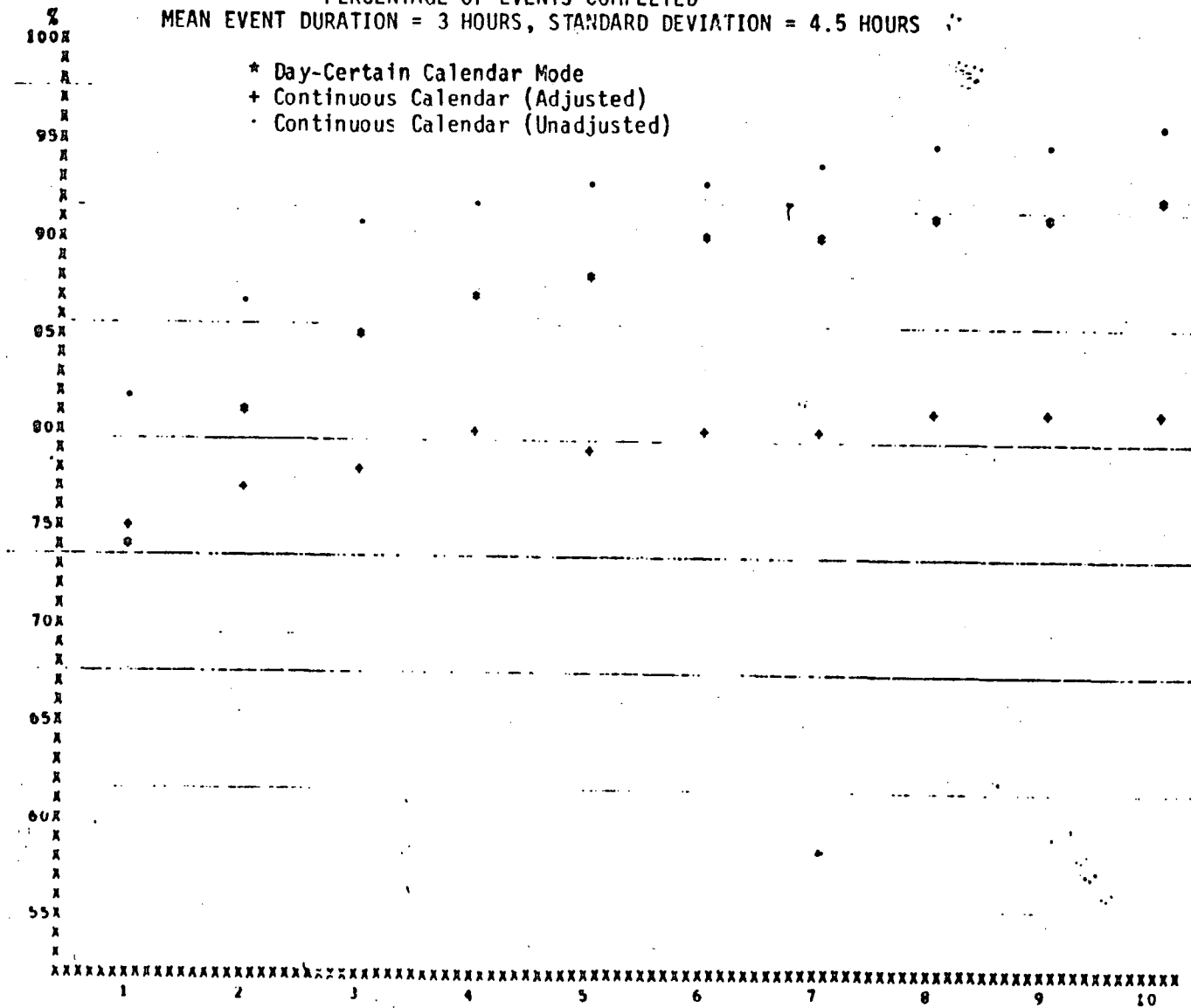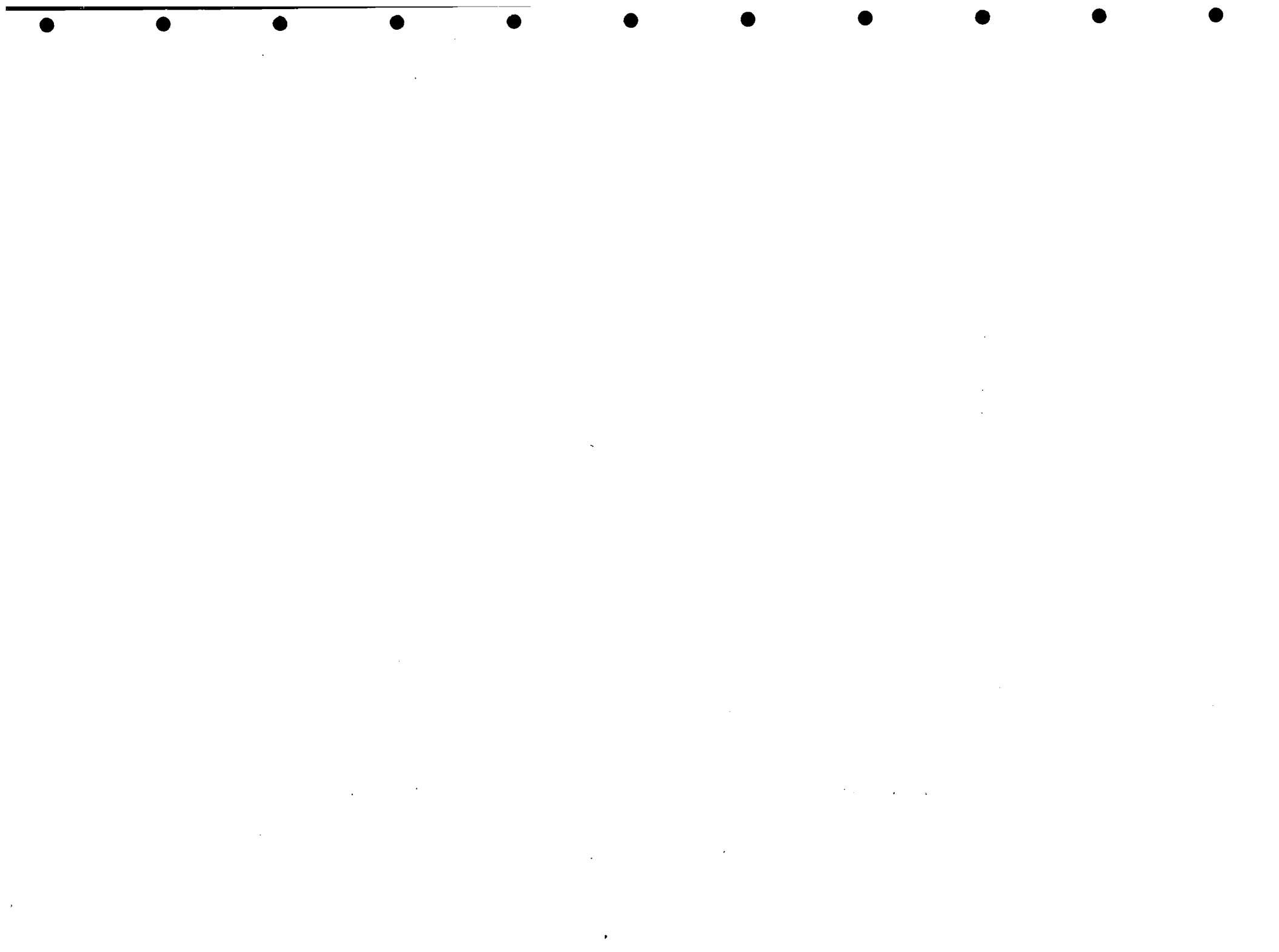
COMPARISON OF DAY-CERTAIN AND CONTINUOUS CALENDARS - EXHIBIT II-17
PERCENTAGE OF EVENTS COMPLETED
MEAN EVENT DURATION = 3 HOURS, STANDARD DEVIATION = 6 HOURS

* Day-Certain Calendar Mode
+ Continuous Calendar (Adjusted)
· Continuous Calendar (Unadjusted)

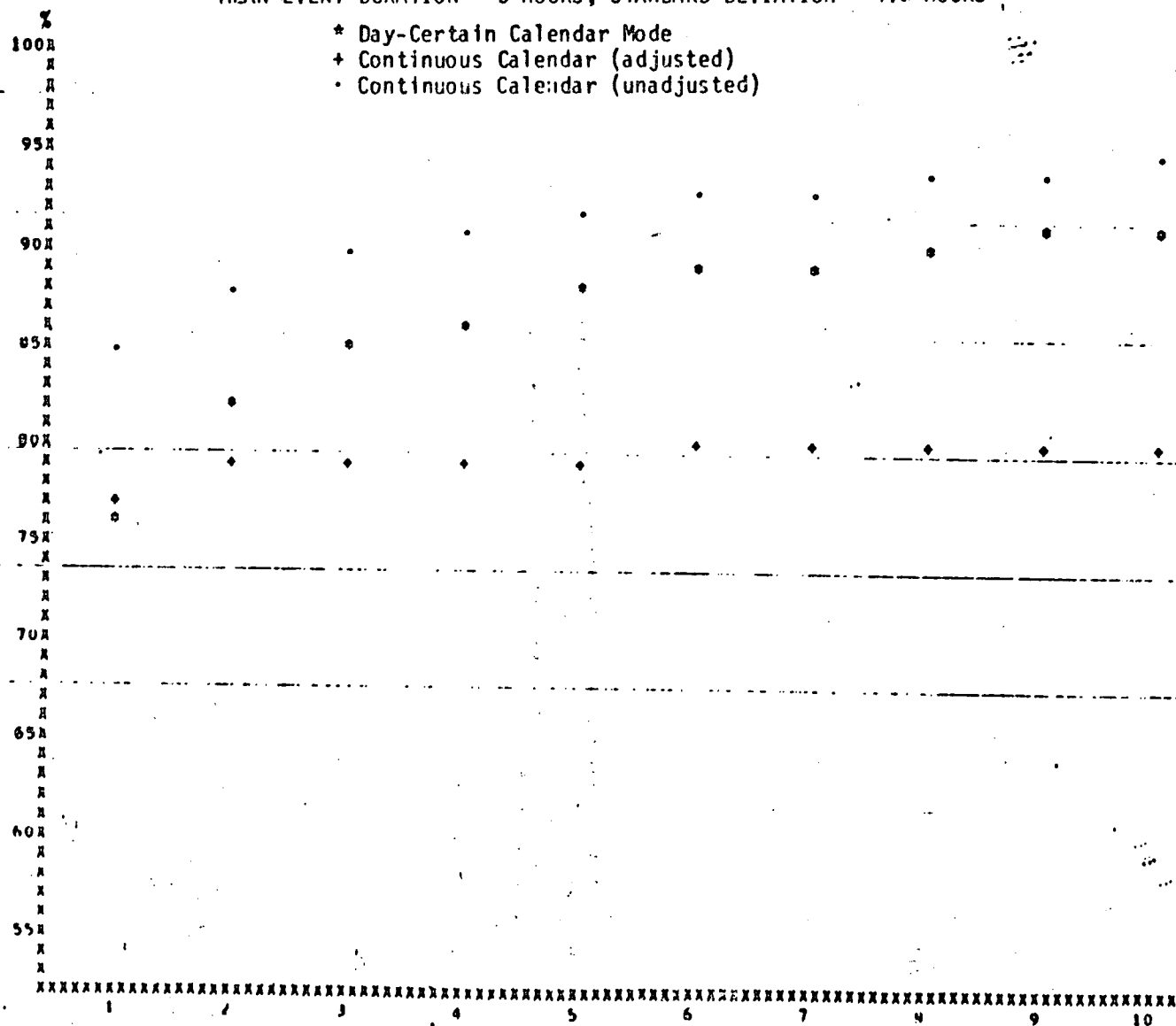NUMBER OF JUDGES AVAILABLE
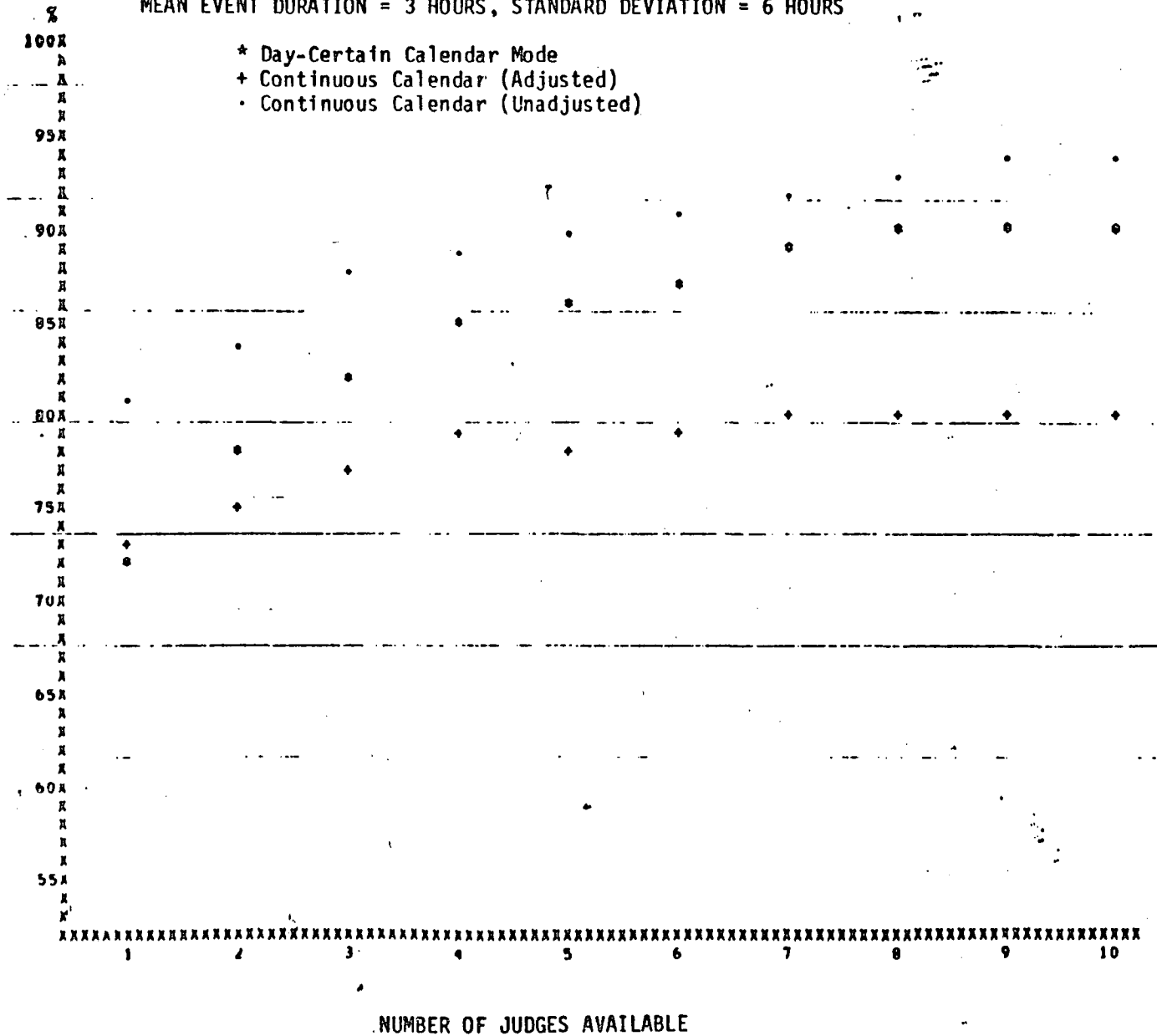
II-32
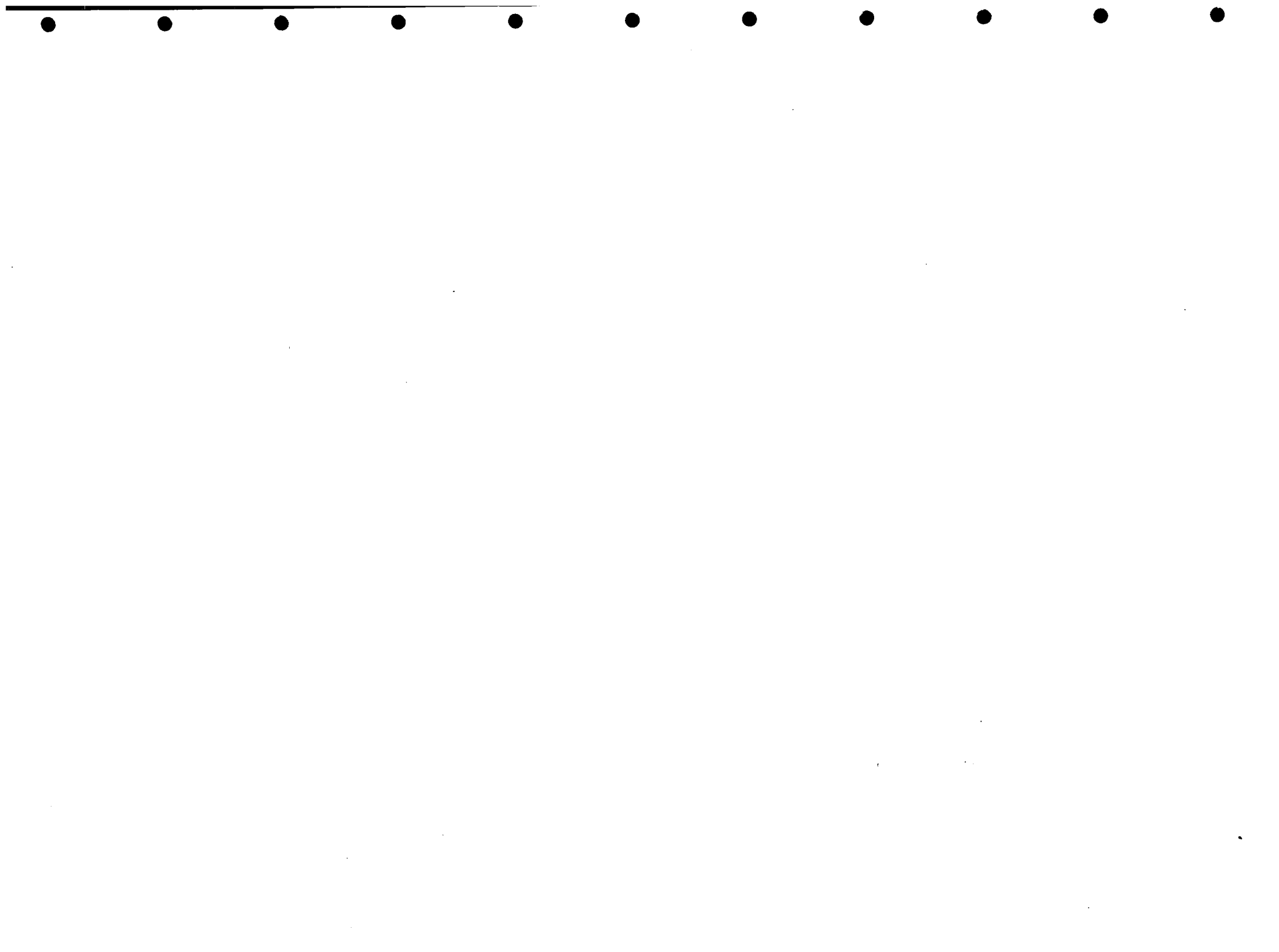
COMPARISON OF DAY-CERTAIN AND CONTINUOUS CALENDARS - EXHIBIT II-18
PERCENTAGE OF EVENTS COMPLETED
MEAN EVENT DURATION = 6 HOURS, STANDARD DEVIATION = 6 HOURS
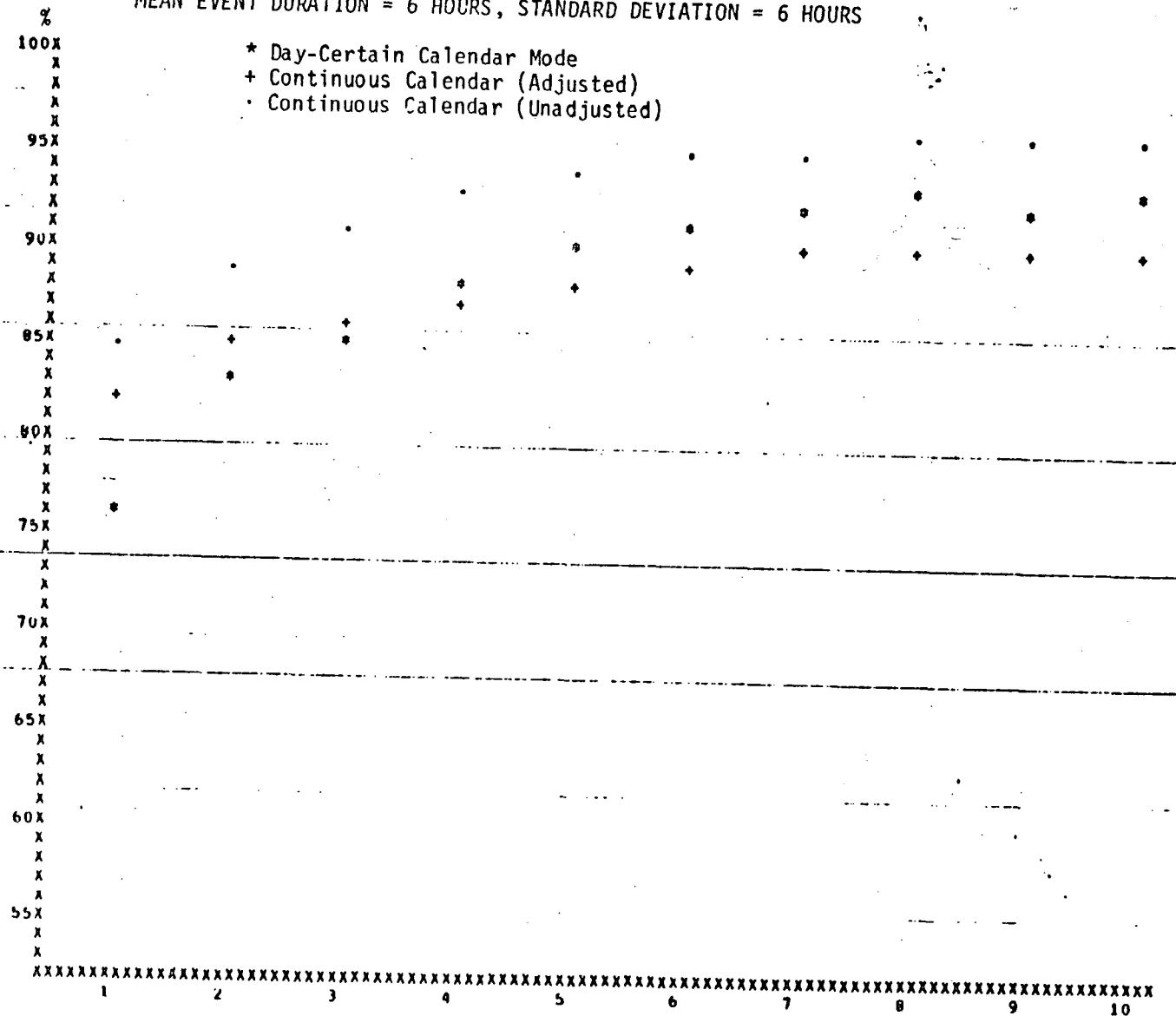
* Day-Certain Calendar Mode
+ Continuous Calendar (Adjusted)
· Continuous Calendar (Unadjusted)

NUMBER OF JUDGES AVAILABLE

II-33
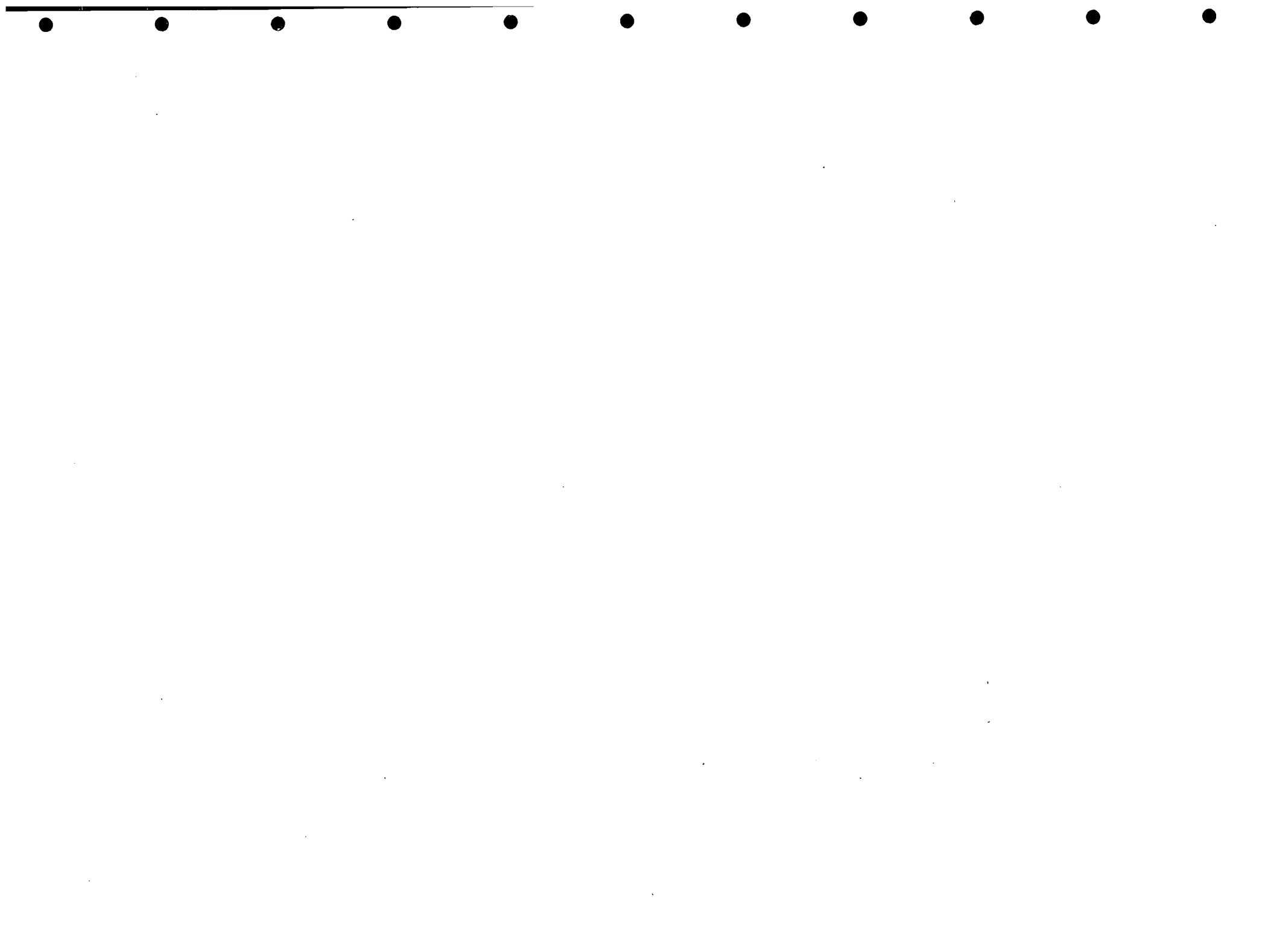
COMPARISON OF DAY-CERTAIN AND CONTINUOUS CALENDARS - EXHIBIT II-19
PERCENTAGE OF EVENTS COMPLETED
MEAN EVENT DURATION = 6 HOURS, STANDARD DEVIATION = 9 HOURS

* Day-Certain Calendar Mode
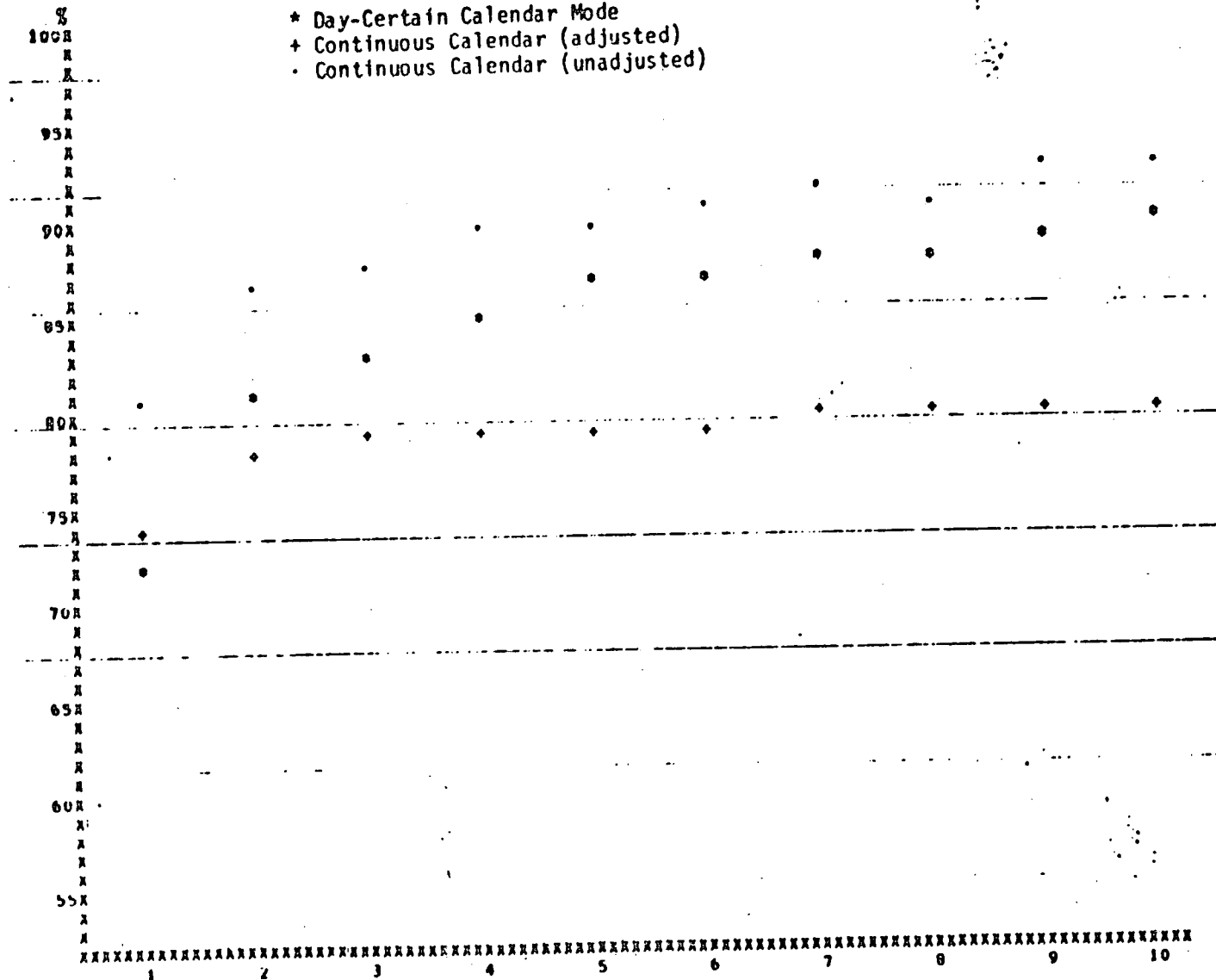+ Continuous Calendar (Adjusted)
· Continuous Calendar (Unadjusted)
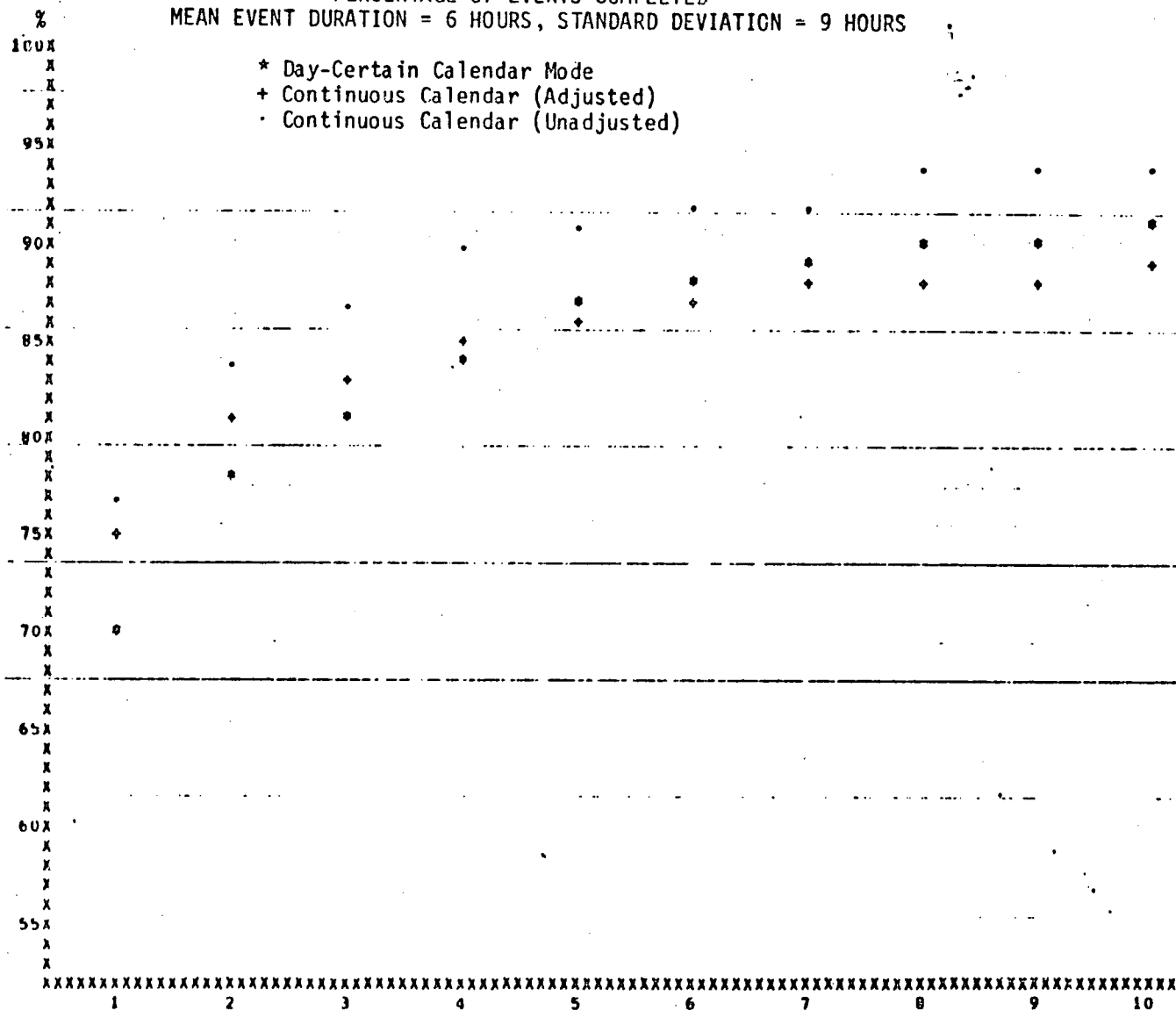
NUMBER OF JUDGES AVAILABLE
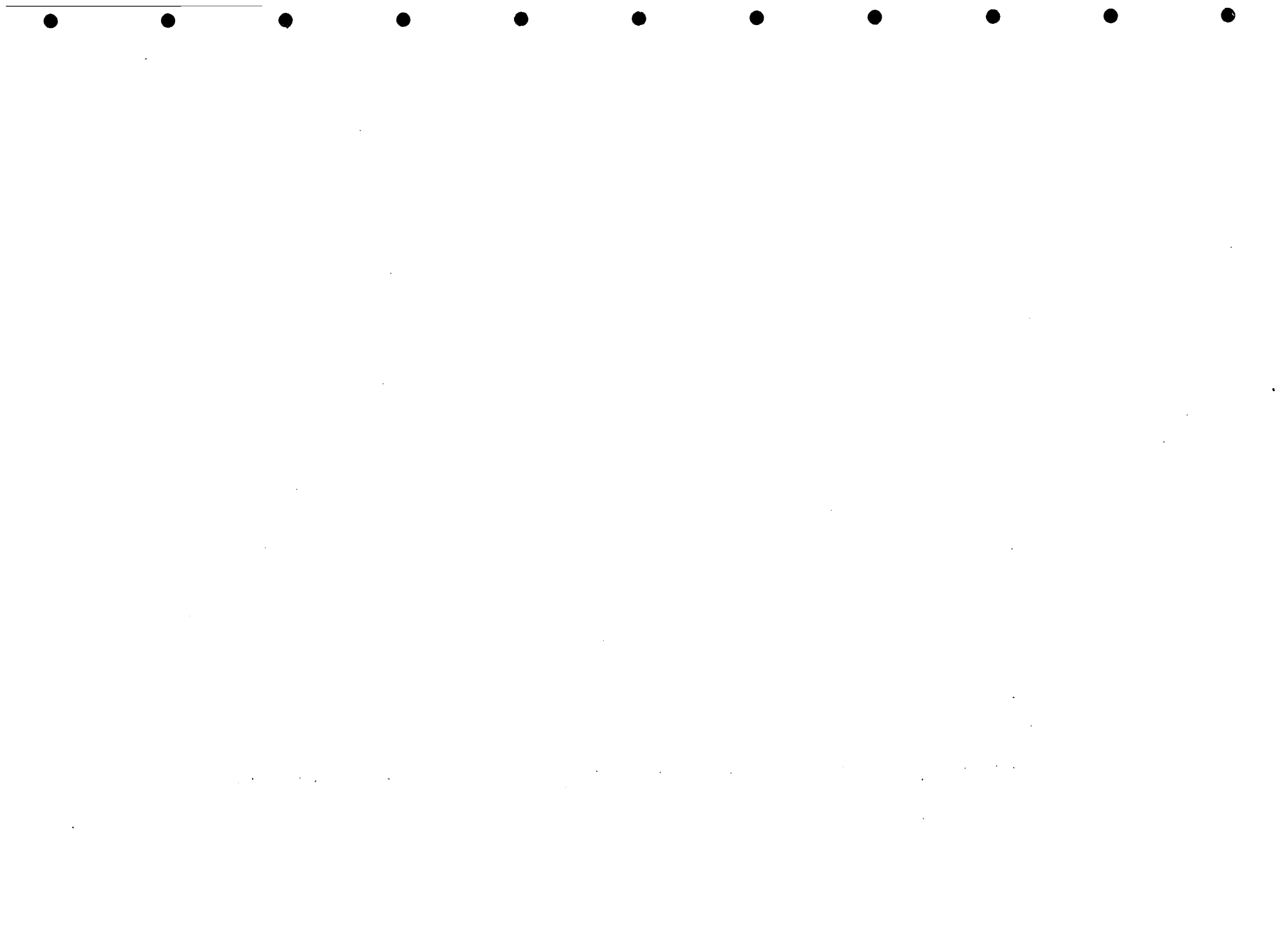
COMPARISON OF DAY-CERTAIN AND CONTINUOUS CALENDARS - EXHIBIT II-20
PERCENTAGE OF EVENTS COMPLETED
MEAN EVENT DURATION = 6 HOURS, STANDARD DEVIATION = 12 HOURS

* Day-Certain Calendar Mode
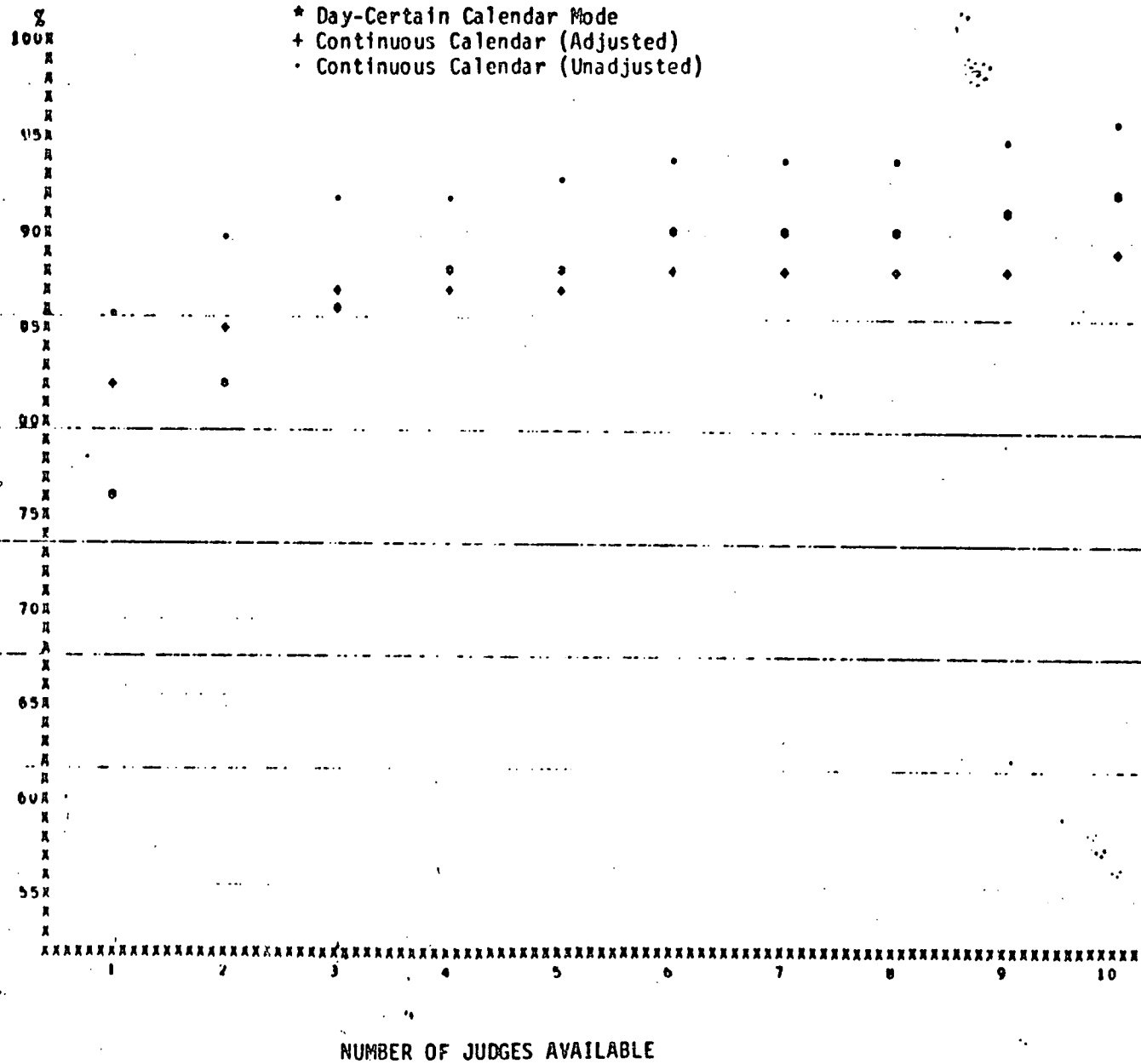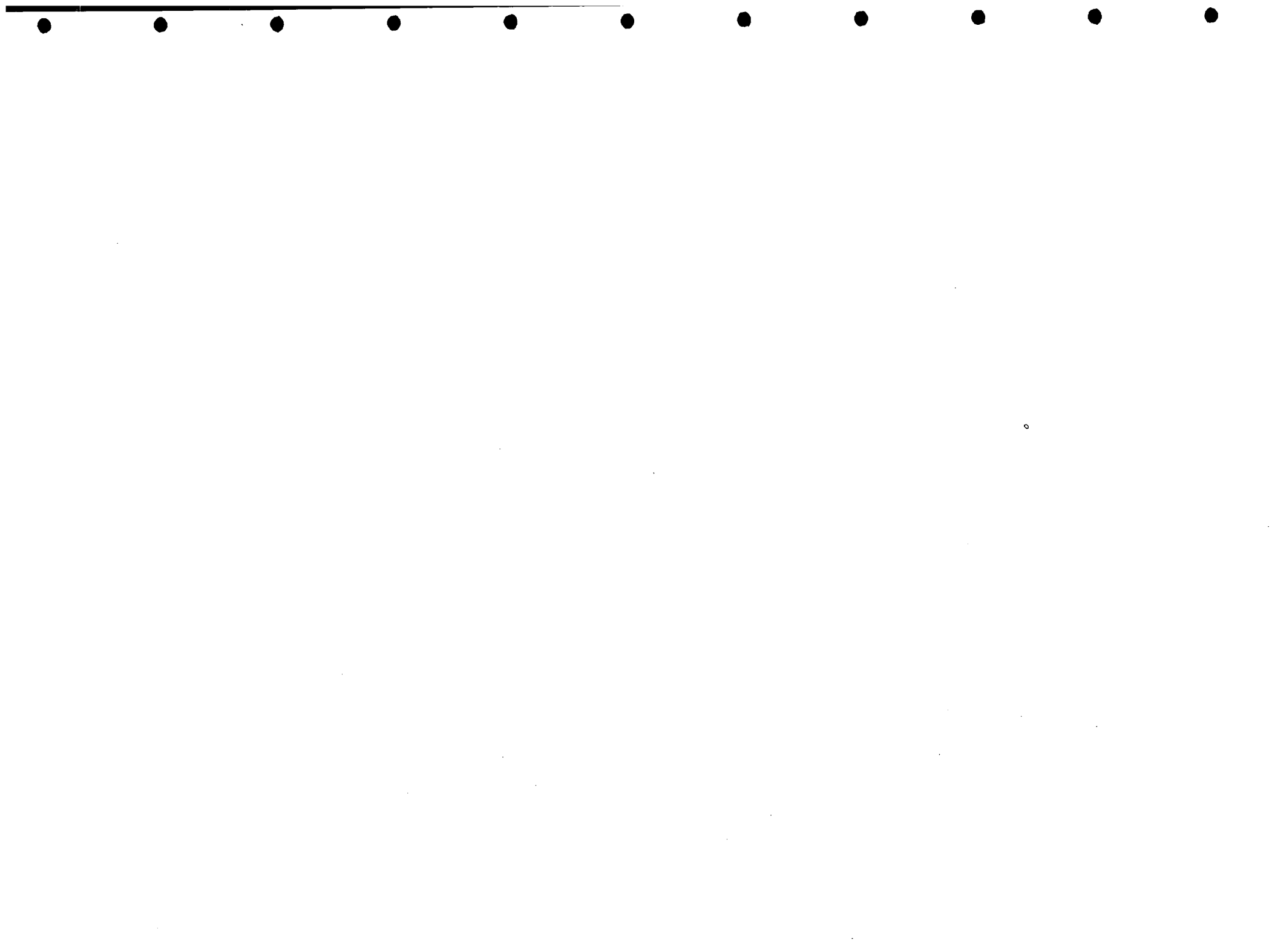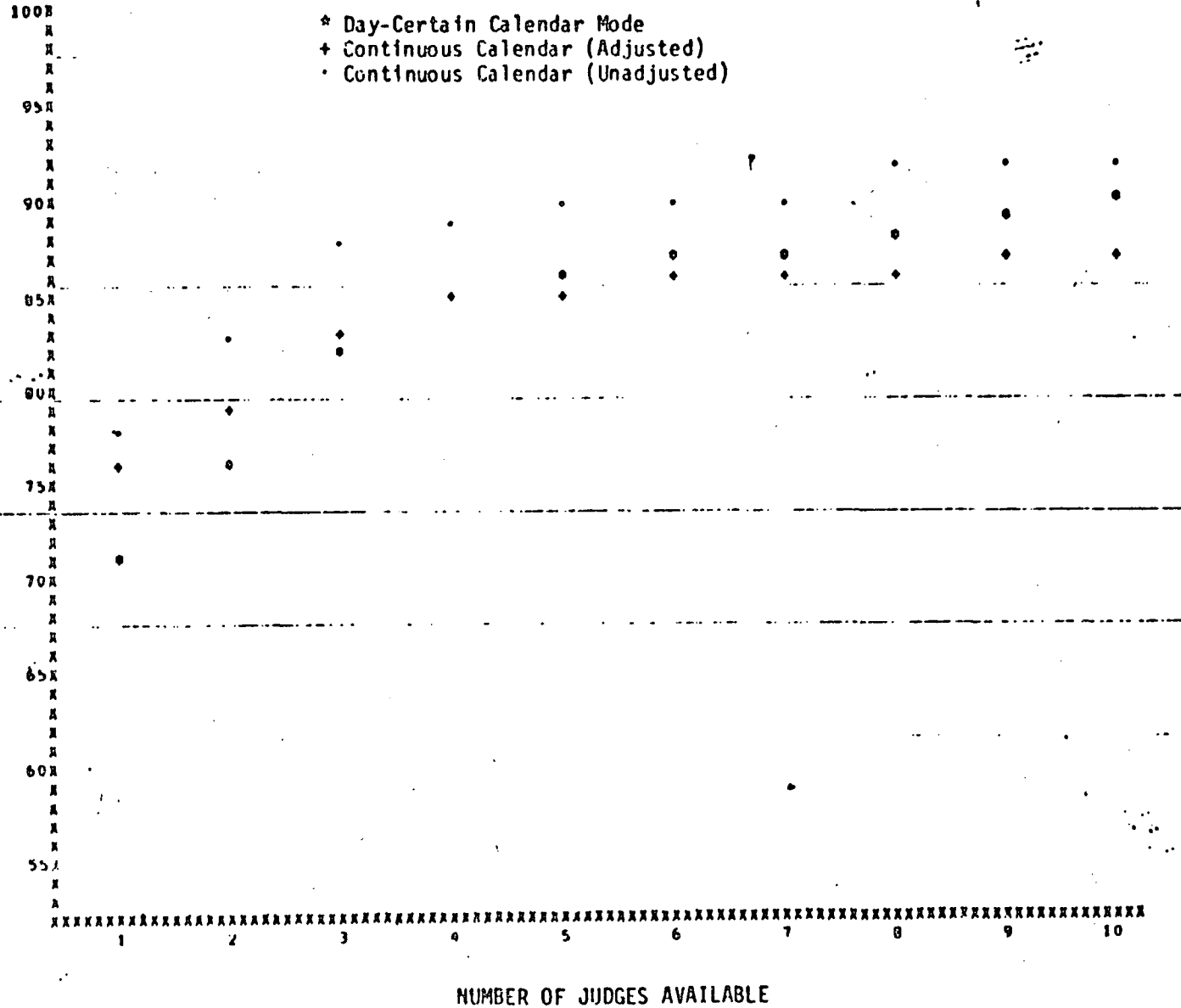+ Continuous Calendar (Adjusted)
· Continuous Calendar (Unadjusted)

NUMBER OF JUDGES AVAILABLE
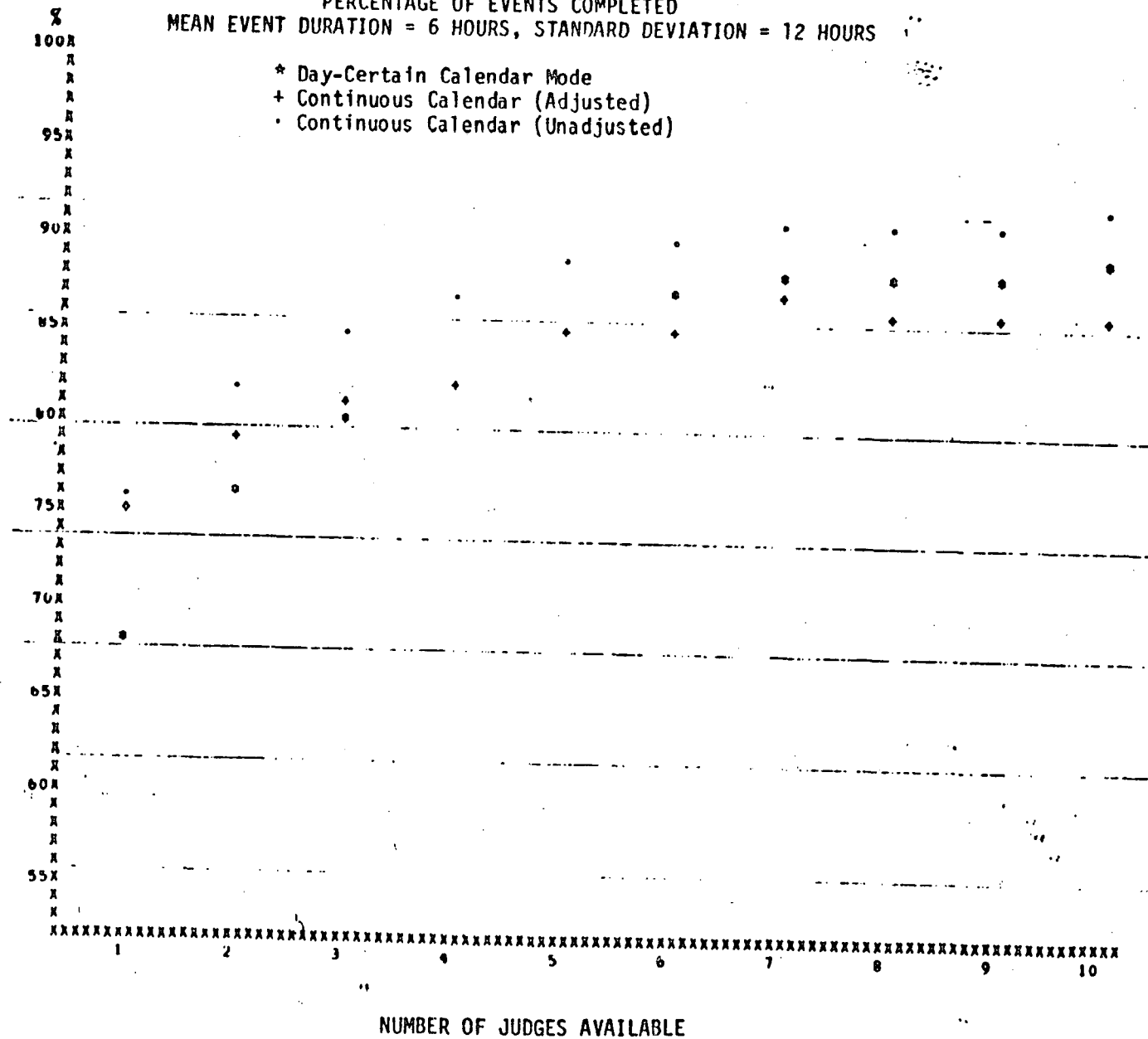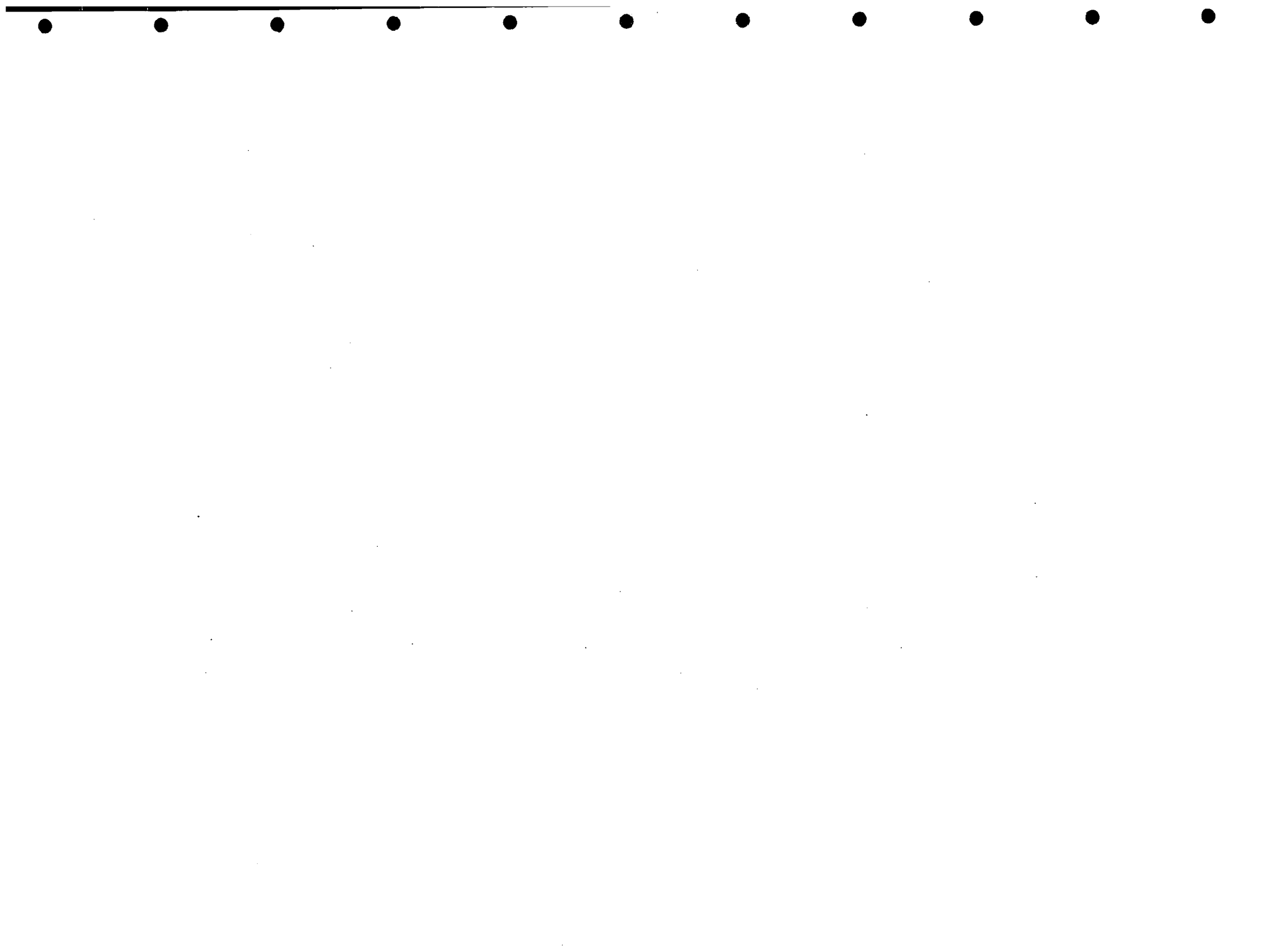
First we discuss those categories where the expected event dura-
tion is three hours (Exhibit II-21). For the adjusted model the
percentage remains a relatively constant 80 percent for all judge
levels. The date-certain calendar consistently outperforms the
adjusted model here. As the availability of judicial resources
increases, the gap between the two models increases. For in-
stance, with a standard deviation level of three hours, the rates
for the date-certain and adjusted models are, respectively, 79
to 78 percent for the individual calendar; 91 to 81 percent for
the five-judge master calendar; and 94 and 81 percent for the
ten-judge master calendar. These findings are typical of all
categories.

In cases where the expected event duration is six hours,
judge availability influences whether the date-certain model or
the adjusted model is better in terms of event completion rates.
Exhibit II-22 presents the results in tabular form. For systems
of three or fewer judges, the adjusted model performs slightly
better than the date-certain; the opposite is true for master
calendar systems with four or more judges. With event length
expectation of six hours, the impact of the hour delay is less
significant than in the three-hour expectation models. The
results found for completion rates closely parallel those of
utilization.

Events overscheduled

Exhibits II-23 and II-24 present event overscheduling rates
for the three models for assumed mean levels of three and six
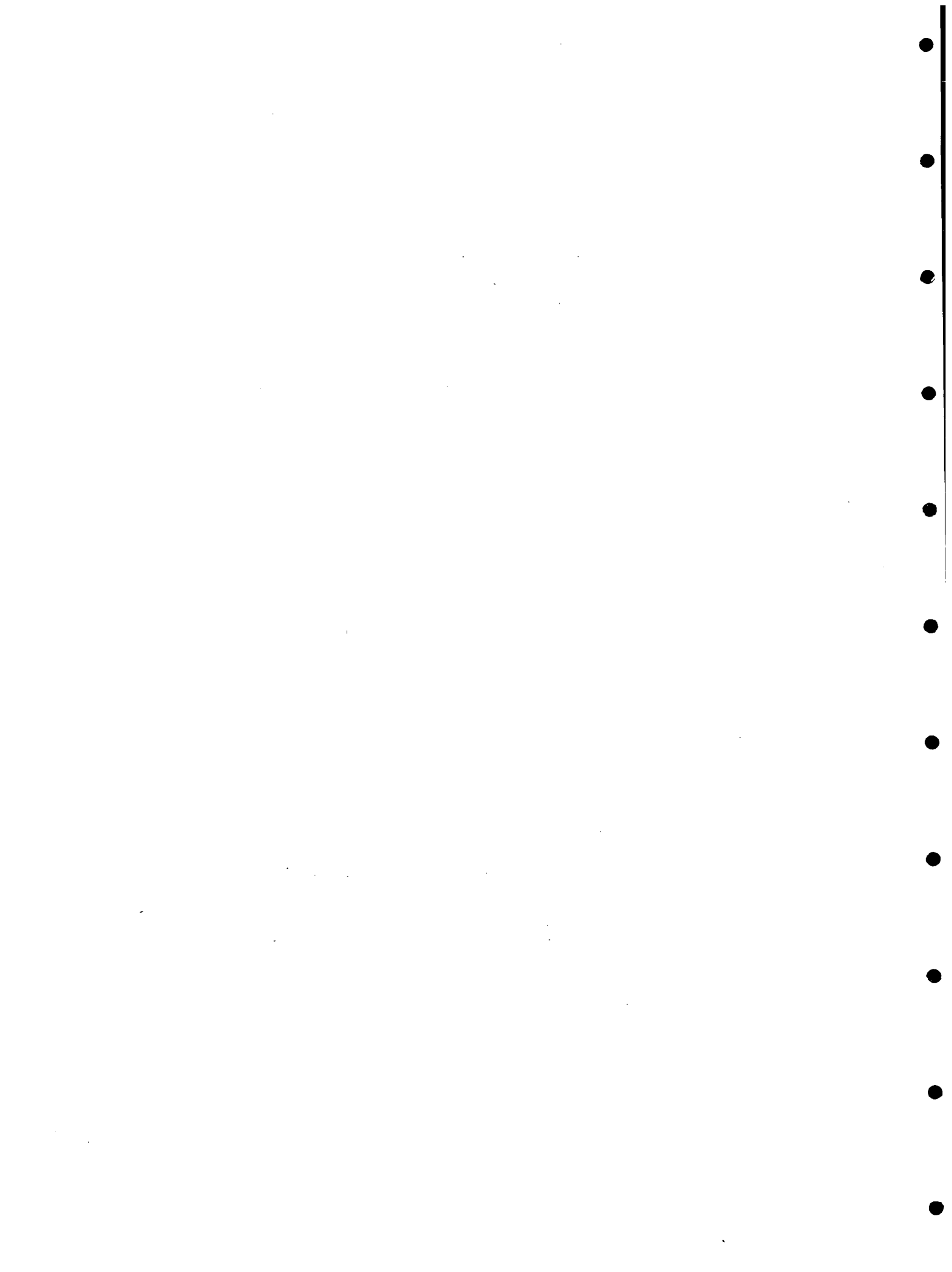
EXHIBIT II-21

ALTERNATIVE CALENDAR MODES
PERCENTAGE OF EVENTS COMPLETED*
MEAN EVENT DURATION OF THREE HOURS

Number of Judges	Standard Deviation=3 Hours	Standard Deviation=4.5 Hours	Standard Deviation=6 Hours
1	.79, .78, .88 **	.74, .75, .82	.72, .73, .81
2	.85, .80, .92	.81, .77, .87	.78, .75, .84
3	.88, .81, .93	.85, .78, .91	.82, .77, .88
4	.90, .81, .95	.87, .80, .92	.85, .79, .89
5	.91, .81, .95	.88, .79, .93	.86, .78, .90
6	.92, .81, .95	.90, .80, .93	.87, .79, .91
7	.92, .81, .96	.90, .80, .94	.89, .80, .92
8	.93, .81, .96	.91, .81, .95	.90, .80, .93
9	.93, .81, .97	.91, .81, .95	.90, .80, .94
10	.94, .81, .97	.92, .81, .96	.90, .80, .94

* Ratio represents number of events completed during 1000 day period over number scheduled during that period.

**The first percentage represents utilization for the day-certain calendar mode. The second and third are for the adjusted and unadjusted forms of the continuous calendar mode levels, respectively.
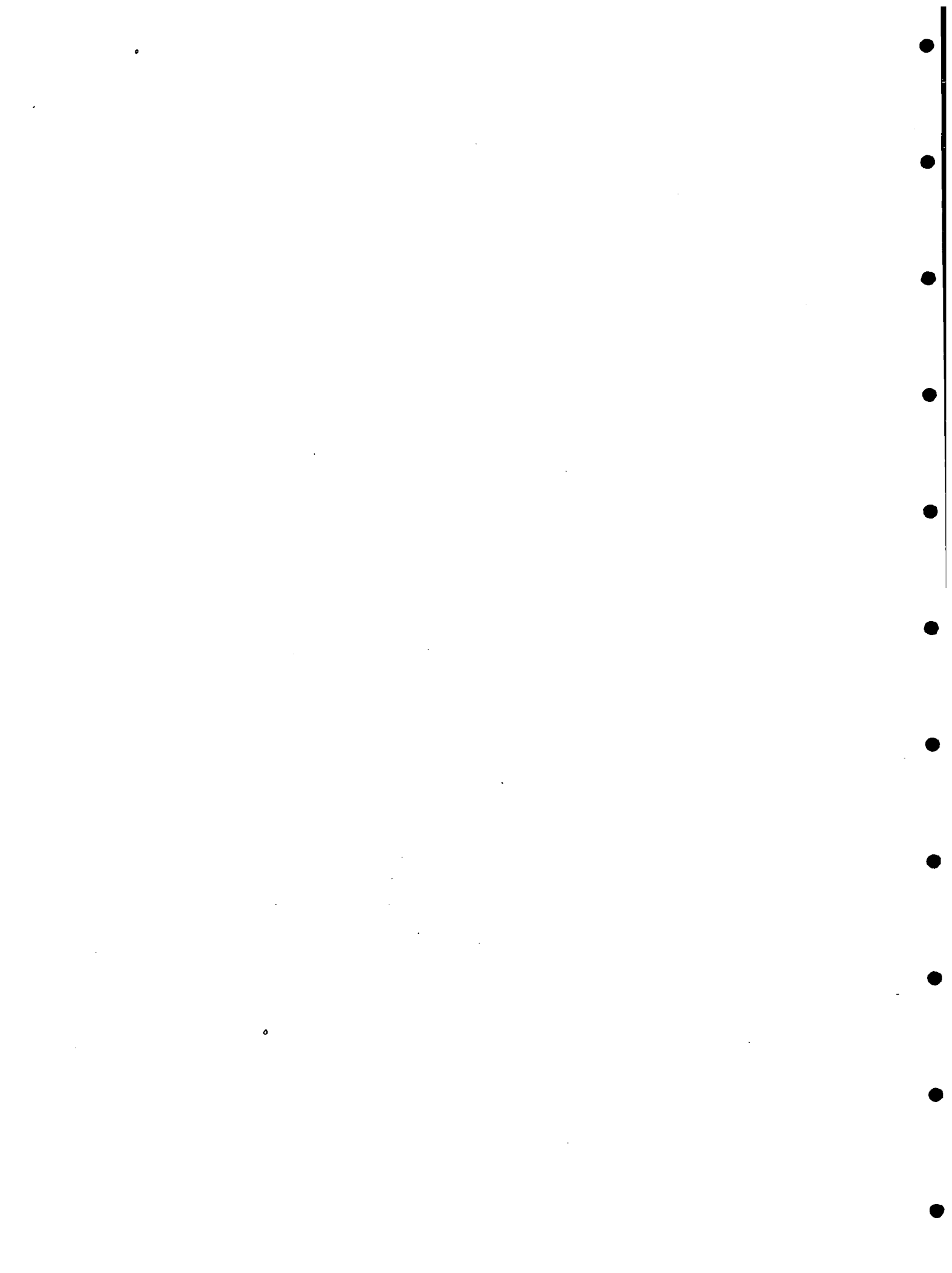
EXHIBIT II-22

ALTERNATIVE CALENDAR MODES
PERCENTAGE OF EVENTS COMPLETED*
MEAN DURATION OF SIX HOURS

Number of Judges	Standard Deviation=6 Hours	Standard Deviation=9 Hours	Standard Deviation=12 Hours
1	.76, .82, .85 **	.70, .75, .77	.68, .75, .76
2	.83, .85, .89	.78, .81, .84	.76, .79, .82
3	.85, .86, .91	.81, .83, .87	.80, .81, .85
4	.88, .87, .93	.84, .85, .90	.82, .82, .87
5	.90, .88, .94	.87, .86, .91	.85, .85, .89
6	.91, .89, .95	.88, .87, .92	.87, .85, .90
7	.92, .90, .95	.89, .88, .92	.88, .87, .91
8	.93 .90, .96	.90, .88, .94	.88, .86, .91
9	.92, .90, .96	.90, .88, .94	.88, .86, .91
10	.93, .90, .96	.91, .89, .94	.89, .86, .92

* Ratio represents number of events completed during 1000 day period over number scheduling during that period.

**The first percentage represents utilization for the day-certain calendar mode. The second and third are for the adjusted and unadjusted forms of the continuous calendar mode models, respectively.
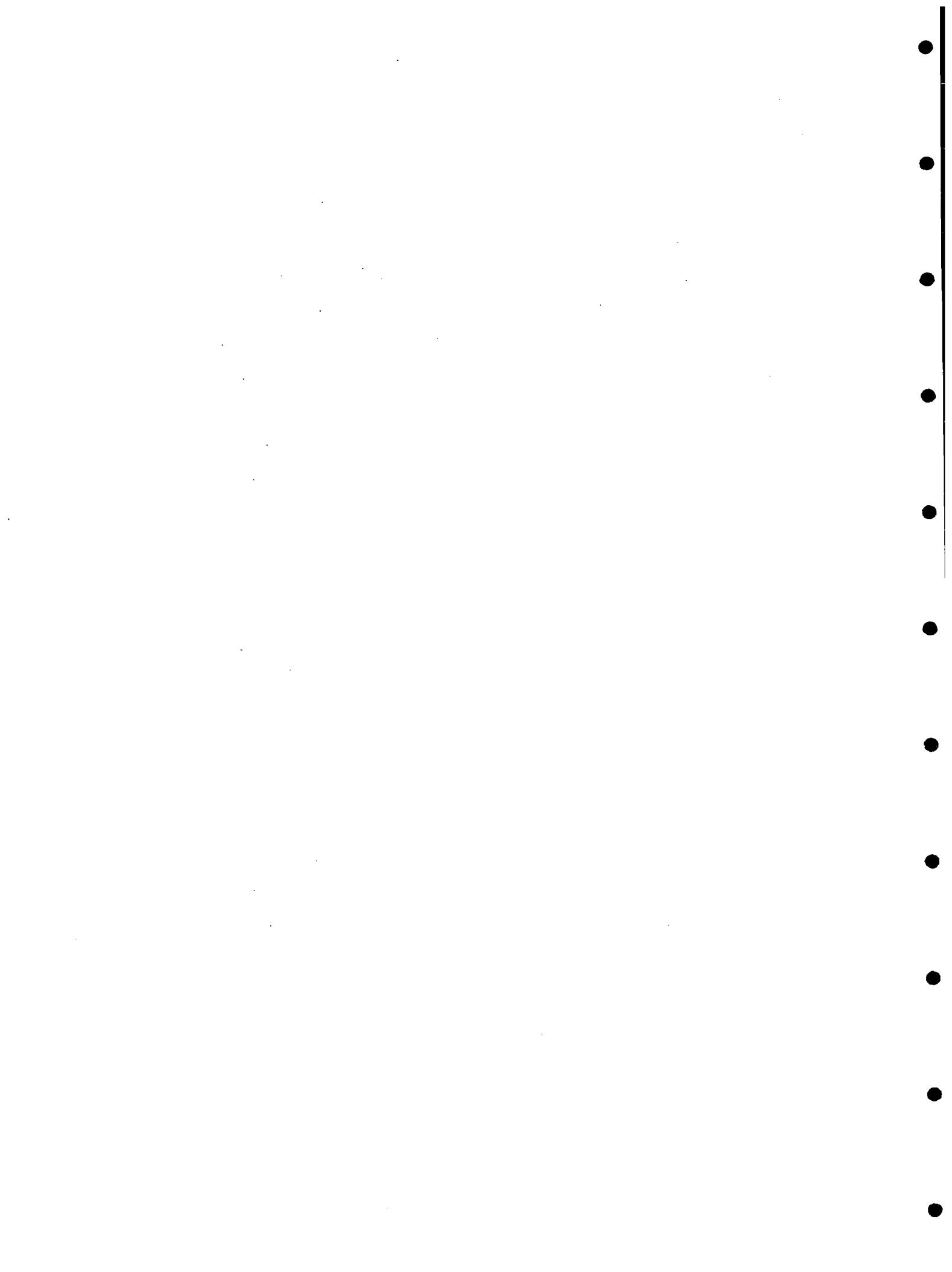
hours, respectively. Earlier, we noted the inverse relationship between the event completion rate and the overscheduling rate. Consequently, it is not surprising that the conclusions about the models based on overscheduling are identical to those drawn in the discussion on completion rates. Consider the category where both the mean event duration and the variability measure are three hours (Exhibit II-23). The unadjusted model provides a lower bound on the rate of overscheduling. For the individual judge, the rate is 13 percent. For the five- and ten-judge master calendars, the respective rates are 5 and 3 percent. In the adjusted model, rates for these judge-availability levels are 23, 19, and 19 percent. For the date-certain model, the rates are 22, 9, and 6 percent, respectively. Here again, we see the relatively constant performance of the adjusted model for various levels of judicial availability, and the higher level of performance by the date-certain calendar mode.

In Exhibit II-24, note the category where the mean and standard deviation are each six hours. The unadjusted model provides the lower bounds for the overscheduling rate. For the three calendar setups we are viewing, the overscheduling rates are 16, 6, and 4 percent. The respective rates for the date-certain model are 24, 10, and 7 percent; for the adjusted model, 19, 12, and 10 percent.

The effect of judge availability on system performance in the six-hour model is again discernible.
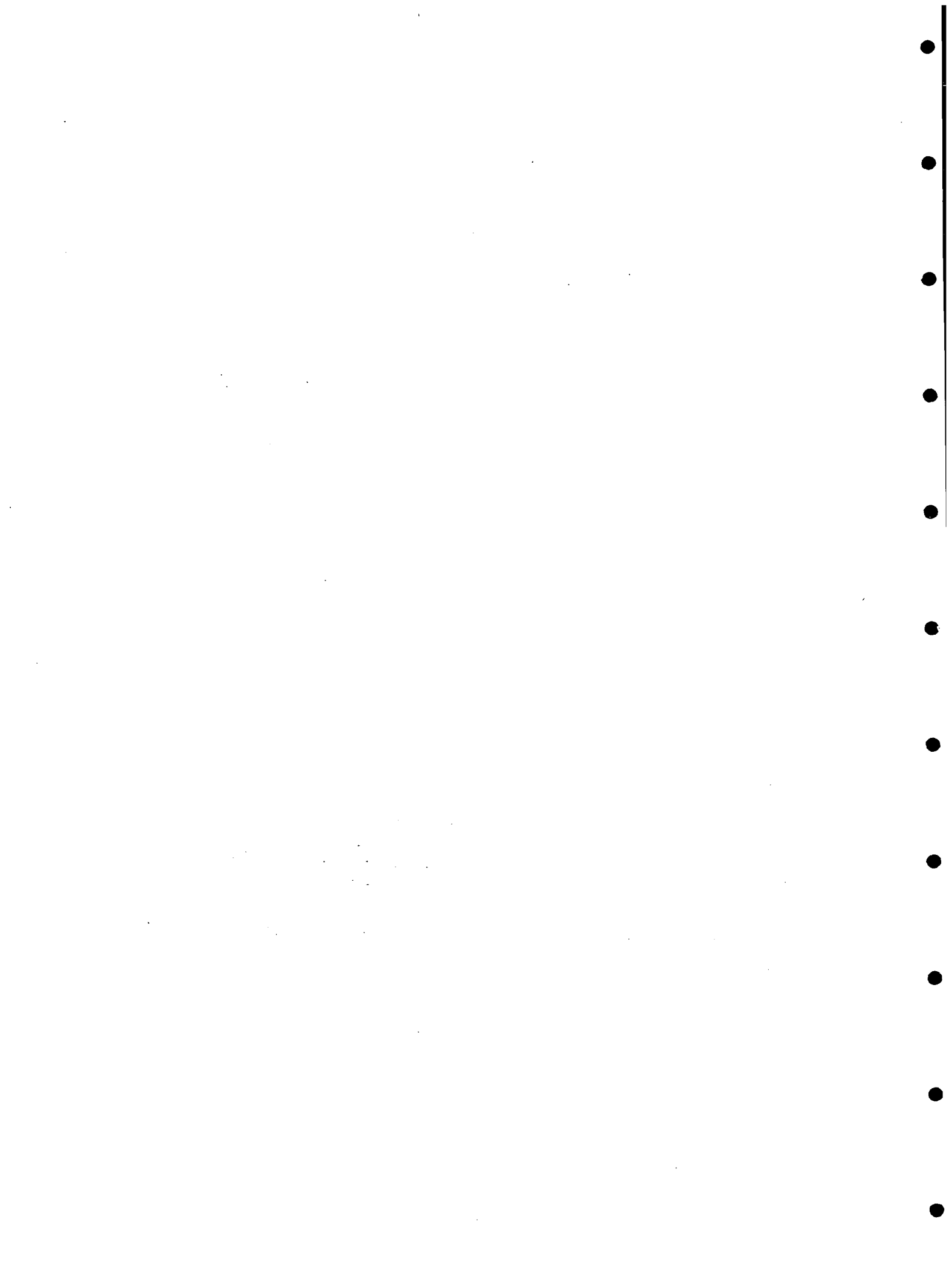
EXHIBIT II-23

ALTERNATIVE CALENDAR MODES
PERCENTAGE OF EVENTS OVERSCHEDULED*
MEAN EVENT DURATION OF THREE HOURS

Number of Judges	Standard Deviation=3 Hours	Deviation=4.5 Hours	Deviation=6 Hours
1	.22, .23, .13 **	.27, .26, .18	.29, .28, .20
2	.15, .21, .08	.20, .23, .13	.23, .26, .17
3	.12, .20, .07	.15, .22, .09	.18, .24, .13
4	.10, .19, .05	.13, .20, .08	.15, .22, .11
5	.09, .19, .05	.12, .21, .07	.14, .22, .10
6	.08, .19, .05	.11, .20, .07	.13, .22, .09
7	.08, .19, .04	.10, .20, .05	.11, .21, .08
8	.07, .19, .04	.09, .20, .05	.11, .20, .07
9	.07, .19, .03	.08, .20, .05	.10, .21, .07
10	.06, .19, .03	.08, .20, .05	.10, .20, .06

* Percentage represents number of events not heard during 1000 day period of number scheduled during that period. Note that in date-certain mode events are "overscheduled" on daily basis; in continuous mode, on weekly basis.

**The first percentage represents utilization for the day-certain calendar mode. The second and third are for the adjusted and unadjusted forms of the continous calendar mode models, respectively.
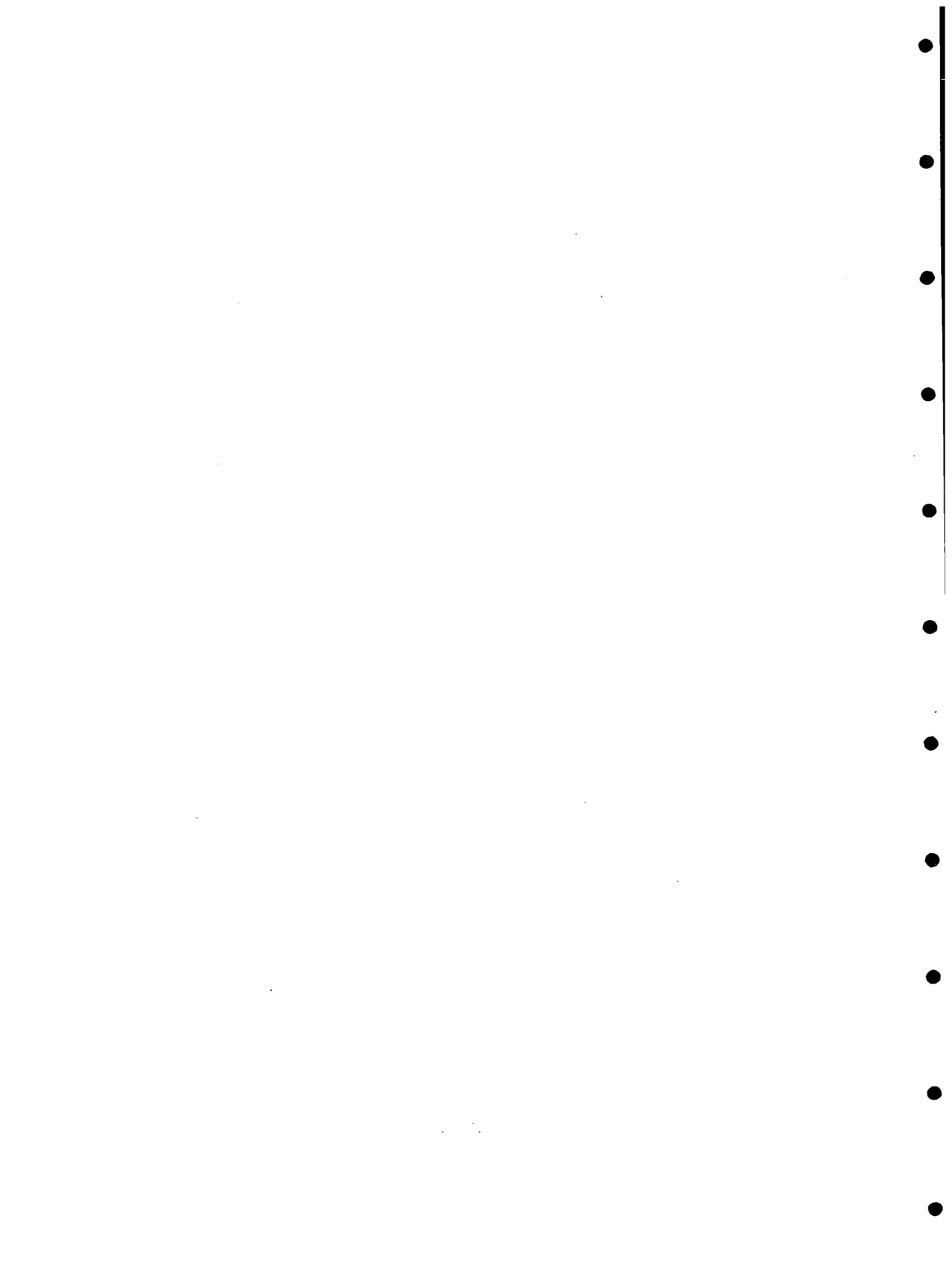
EXHIBIT II-24

ALTERNATIVE CALENDAR MODES
PERCENTAGE OF EVENTS OVERSCHEDULED*
MEAN EVENT DURATION OF SIX HOURS

Number of Judges	Standard Deviation=6 Hours	Standard Deviation=9 Hours	Standard Deviation=12 Hours
1	.24, .19, .16 **	.30, .26, .24	.32, .26, .26
2	.18, .16, .11	.22, .20, .17	.24, .22, .19
3	.15, .15, .09	.19, .18, .14	.20, .20, .15
4	.13, .13, .07	.16, .16, .10	.18, .18, .13
5	.10, .12, .06	.13, .14, .09	.15, .15, .11
6	.09, .12, .05	.12, .13, .08	.14, .15, .10
7	.08, .11, .05	.11, .12, .07	.12, .14, .09
8	.08, .10, .05	.10, .12, .07	.13, .15, .09
9	.08, .10, .04	.10, .12, .06	.11, .14, .09
10	.07, .10, .04	.09, .12, .06	.11, .14, .08

* Percentage represents number of events not heard during 1000 day period over number scheduling during that period. Note that in date-certain mode events are "overscheduled" on daily basis; in continous mode, on weekly basis.

**The first percentage represents utilization for the day-certain calendar mode. The second and third are for the adjusted and unadjusted forms of the continuous calendar mode models, respectively.

Carry-overs

Exhibits II-25 and II-26 present the number of events carried over from one day to the next for the three models. In all instances, more cases are carried over under both continuous calendar mode models, which schedule on a weekly basis. Also, the adjusted model has more carry-overs than the unadjusted version. In Chapter I, we noted that by pooling judicial resources, events which would have been overscheduled under the individual calendar were started (but not completed) under the master calendar. Similarly, under the pooled weekly scheduling arrangement of the continuous calendar, additional cases are started but not completed during the day. The hour between events leads to the greater likelihood that an event will be carried over, given that it is started, particularly as the overtime rule (see Chapter I) is applied.

Summary

First, we compared the individual and master calendar assignment systems, presenting arguments and counterarguments for each. On the basis of simulation results, we concluded the six-judge master calendar was far superior to the individual calendar in terms of increased judge utilization, increased event completion rates, and decreased overscheduling rates. The ten-hour master calendar offered only marginal improvement over the six-judge arrangement. The slight impact of additional judges in a master calendar system after the fifth or sixth judge was seen. Potential hybrid systems were offered.

EXHIBIT II-25

ALTERNATIVE CALENDAR MODES
NUMBER OF EVENTS CARRIED OVER*
MEAN DURATION OF THREE HOURS

Number of Judges	Standard Deviation=3 Hours	Standard Deviation=4.5 Hours	Standard Deviation=6 Hours
1	.33, .54, .43 **	.36, .54, .49	.35, .50, .47
2	.70, 1.09, .91	.79, 1.07, .96	.82, 1.11, 1.02
3	1.07, 1.57, 1.39	1.22, 1.67, 1.47	1.27, 1.69, 1.55
4	1.46, 2.11, 1.86	1.55, 2.20, 1.97	1.76, 2.20, 2.09
5	1.95, 2.68, 2.29	2.14, 2.81, 2.32	2.31, 2.79, 2.70
6	2.30, 3.17, 2.84	2.62, 3.34, 3.09	2.76, 3.38, 3.20
7	3.76, 3.66, 3.32	3.01, 3.80, 3.61	3.20, 3.91, 3.67
8	3.22, 4.19, 3.79	3.50, 4.35, 4.10	3.71, 4.42, 4.26
9	3.67, 4.80, 4.28	4.03, 4.93, 4.67	4.21, 5.05, 4.80
10	4.05, 5.39, 4.71	4.48, 5.48, 5.21	4.76, 5.60, 5.42

* Ratio represents number of events carried over from one day to next during 1000 day period over number scheduled for that period.

**The first percentage represents utilization for the day-certain calendar mode. The second and third are for the adjusted and unadjusted forms of the continous calendar mode models, respectively.

II-43
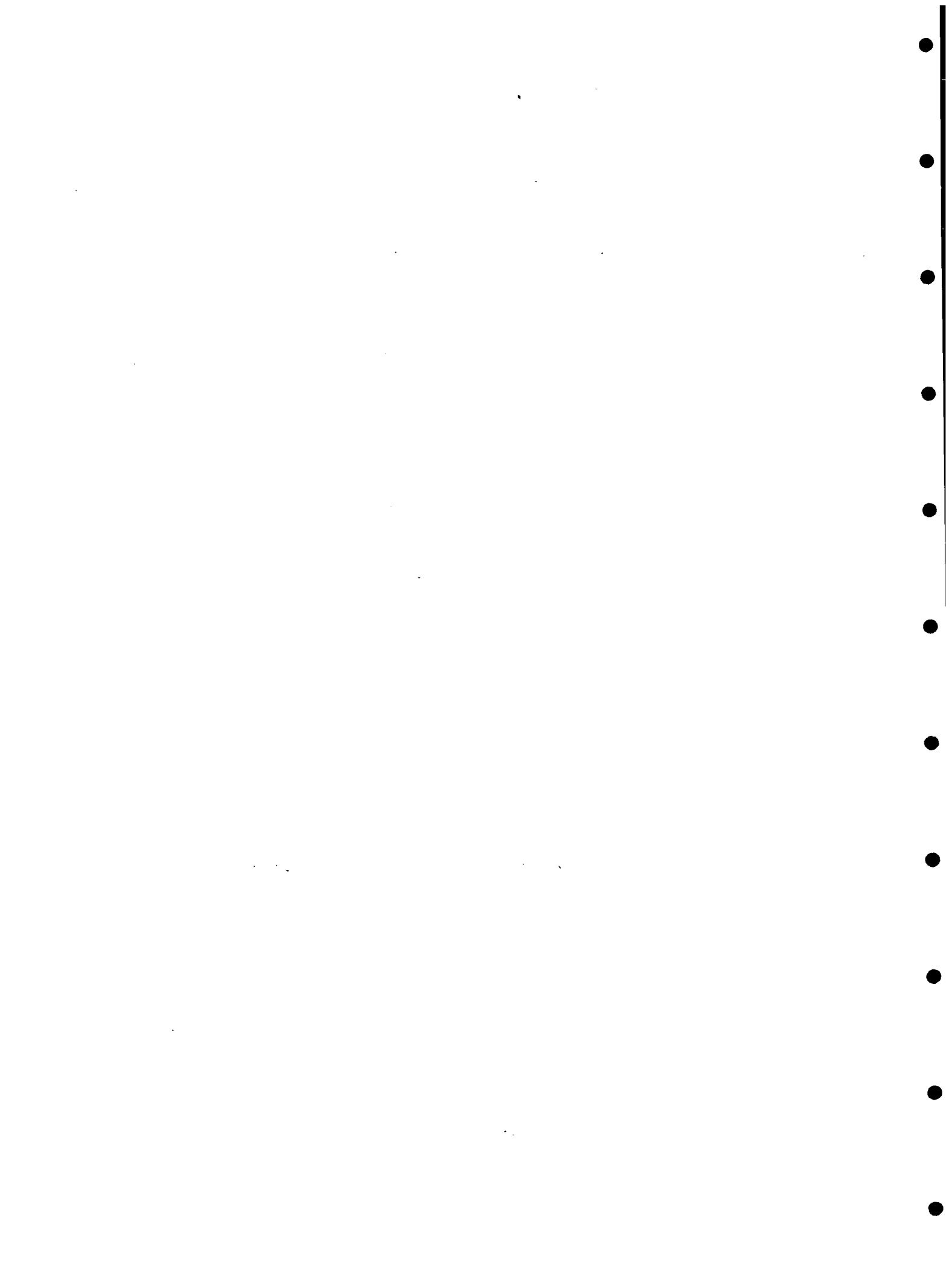
EXHIBIT II-26

ALTERNATIVE CALENDAR MODES
NUMBER OF EVENTS CARRIED OVER
MEAN DURATION OF SIX HOURS

Number of Judges	Standard Deviation=6 Hours	Standard Deviation=9 Hours	Standard Deviation=12 Hours
1	.46, .63 .60 **_	.46, .65, .60	.43, .62, .56
2	1.00, 1.33, 1.26	1.04, 1.33, 1.25	.99, 1.27, 1.22
3	1.57, 2.08, 1.94	1.62, 2.03, 1.94	1.64, 2.02, 1.92
4	2.19, 2.76, 2.60	2.20, 2.80, 2.62	2.27, 2.74, 2.62
5	2.70, 3.46, 3.20	2.73, 3.45, 3.30	2.85, 3.42, 3.31
6	3.33, 4.24, 3.90	3.36, 4.20, 3.93	3.49, 4.19, 3.96
7	3.89, 4.90, 4.60	3.95, 4.90, 4.62	4.03, 4.85, 4.64
8	4.42, 5.61, 5.24	4.60, 5.64, 5.28	4.68, 5.65, 5.39
9	5.06, 6.37, 5.91	5.24, 6.35, 6.01	5.37, 6.41, 6.06
10	5.07, 7.02, 6.61	5.85, 7.01, 6.70	6.05, 7.11, 6.83

* Ratio represents number of events carried over from one day to next during 1000 day period over number scheduled for period.

**The first percentage represents utilization for the day-certain calendar mode. The second and third are for the adjusted and unadjusted forms of the continuous calendar mode models, respectively.

Second, we compared the date-certain and continuous calendar modes. An unadjusted version of the continuous calendar mode model provided bounds on system performance measures, illustrating the potential benefits of weekly scheduling. In general, the date-certain mode offered higher judge utilization and a lower rate of overscheduling than did the adjusted continuous version. On the other hand, the adjusted version had the advantage of zero waiting time for parties and witnesses. This trade-off of judicial utilization and party convenience must be weighed in an attempt to mesh case flow management policies with system goals. The models employed here represent opposite ends of the utilization-convenience continuum. The construction of complex models, which seeks to balance utilization and convenience in satisfying multiple objectives simultaneously, was suggested. Finally, the importance of considering multiple factors and objectives when choosing and evaluating case flow management systems was emphasized.
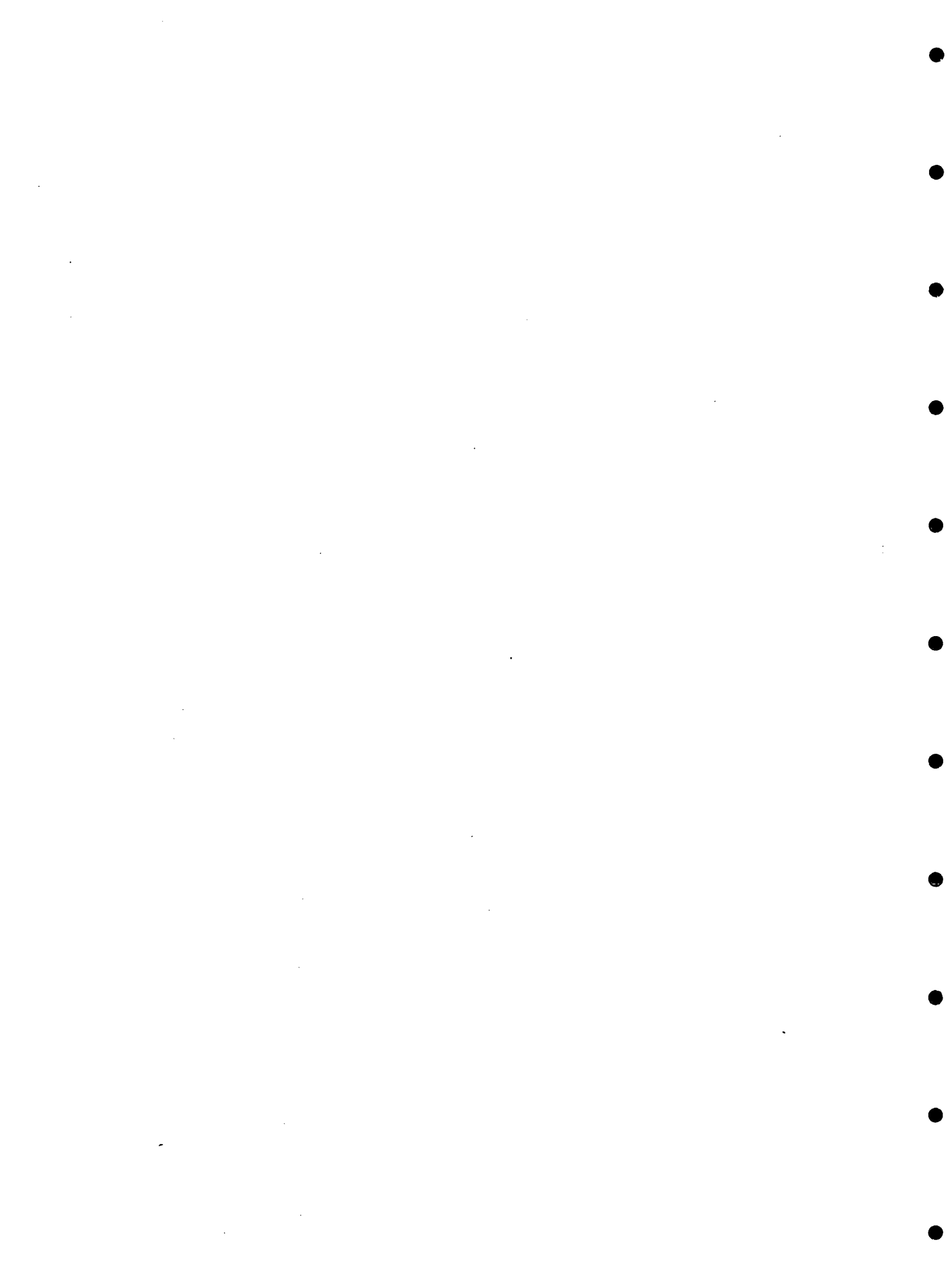
III

ISSUES IN COURT SCHEDULING MANAGEMENT

INSLAW's NSF-funded <u>Guide to Court Scheduling: A</u>
<u>Framework for Criminal and Civil Courts</u> proposes a model court
scheduling system comprised of management calendaring, and
data-support components. The management component embraces 11
scheduling-related areas that are worthy of a court's judicial
and administrative attention. These 11 items range from the
lofty need to establish scheduling goals and objectives to tne
more concrete requirement to plan for the consolidation of the
appearances of police officers in order to conserve their time.
While the model is descriptive of the many interrelated facets
requiring attention by the court managers it is, of necessity,
highly general.

The purpose of this chapter is to help interested courts
take a second step on the path toward improved scheduling,
specifically to sharpen their focus on appropriate issues and
illustrate trade-offs or costs by means of concrete examples.

The issues selected for discussion arose out of the
Phase I survey and analysis of 30 courts and their scheduling
processes.* Most of the problems plaguing case scheduling
were found to fall into a few general categories, herein
referred to as issues. Attempts during the Phase I survey

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* See Phase I report of INSLAW's NSF-funded court-scheduling
project.
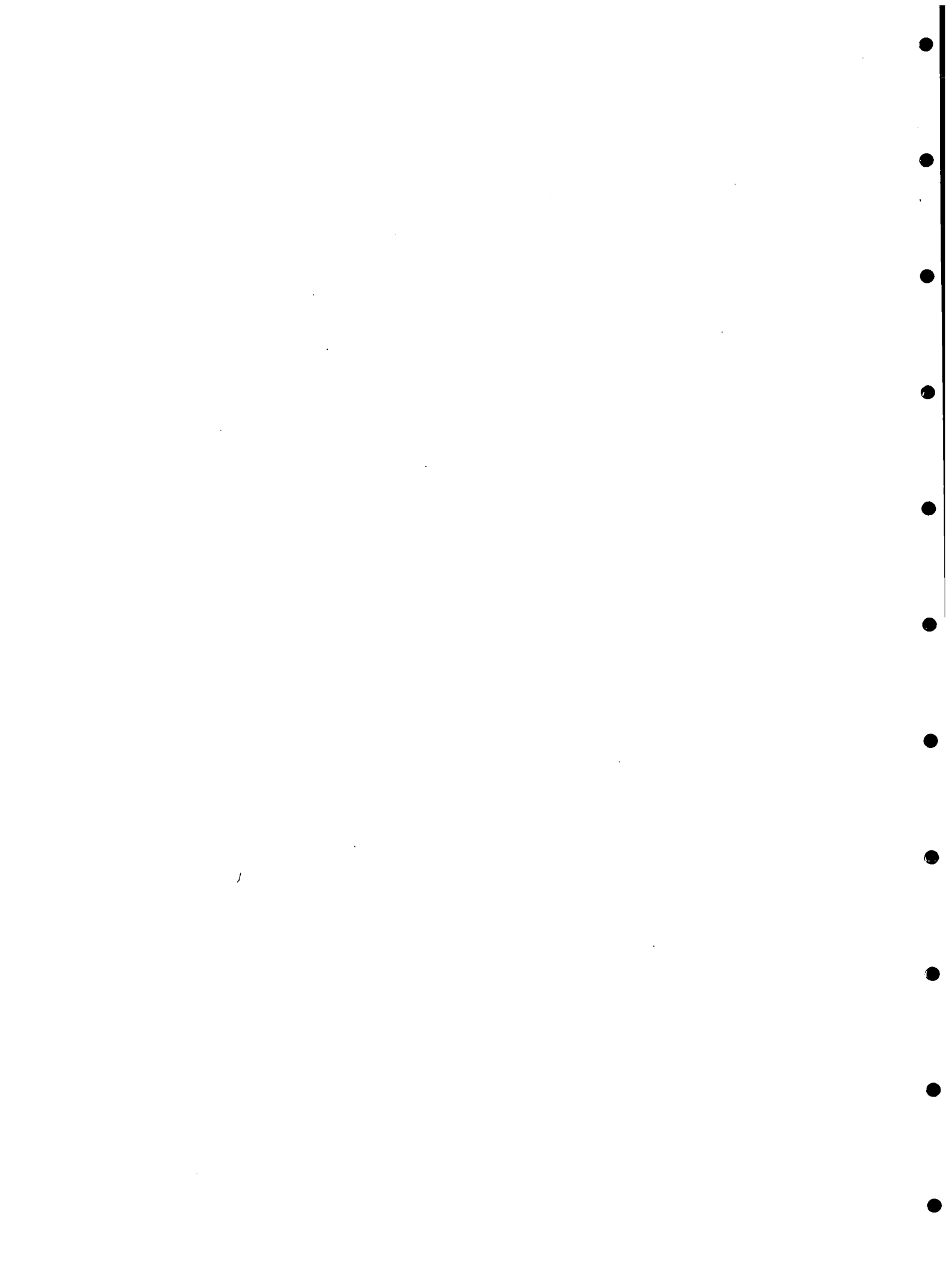
to evaluate alternative scheduling procedures foundered due to a lack of measurable purpose on the part of the courts. Judges viewed scheduling as the domain of the clerks and provided no policy guidance. Without the unifying influence of goals and objectives, most of the scheduling systems surveyed were found to contain fragmented, often dysfunctional procedures, which had become the de facto scheduling policy of the court.

As a first step toward developing a comprehensive scheduling system, courts need to review relevant policies and provide guidance in the areas discussed below.

How Many Cases to Schedule?

The Civil Division of the Los Angeles County Superior Court is very large and has an appropriately complex formula for determining the number of cases to set for trial. The computation includes the following: number of days in the period, total judges available, absence factor (absences range from 4 to 40 percent of total judge days), setting factor (disposition rate), daily calendar limits (30 percent set for Mondays and 7 percent for Fridays), and backlog ratio (proportion of pending case load in jury, nonjury, and short cause).* In reviewing the formula, one is first impressed by the court's ability to describe its _ _ _

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*See INSLAW, Guide to Court Scheduling: A Framework for Criminal and Civil Courts (Washington: 1976), p. 28.
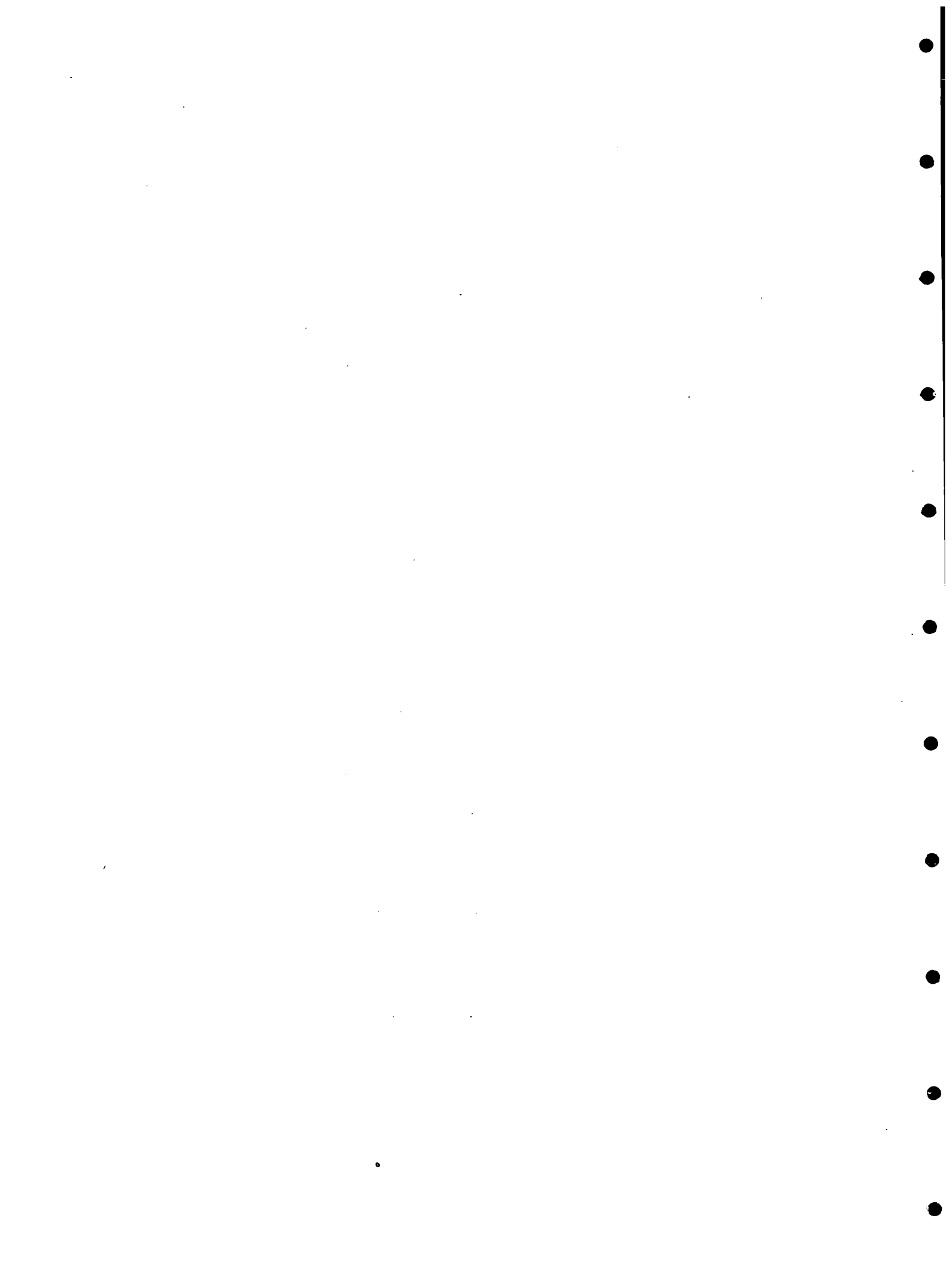
operation in quantitative terms and then by the embodiment of
policy in that formula. To begin with, the number of judges
available for the civil bench (then 45 out of 171) was the re-
sult of a policy decision. Obviously, the number of cases
that can be heard is directly related to the number of judges
assigned to hear them.

The first policy matter encountered in determining how
many cases to set is that of _judicial allocation_. As is the
case with all policy matters, judicial allocation involves
trade-offs. As more judges are assigned to criminal cases,
fewer judges become available to hear noncriminal cases;
fewer civil cases can be scheduled; and pending civil cases
must wait longer to be adjudicated. In many large urban
courts, civil litigants wait ten times longer for a disposi-
tion than their counterparts in criminal actions. In many
of these same courts, attention is so focused on speedy
criminal dispositions that the notion of trade-off implicit
in any policy decision has been forgotten. The allocation
of judge time across different case types (civil, criminal,
family, juvenile, probate, etc.) and across different calen-
dars (jury trials, court hearings, motions, settlement
hearings, etc.) involves a complex set of trade-offs, which
can either be addressed directly by the court as a policy
matter or can be handled in an ad hoc fashion.
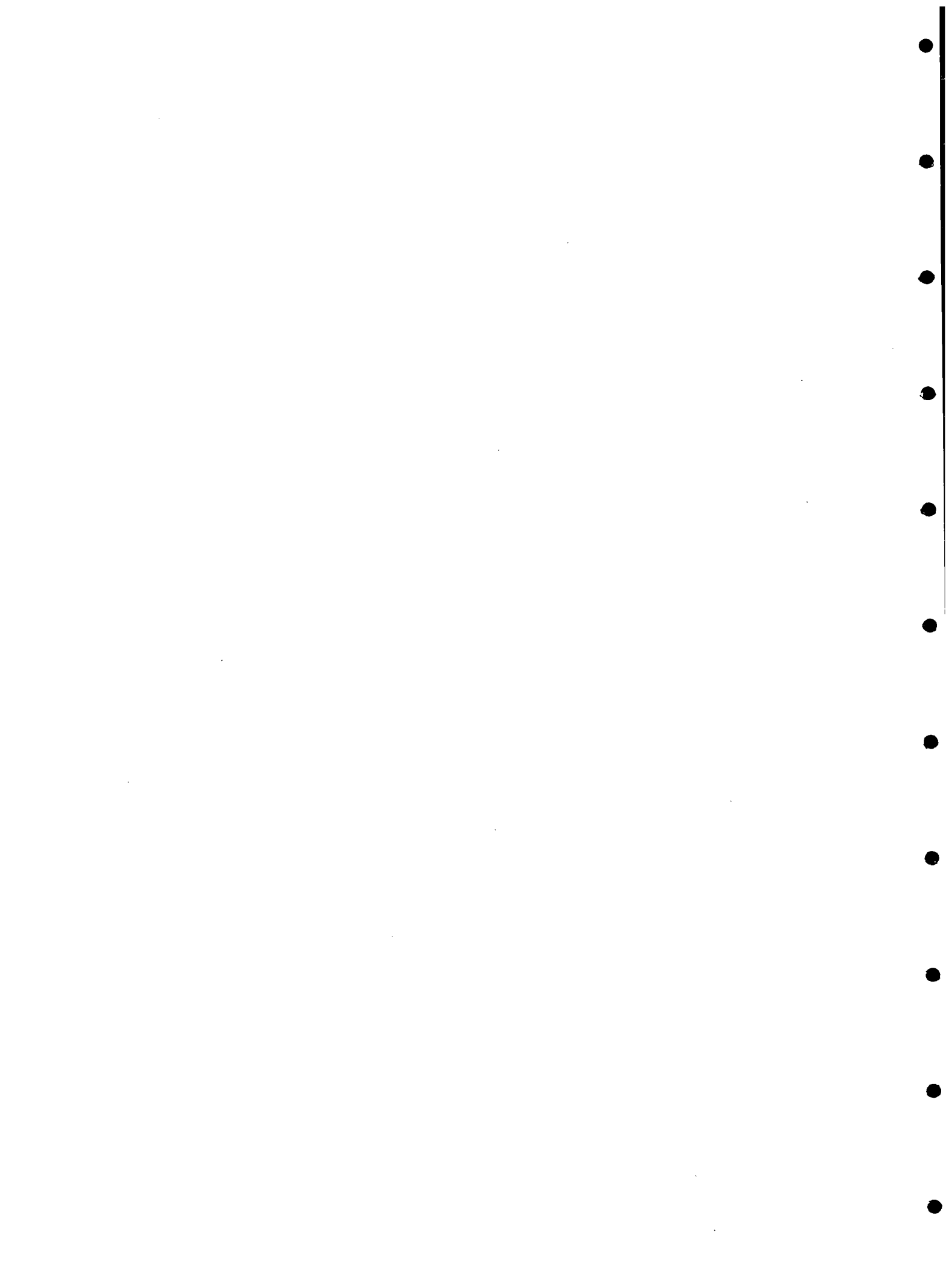
Industry has faced the problem of making decisions in situations involving complex trade-offs by, among other things, describing them mathematically, varying one factor at a time and considering the results. If we substitute delay for dollars, these same tools can be used to simulate the results of alternative policy decisions. A judicial allocation model is described in Attachment A.

Trade-offs implicit in the allocation of judge time are as applicable to a one-judge court or a judge under the individual assignment system as they are to the Los Angeles County Superior Court.

The next issue that must be addressed in determining how many cases to set concerns the overset factor. Every scheduling clerk knows that only about one in five cases (lower in some courts) will ever be tried and to keep the judges busy the calendar must be overset. The degree of overscheduling is a policy decision.

The adversary nature of litigation forces each side to emphasize the strengths of their case, the weaknesses of the other side's case, and the vagaries of a jury decision. Often emotions obstruct the possibility of a reasonable settlement. The result is that, while most litigants do settle or plead guilty, they usually wait until the eve or day of trial to do so. Schedulers compensate for these dropouts by setting more
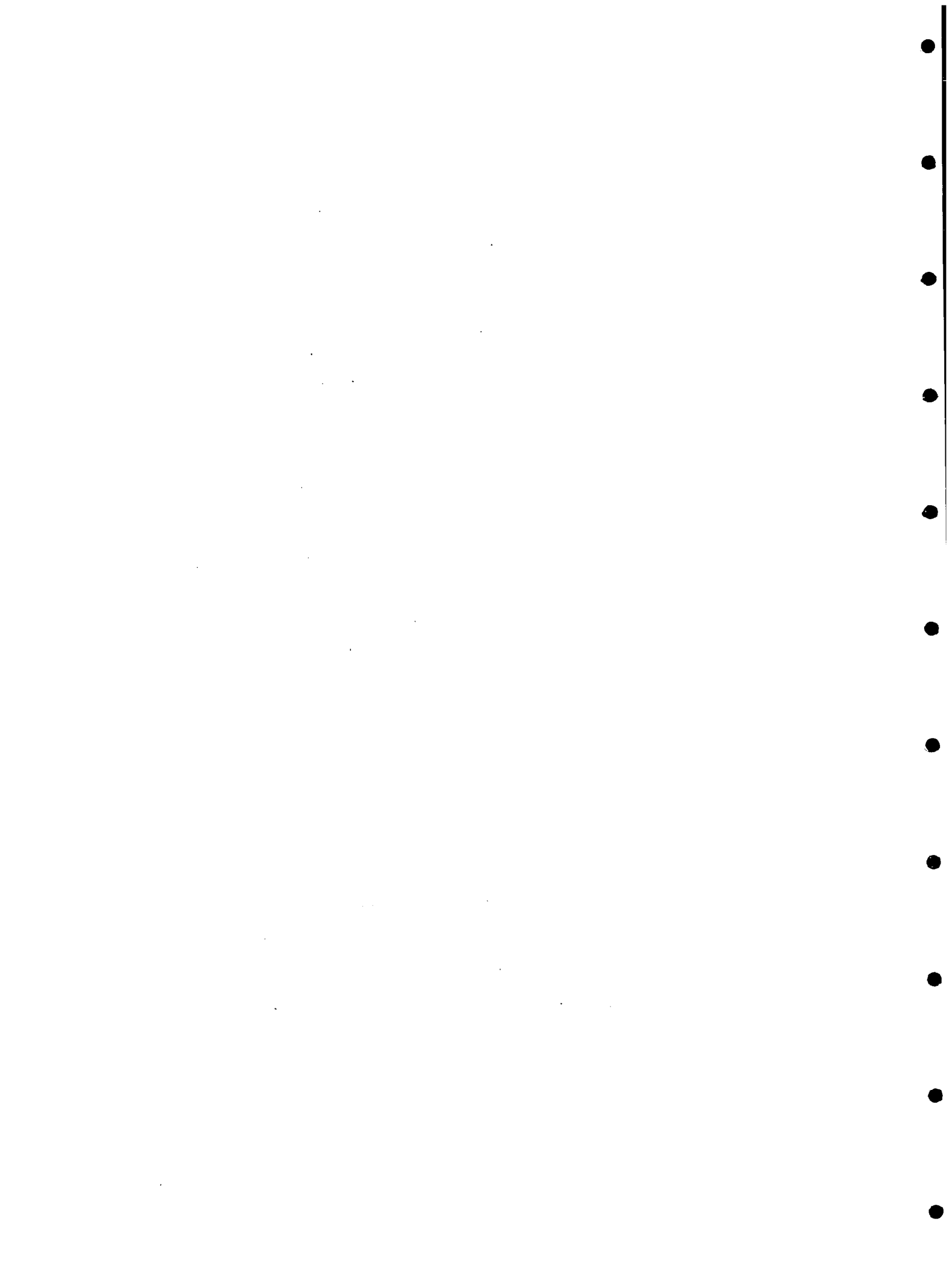
cases than can be heard. If they do not set quite enough to compensate for those that drop off calendar, judges are idle. If they are overly concerned about keeping all the judges fully utilized, they may schedule many more cases than could possibly be heard, forcing additional litigants and lawyers to spend needless time in the courthouse. The overset factor is the result of a policy decision on the trade-off between <u>judge utilization and participant convenience</u>.

Participant convenience is an objective with further ramifications. If attorneys' schedules are not taken into account, conflict in trial dates may result or an attorney may not be able to present a case when it is called, both situations resulting in a continuance or adjournment. If police officers' schedules are not taken into account, the need to appear in court for each case may result in substantial overtime pay for officers' appearances or in case continuances because of an officer's inability to appear. If a witness's convenience is not considered, excessive delay may cause a witness to be uncooperative, which may result in the dropping of a case.

A clear instance of the multiple factors affected by efforts to make efficient use of judge time occurred in the Wayne County Circuit Court, Civil Trial Division, during the period from January 1976 through October 1976. Increasing the number of cases scheduled directly affected the number of trial commencements, settlements, and adjournments, all of which necessarily affected participant convenience.
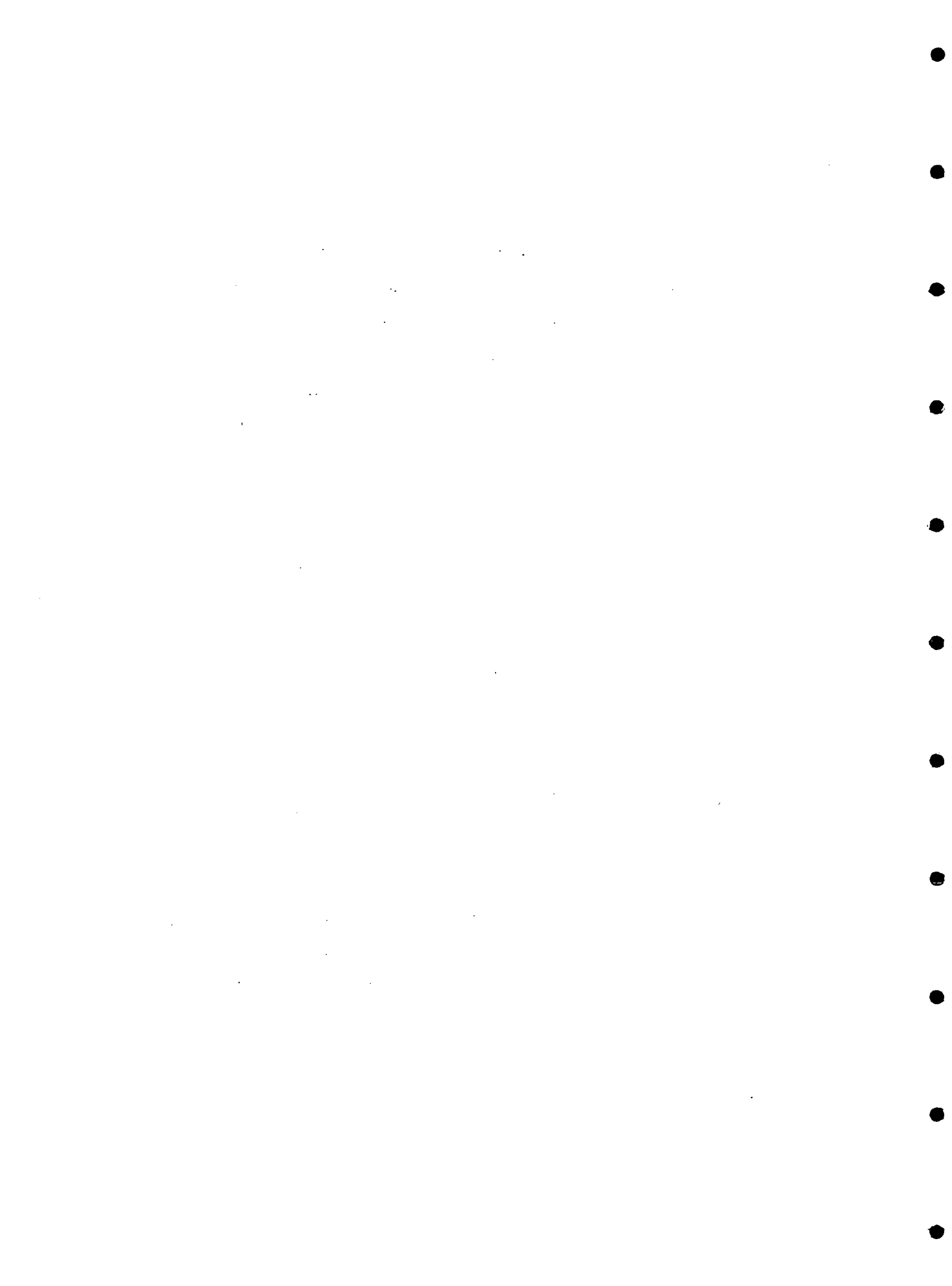
Exhibit III-1 shows the relationship of the number of cases scheduled for trial to the average number of trials started. Each data point is marked by an encircled figure indicating the number of day's worth of observations associated with that point. For example, there were a total of 32 days on which exactly 23 cases were scheduled for trial and on which the average number of trials started was 3.97. The curve through these points was approximated and reflects an attempt to weight each data point according to the number of observations associated with it.

The exhibit indicates that as the number of cases scheduled for trial increases, the number of trials actually begun also increases. Consequently, participant convenience as well as judge utilization would seem to be more efficiently served as the number of scheduled trials increases. However, these concomitant increases appear to have an upper bound of six or seven trials as the maximum number commenced on any one day. This upper limit is probably more closely related to the number of judges available than the number of cases scheduled. The data also seem to indicate that trial efficiency may even decrease as a large number of cases, such as 30 or more, are scheduled; as more time is required for administrative matters, less time is available for trial for both judges and participants.

EXHIBIT III-1

RELATIONSHIP OF NUMBER OF CASES SCHEDULED TO NUMBER OF TRIALS STARTED

NO. OF CASES SCHEDULED

III-7
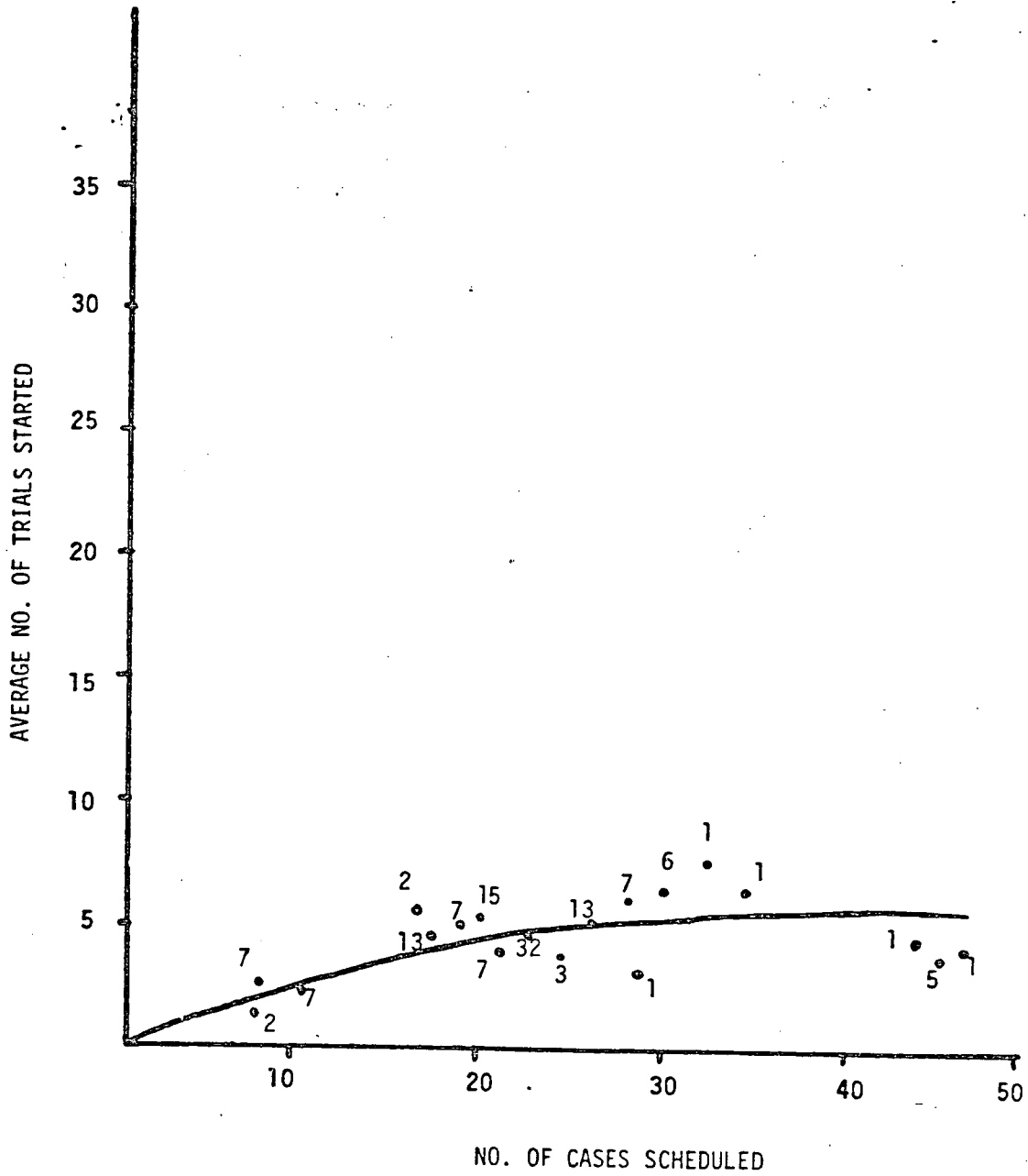
Exhibit III-2 shows the relationship of the number of cases scheduled to the number of settlements prior to trial. The graph indicates that scheduling parameters, in this case the number of cases scheduled, can be an effective policy-making tool for the court. The clear and strong relationship between the two variables suggests that the threat of trial induces settlements. As the number of cases scheduled for trial increases, the number of settlements increases dramatically. As the disposition rate increases, the backlog of the court is reduced without requiring either judge time or participant time. The cases that are settled would probably have had the same outcome, only at a later date.

So far it would seem that increasing the number of trials scheduled serves the interest of both judges and participants more efficiently. However, increasing the number of cases scheduled cannot continue without increasing the capacity of the court at some point. Exhibit III-3 shows the relationship of the number of cases scheduled for trial to the average number of adjournments (continuances) granted by the court or the assignment office. Clearly, as the size of the calendar increases and the court's capacity remains the same, only some of the work load is taken up by increased settlements. The remaining cases must be adjourned and rescheduled for

EXHIBIT III-2

CASES SCHEDULED VERSUS PRETRIAL SETTLEMENTS

NO. OF CASES SCHEDULED

III-9
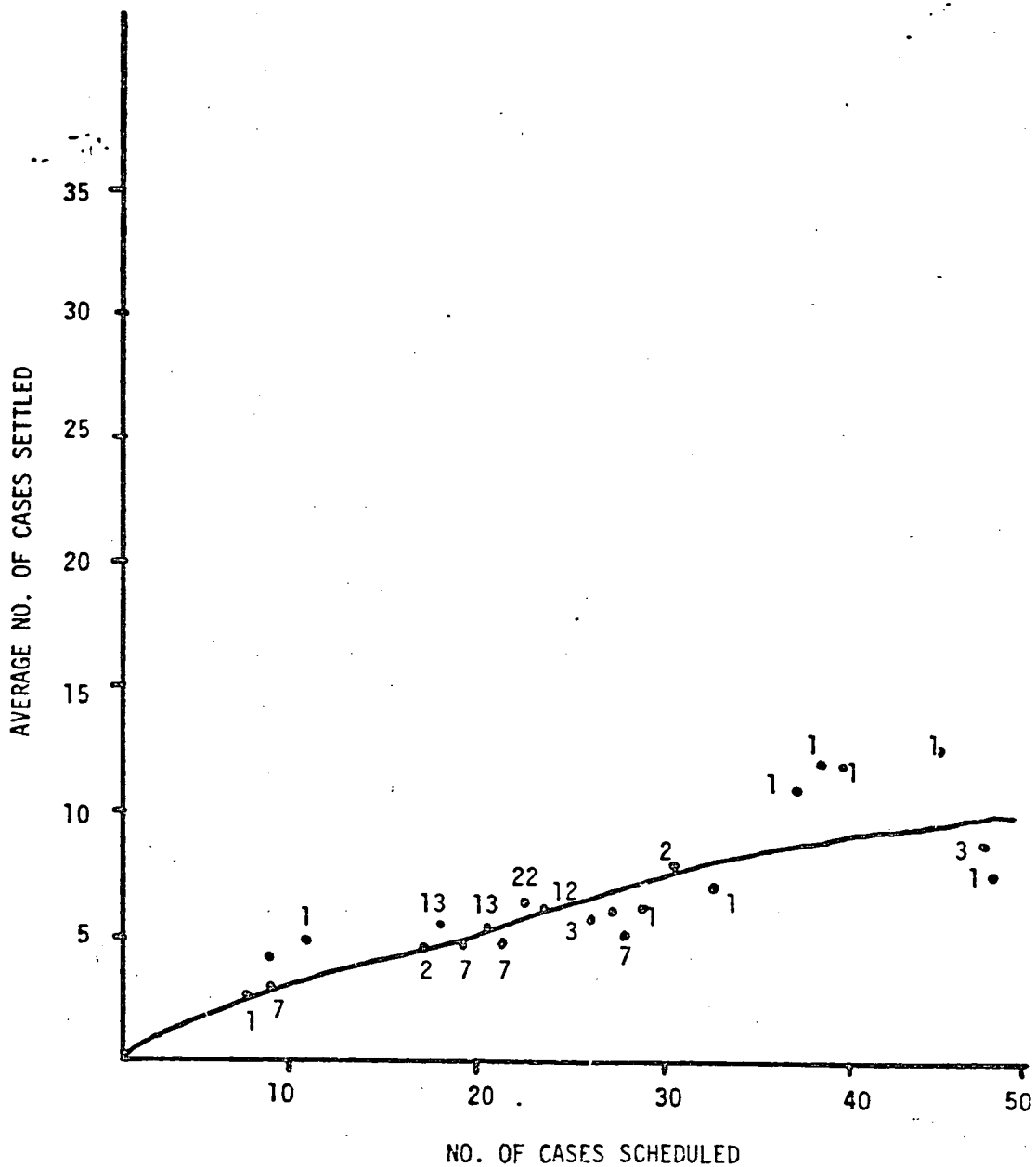
EXHIBIT III-3

CASES SCHEDULED VERSUS ADJOURNMENTS

III-10
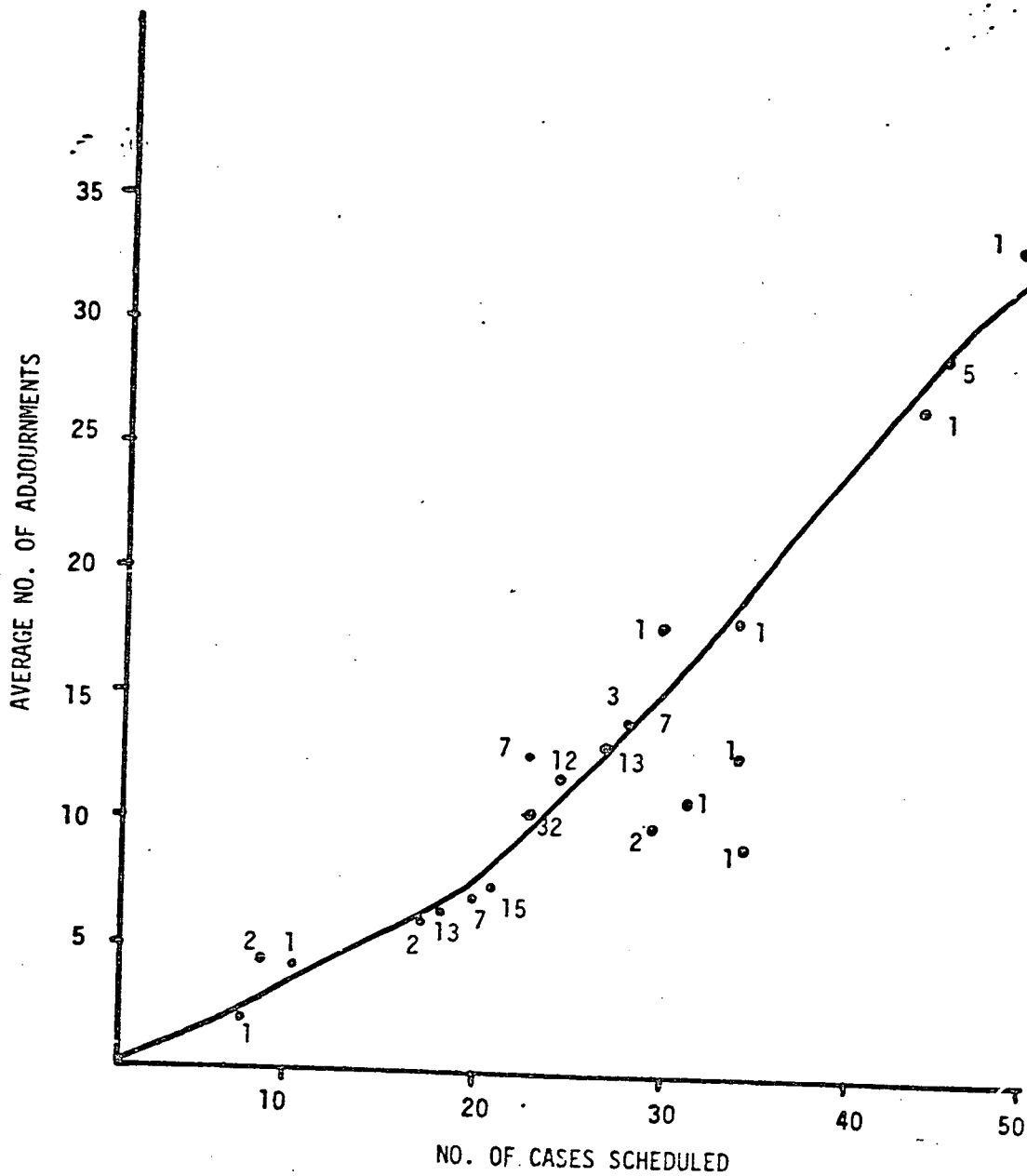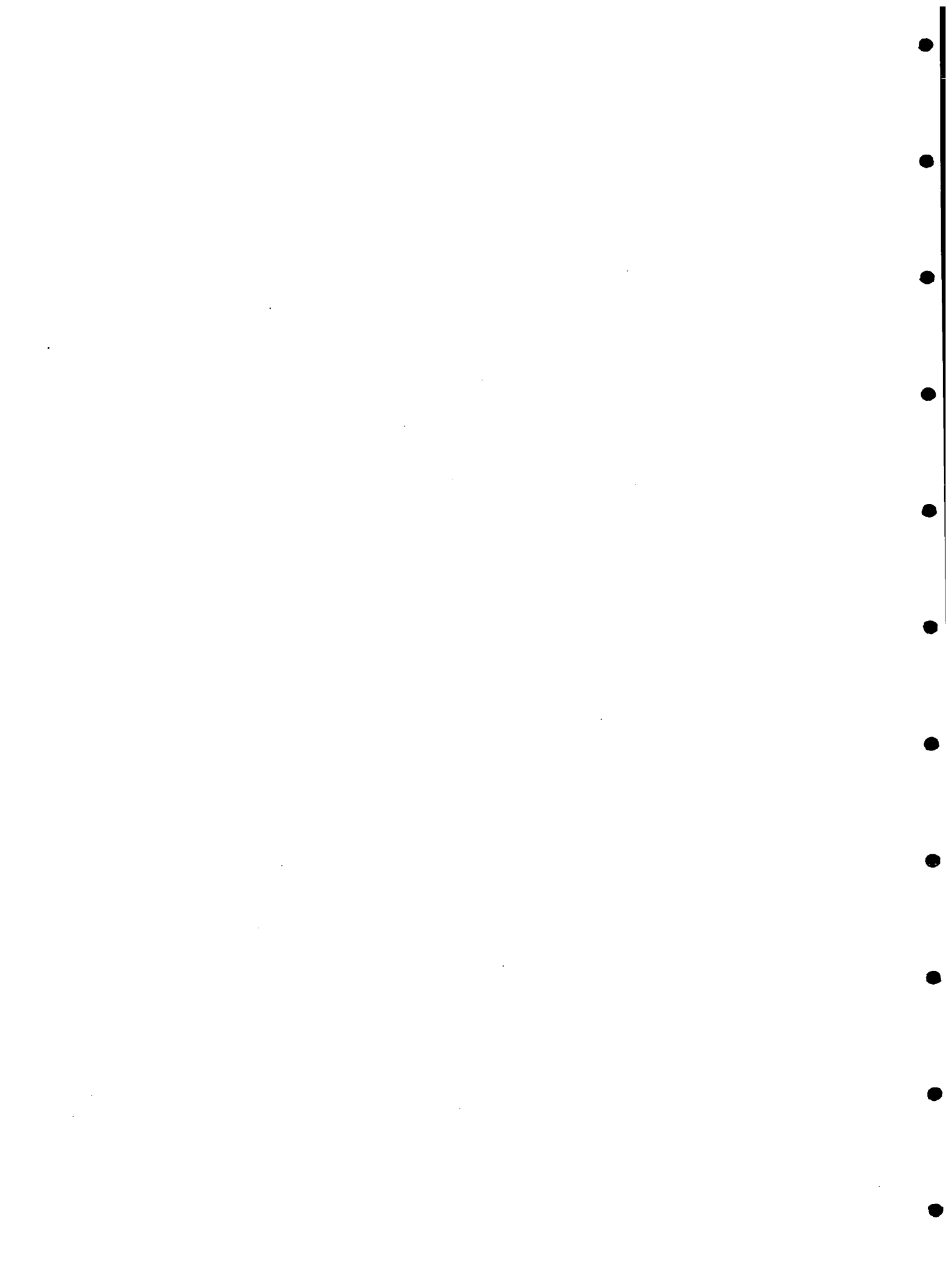
another day. This inconveniences participants since they must

reappear at another future date to have the case adjudicated.

The increase in continuances as the calendar size increases

is startling; if 50 cases are scheduled for trial, as many

as 35 will have to be rescheduled. If a case must be

rescheduled, the lawyers, police officers, and witnesses will

have gathered needlessly on the original date.

Given the results of the study of the Wayne County Cir-

cuit Court (Civil Division), determining the best calendar

size is not a simple process. Increasing the number of cases

scheduled positively affects both the number of cases

started and the number of settlements before trial. However,

the concomitant increase in adjournments is a strongly nega-

tive effect of increasing the number of cases scheduled.

Deciding the best calendar size requires that a court clearly

articulate its objectives about disposition rates and partic-

ipant convenience. Then, a court can assign a cost, sub-

jectively or objectively, to adjournments relative to dis

positions by trial or settlement.

Exhibit III-4 illustrates all of the effects of increasing

the calendar size in the Wayne County Circuit Court, Civil

Division; the graph also illustrates the need to consider a

range of objectives when determining the calendar size. If
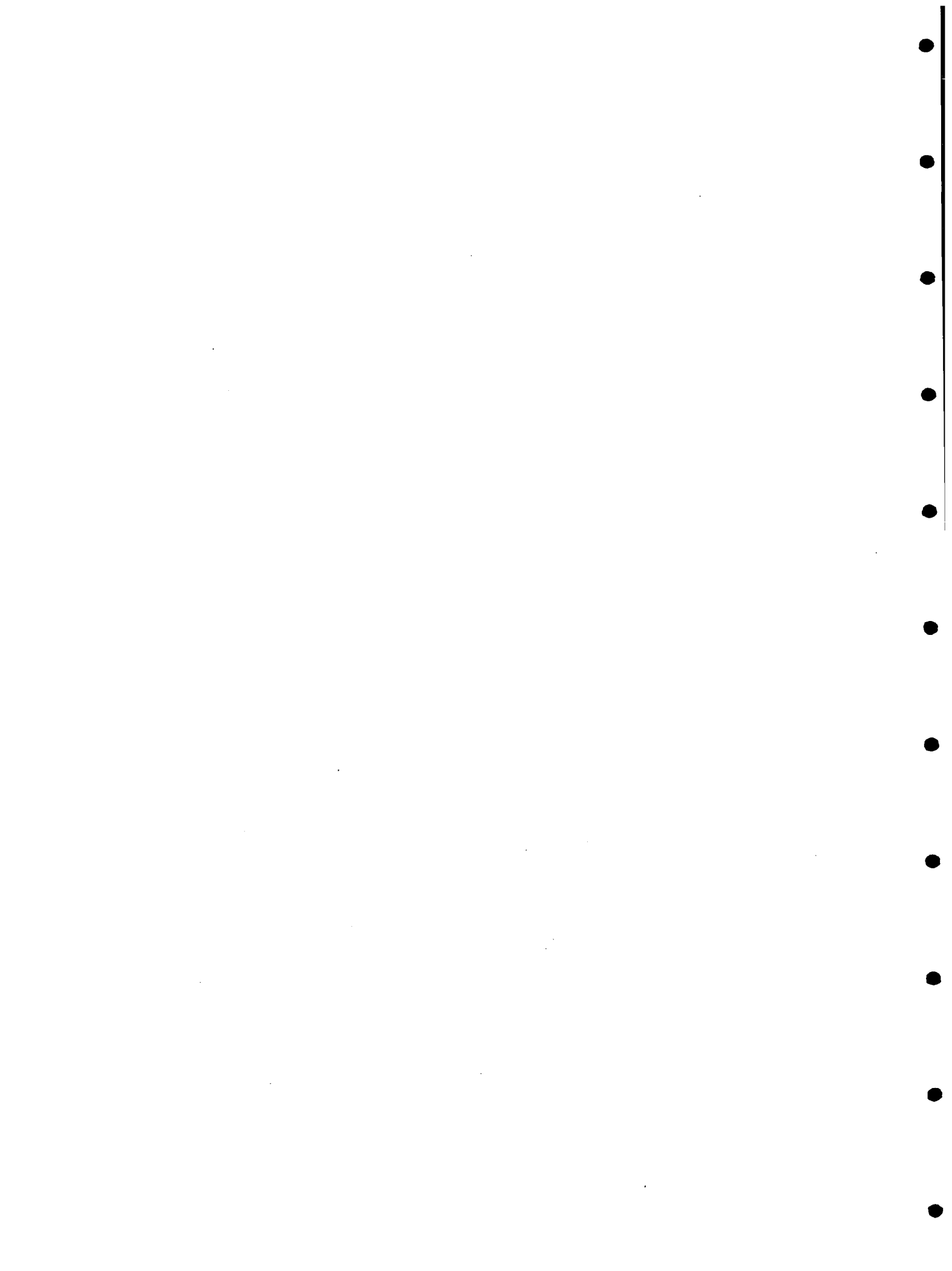
EXHIBIT III-4

ADJOURNMENTS, SETTLEMENTS, AND TRIAL STARTS AS A
FUNCTION OF NUMBER OF CASES SCHEDULED
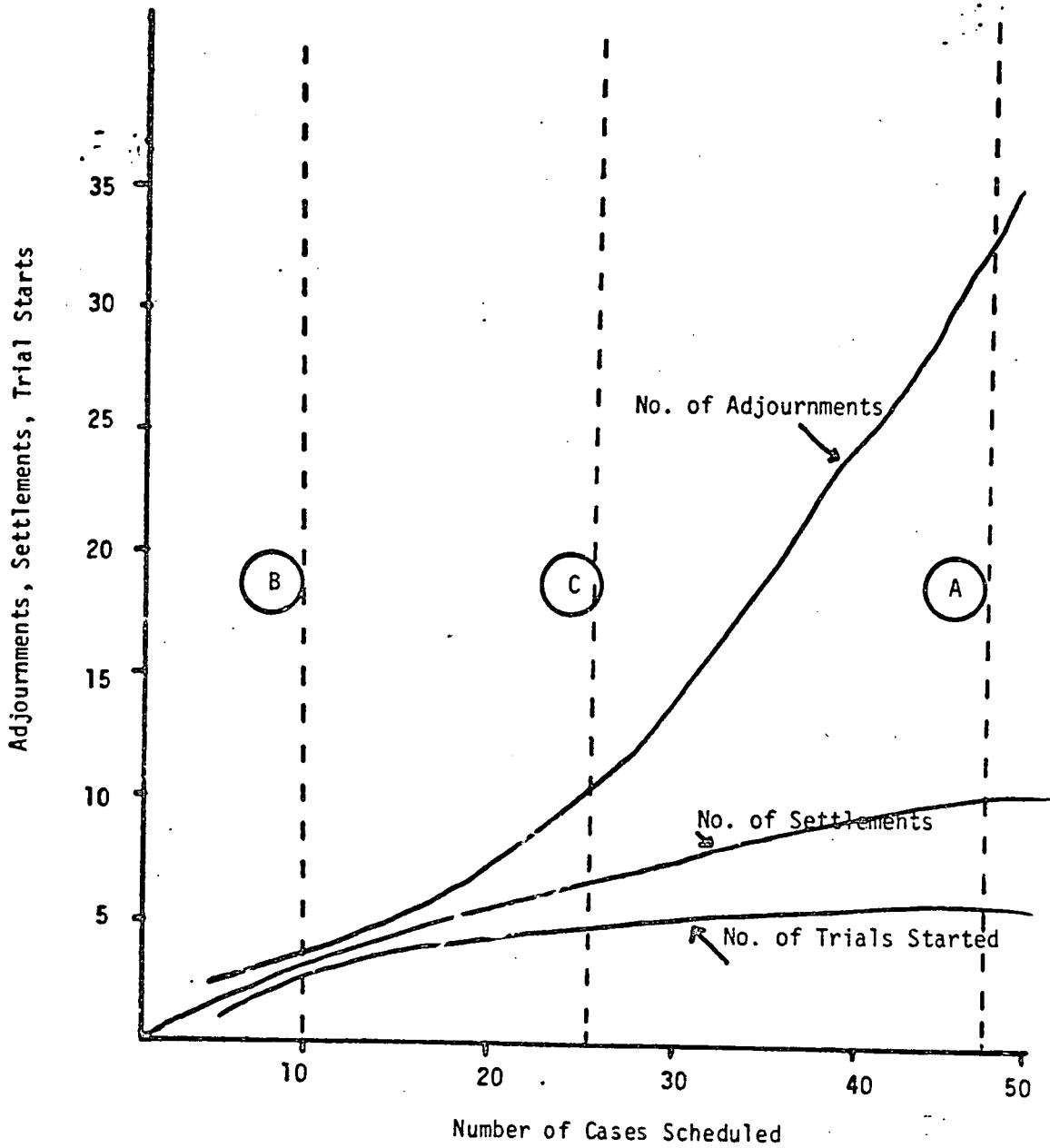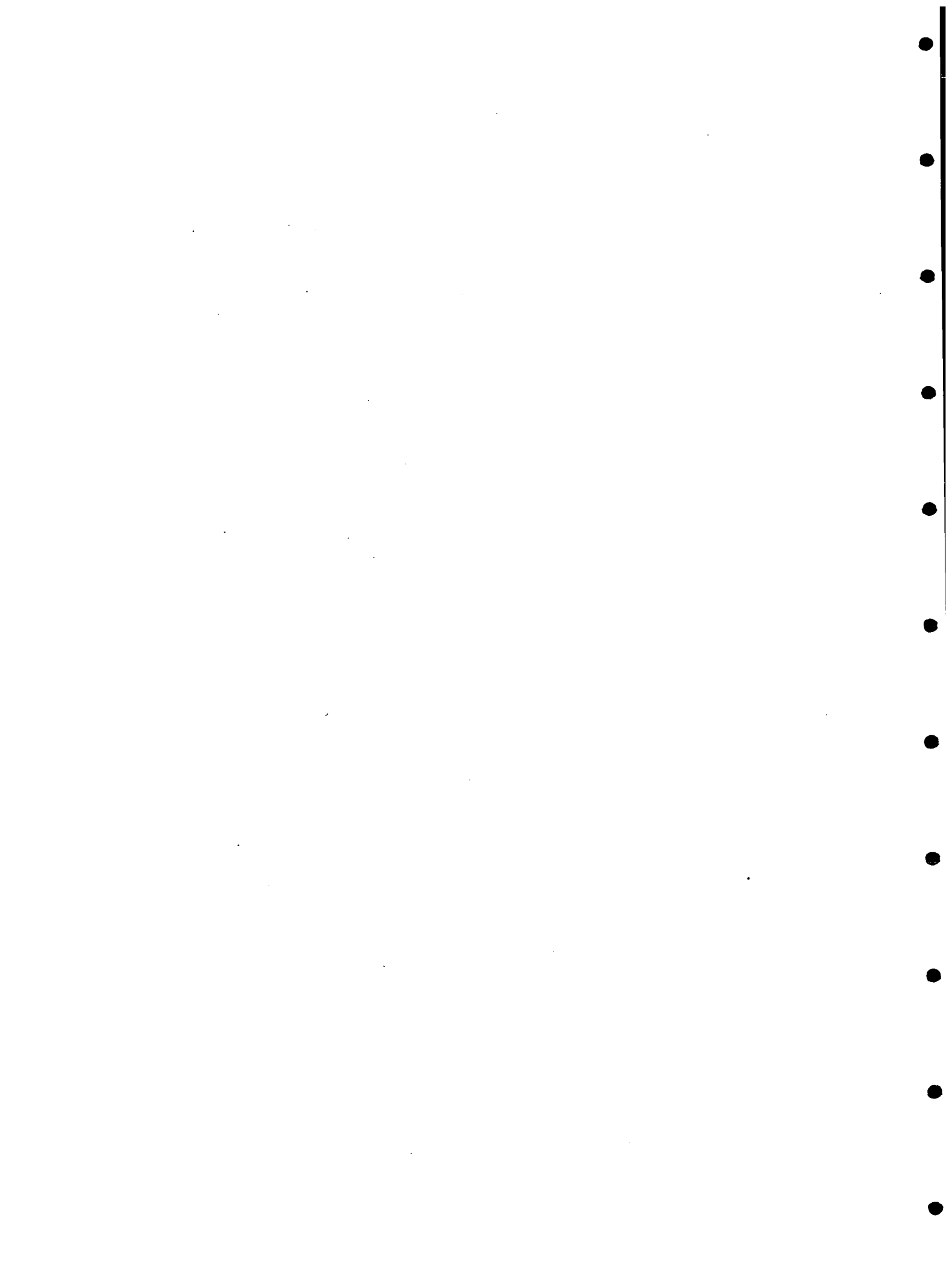
the court wishes merely to increase dispositions (objective #1) without regard for participant convenience, Point A represents the "best" policy (i.e., scheduling 48 cases for trial of which, on the average, 6 will be tried, 11 settled, and 31 adjourned). However, the court may wish to decrease participant inconvenience (objective #2) by assigning a high cost to adjournments relative to the number of dispositions. Then, Point B would represent the "best" policy: very few adjournments and relatively few dispositions.

Neither of these policies, however, seems a reasonable approach for the court because at each extreme only one objective is considered. A good scheduling policy would lie somewhere between Points A and B. For example, at Point C the cost of an adjournment to disposition rate and participant convenience is approximately equal. Scheduling 25 cases would allow, on the average, 5 cases tried, 7 settled, and 13 adjourned. Reasonable policies appear to range from 20 to 40 cases scheduled per day. The policy selected by a court should reflect its judgment about a balance between court productivity and participant convenience. This policy will also be affected by the court's continuance policy, for a lax attitude toward the granting of continuances makes the calendar and concomitant opportunity for trial less certain and more susceptible to manipulation.
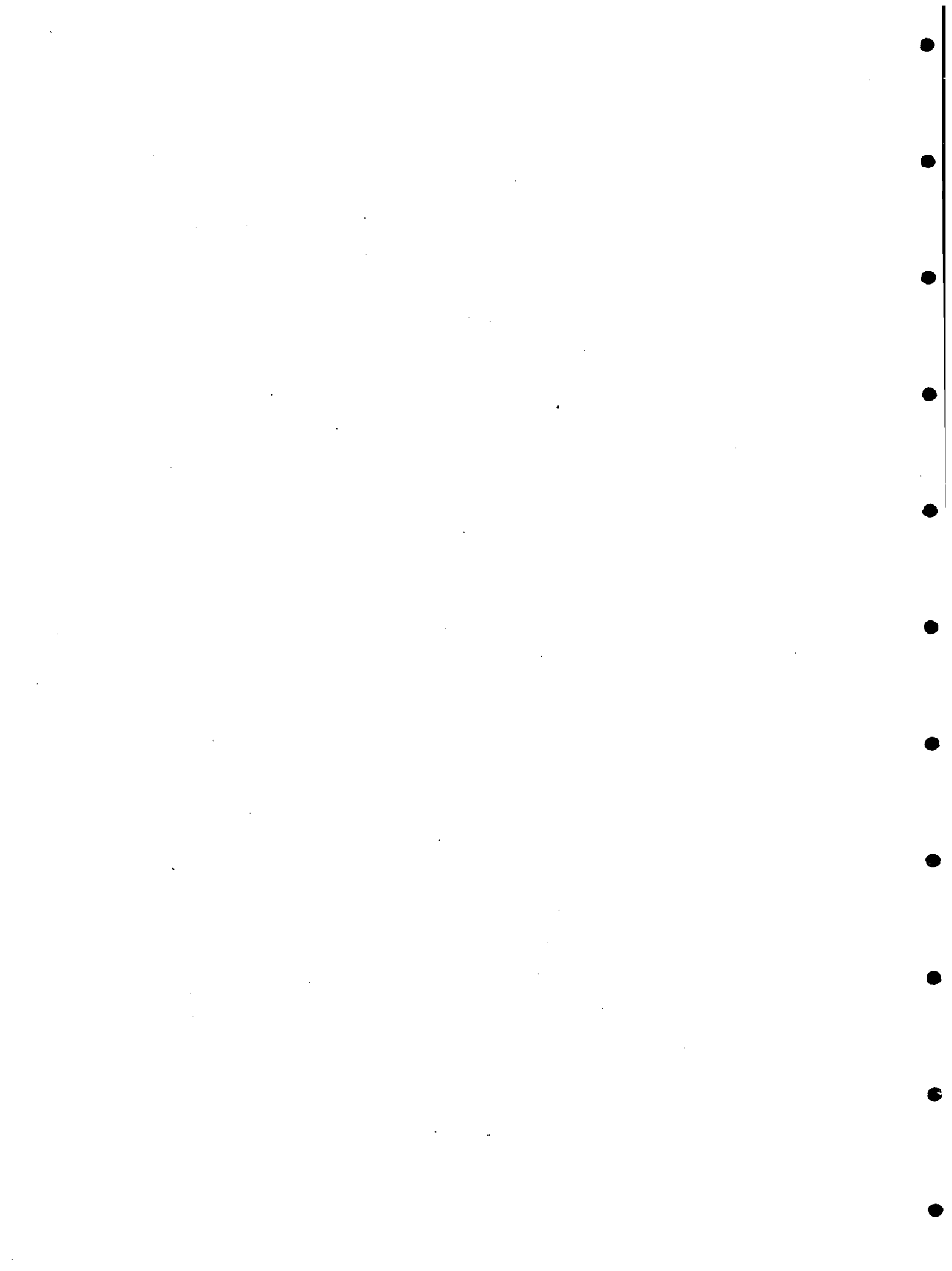
A third policy area to be addressed when determining how many cases to set concerns <u>adjournments or continuances</u>, just discussed in the Wayne County example. It was shown that increasing calendar size above some point results only in more continuances. Besides the inconvenience to attorneys, litigants, and witnesses, a lack of credibility in the scheduling process builds up and attorneys appear "not ready" for trial and request more continuances. This spiraling process is described in the seminal work of Maureen Solomon, <u>Caseflow Management in the Trial Court</u>. The problem with controlling continuances lies in separating the valid requests from the frivolous and in keeping court-generated continuances (attorney conflicts, court unable to reach) to a minimum. A definitive policy specifying acceptable reasons for continuances, the conditions under which they may be granted, who may grant them, and the mechanism for requesting them needs to be established by the court. Also, a feedback mechanism accounting for all continuances granted, moving parties, and reasons is required to monitor that policy. It has been suggested that a form, the ubiquitous collector of information, can be used to ask attorneys questions perhaps too embarrassing for a judge to pose directly.

Although the case law on continuances is meager, it does offer a starting point in setting policy. Case law must be supplemented with the experience and wisdom of judges and administrators into an articulate, well-promulgated and evenly enforced policy. Attachment B, <u>The Continuance Policy of the Court</u>, elaborates on this point.
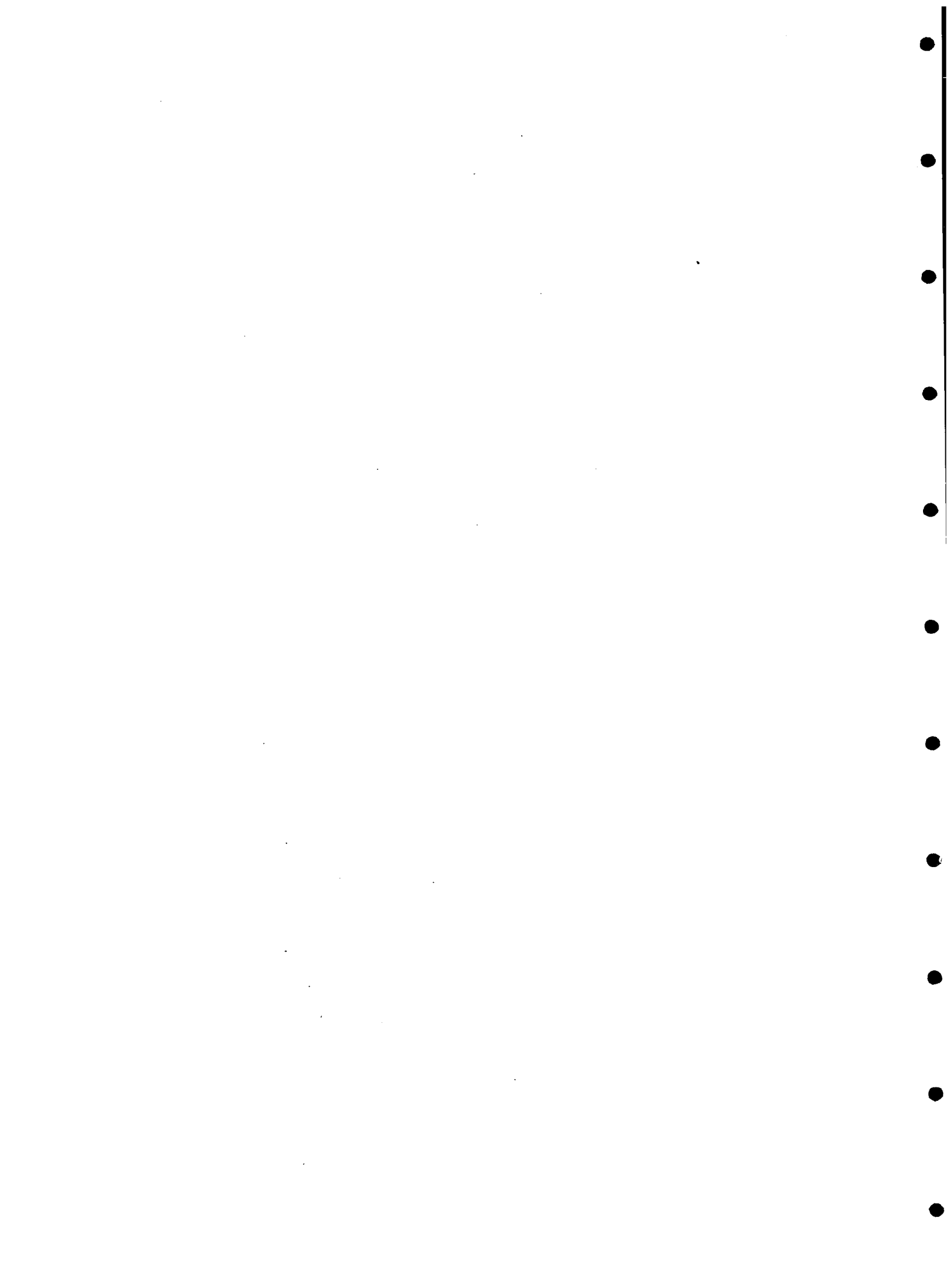
We have, so far, identified three issues that must be addressed in determining how many cases to schedule:

- Judicial allocation.
- Judge utilization versus participant convenience.
- Continuance policy.

Which Cases to Schedule First?

All cases requiring adjudication will ultimately be scheduled for hearing, but which case(s) should be scheduled _first_? Our notions of justice and fairness require that all cases not be treated equally and that some receive priority attention. Criminal cases are given preference over civil, and jailed defendants scheduled before those on bail. Among civil cases, those for injunctive relief or involving the state are accorded priority in setting hearing dates.

Attention is first placed on a group of cases or calendars when judicial resources are assigned to hear them. As has been mentioned, judicial allocation involves trade-offs and must reflect court policy regarding the distribution of the scarce resource of judge time.

Within any given calendar or like grouping of cases, additional selection criteria are at work regarding the decision that this case type be given preference over that type and this hearing receive priority over that. These selection criteria are influenced by legislation, local court rule, unwritten policy, and clerical whim. Whenever the decision of hearing either A or B

has been left to the scheduler who has not received definitive guidance, clerical whim has become de facto policy.

To properly address this issue and establish a pecking order for the assignment of hearing dates and times, the court needs to consider the entire range of legal and managerial considerations—and at what point each occurs in the proceedings—across all types of cases within its jurisdiction.

To establish selection criteria applicable to different case types and hearings, the court may wish to consider the relative costs, both social and economic, of delay. Assigning time standards to the periods between proceeding points helps to compare civil cases awaiting settlement conference with criminal cases awaiting preliminary hearing, for example. A backlog situation can also be identified whenever a "stage" has more cases than can be acted upon within the allotted time, given the court resources available. A court's historical disposition rate for a given stage can be used to warn of backlog situations before they occur. And, since each court defines stage criteria and associated times, this flexible method of case flow management can be sensitive to local case loads, case mix, priorities, and objectives. Priorities are increased by decreasing the allotted time in a particular stage. A basis for according aspects of civil case processing priority over criminal case processing may be revealed through the identification of their respective backlogs.
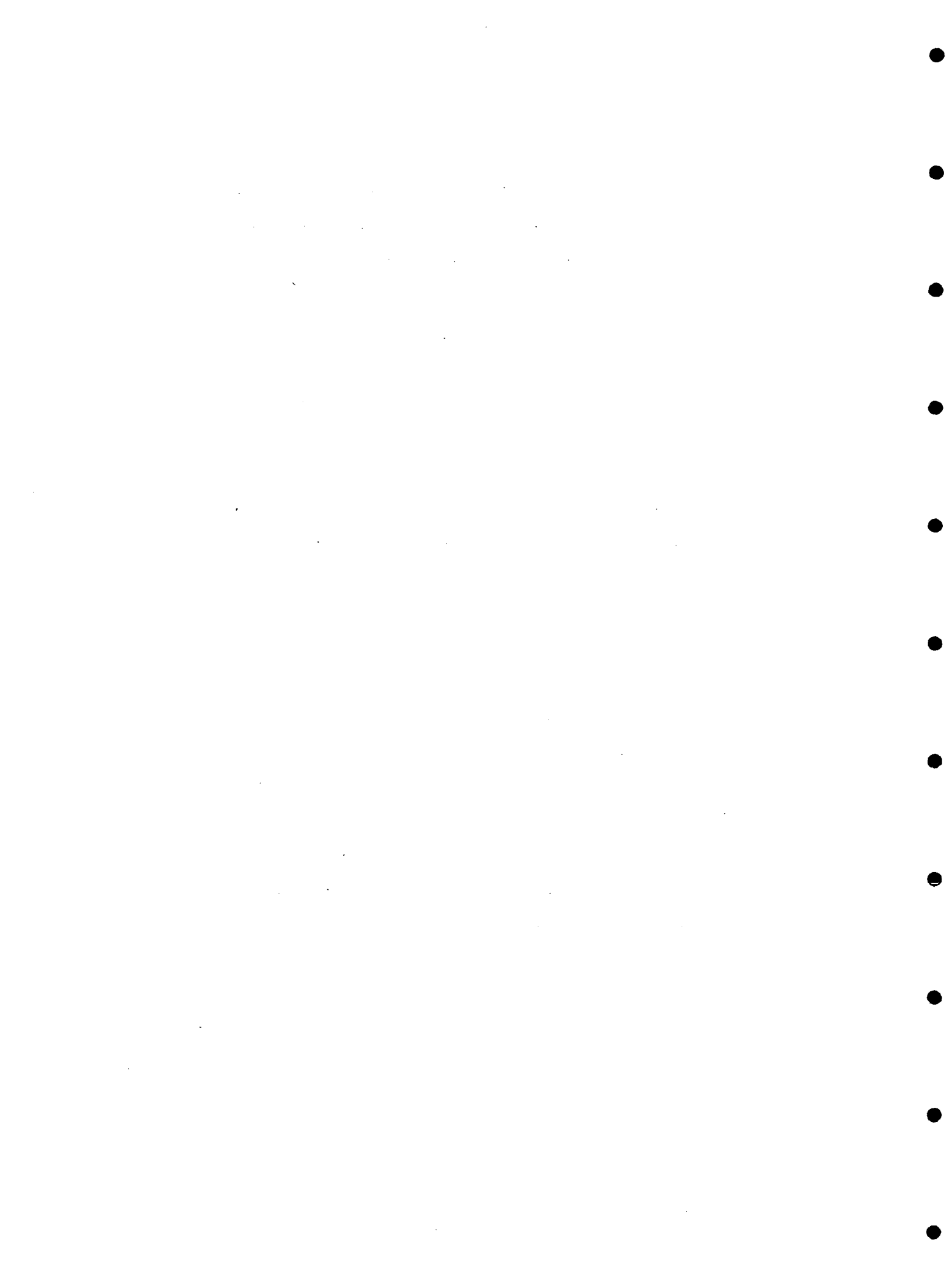
Naturally, priorities assigned to a given processing stage may tend to increase, reflecting the disparity between work load and resources. This will suggest the court address the allocation or reallocation of its judicial resources from time to time in order to realign processing time/capacity in each stage.

For a court to set up a flexible structure reflecting relative scheduling priorities among types of cases and types of judicial events/hearings, some knowledge of present operations will be required. This knowledge can be obtained by means of a systems analysis to portray not just case flow but also work load, the application of judicial resources to that work load, and the results thereof.

An analysis of the Wayne County Circuit Court revealed that, among other things, 98 percent of civil case load dispositions required minimal judicial involvement; 33 percent of these were remands and no progress dismissals which could possibly have been diverted shortly after filing or at issue instead of later. This may suggest the need for an additional screening process or stage. The data analysis, combined with a knowledge of court procedures, also suggests that a 40 percent trial adjournment (continuance) rate be trimmed to strengthen the threat of trial immediacy and produce earlier settlements. Since only 2 percent of the civil cases were disposed by trial, this appears reasonable. It also appears that the more than 1,500 cases requiring trial each year could be accommodated at a far earlier date if the other cases requiring little or no court
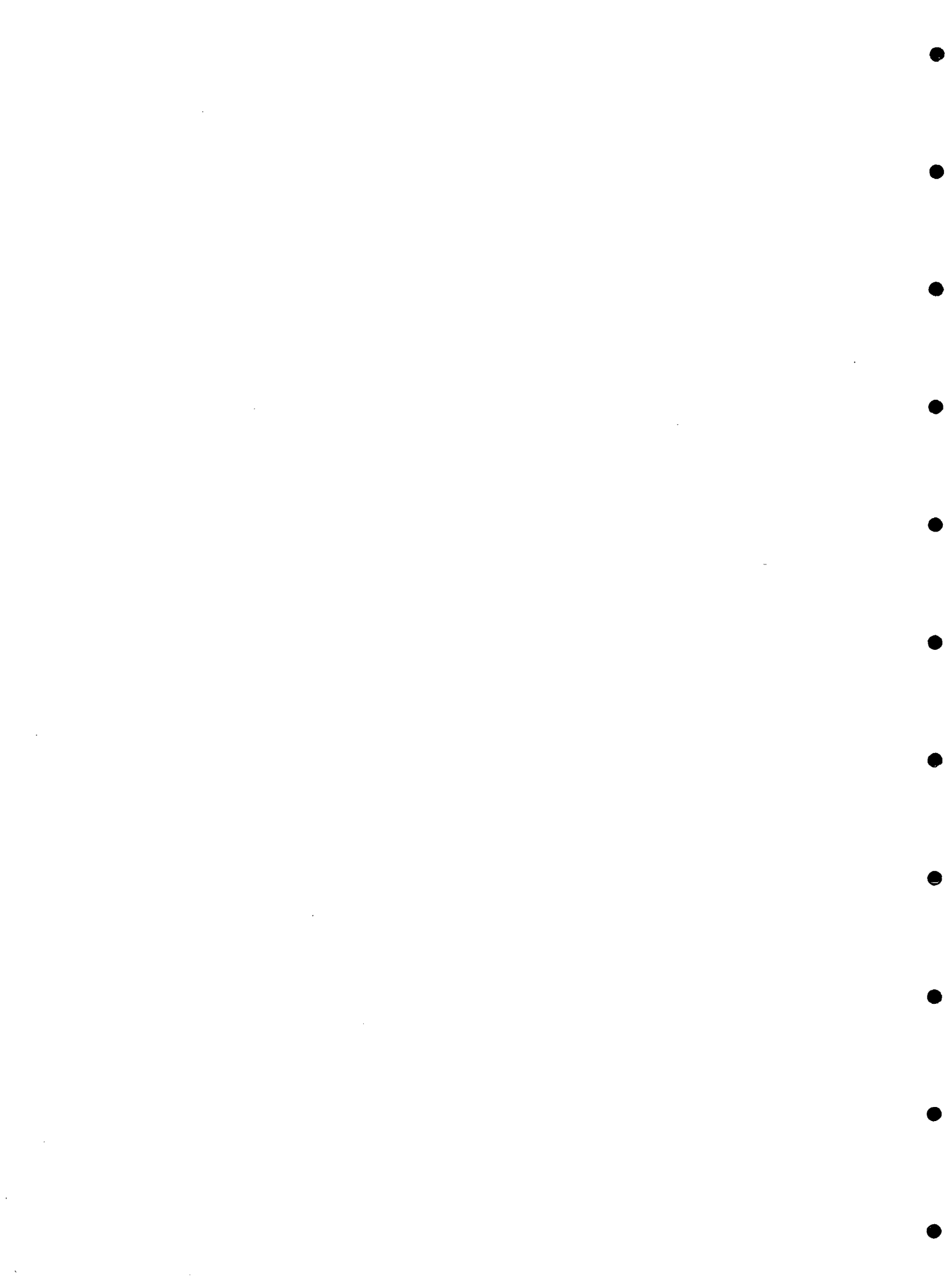
action could be identified and dismissed within a reasonable time after filing or at issue. More data and analysis (research) might help the court in this area.

Determining which cases to schedule is a function of court resolution of three policy issues: judicial allocation, case/event prioritization, and definition of backlog. These issues are related and interdependent and should be viewed and adjusted as a system, not as a collection of independent actions.

What Changes to Consider ?

Improving scheduling also means making changes and, in addition to the policy-related issues just described, other issues will be raised in the change-making process that deserve consideration. These are discussed here because an effective scheduling system touches many facets of court administration and ought to be considered in this more comprehensive light. The policy review process frequently discloses the difference between required policy and desired policy. The former represents legal requirements given to the court by legislation and the decisions of superior courts. The latter represents true policymaking for the court, because goal setting and decisions regarding trade-offs are within judicial discretion. As an example, a legislated speedy trial rule requiring trial within 90 days of arrest must be honored by the court and involves no policymaking. The decision to (attempt to) try civil cases within 12 months of the at-issue date (absent legislation)

represents a court-set goal and a resource-allocation policy to be implemented.

Additional issues associated with a comprehensive scheduling system include: court organization, data-support costs, quantifiable performance measures, and evaluation mechanism.

Court organization and the age-old controversy over master versus individual calendar are frequently merged with, and may even obscure, real scheduling problems. There are advantages and disadvantages to either assignment system, and a court is well advised to forget labels and design its own assignment policy in concert with other court goals. The issues involving allocation of judge time, the trade-off between judge utilization and participant convenience (overscheduling), case/event prioritization, backlog definition, and continuance policy all apply equally to individual as well as master assignment systems.

Data-support costs frequently center around the use of a computerized information system to support scheduling. A comprehensive scheduling system obviously requires a great deal of accurate information but also offers substantial benefits to court administration. With urban judgeships costing taxpayers $500,000 annually, increases in productivity may justify added court operating costs. A cost-benefit analysis should establish a reasonable range for data-support costs.

Quantifiable performance measures for the scheduling process and for the court as a whole are needed to monitor effectiveness and evaluate productivity. Absent relevant

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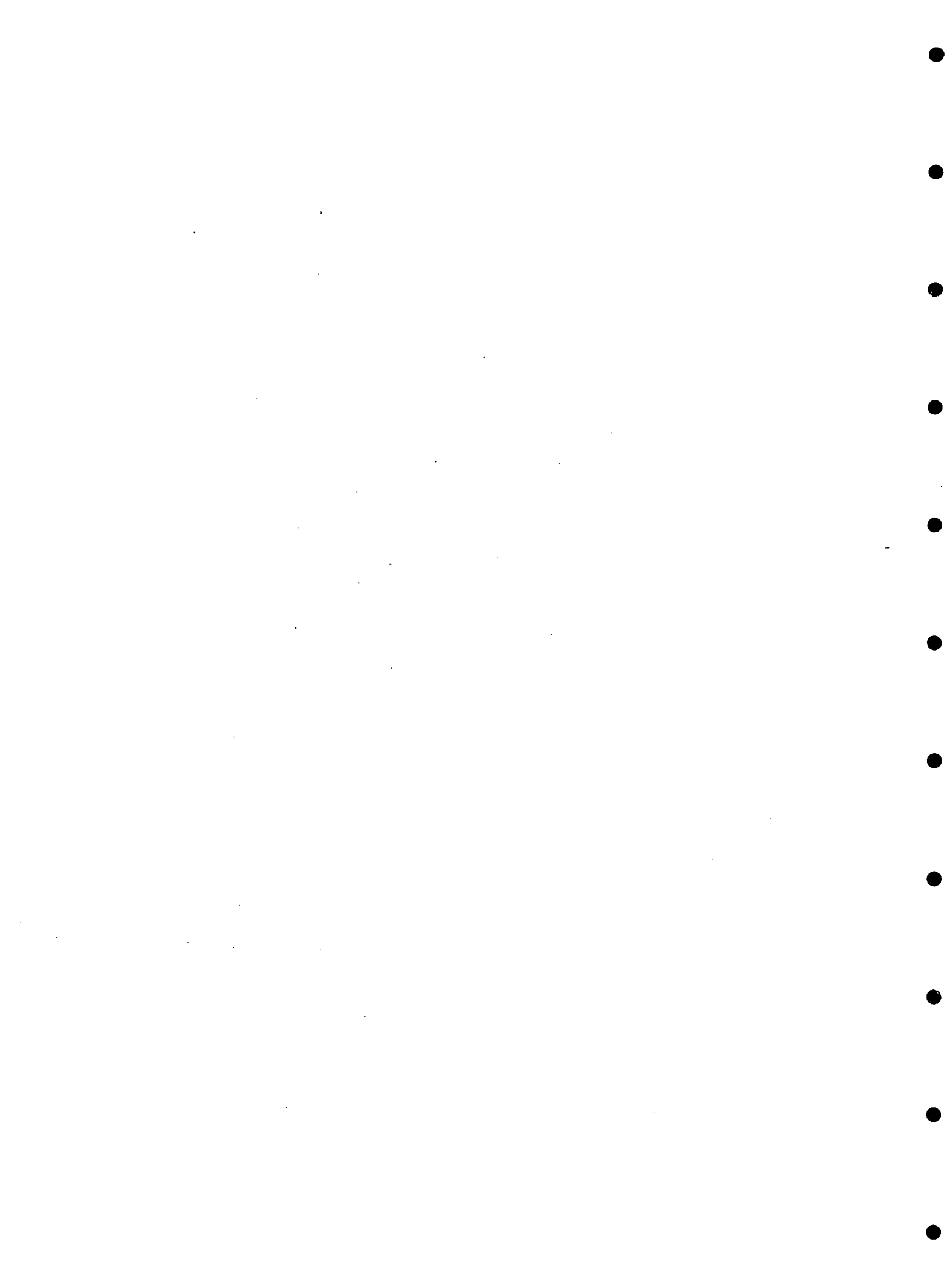
feedback, the court and scheduling must operate in a vacuum, aware administratively only of crises and complaints. On the other hand, information on work load, backlog, disposition rates, continuance rates, and calendar performance--when combined with court-set objectives--can provide the substance for positive management of court resources.

An evaluation mechanism provides feedback to the court on its performance by comparing results to goals. Measuring accomplishment means establishing quantifiable performance measures, previously mentioned, which accurately reflect court policy concerns over performance. The axiom "what people measure governs performance" is especially applicable in the court environment where generally accepted performance measures are incomplete and perhaps misleading, such as those that appear in most court annual reports.

Another element of an evaluation mechanism--one that can be threatening--concerns the establishment of a performance standard. Standards need to be set which consider the court as a whole, with full realization of limited resources and the necessity for trading-off in one area to gain in another.

The final component of an evaluation mechanism is the data-collection system, required to capture performance-related information.

An example of the need for courts to establish performance measures and collect data to make informed policy decisions is again provided by the Wayne County Circuit Court, Civil Division,

and pertains to changes in the organization of the daily calendar. Up through March 1976, each judge's week was scheduled with four full days of trials, Fridays being reserved for pretrial motions and conferences. In April 1976, the schedules were changed so that each judge had five mornings for trials, with each afternoon reserved for motions. No clearly stated motivation or policy generated this scheduling change, which lasted for 26 weeks. At the end of that period, the schedule reverted to its original form because the judges felt that the new schedule "just wasn't working." Neither decision, the one to shift to a five half-day schedule, nor the one to return to the old schedule was made with the benefit of any extensive data analysis.

When data on the two 26-week periods were later collected and analyzed, it became clear that the five half-day trial schedule was much more efficient in achieving dispositions, in contrast to what the judges "felt" about its efficiency. Consider, for example, Exhibit III-5, which pertains to general activity for the court under two different scheduling systems. The new, Period 2 calendar somehow increased judicial productivity and consequently caused an increase in events, orders, and judgments per week, all of which made the court more efficient.

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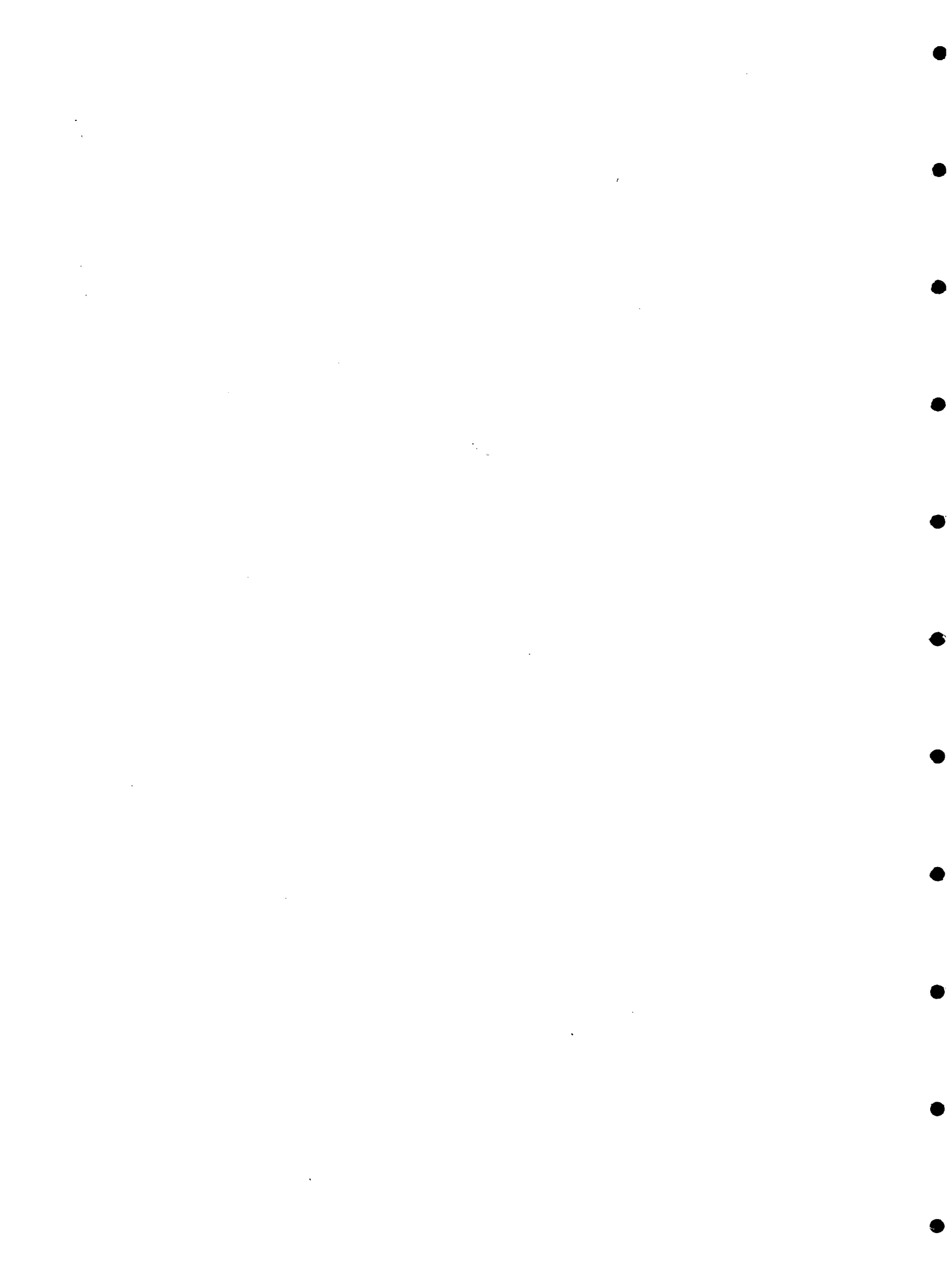
EXHIBIT III-5

GENERAL COURT ACTIVITY--PERIOD 1 VERSUS PERIOD 2

	Period 1 October '75 - March '76 (Four days trial, Friday - motions)		Period 2 April '76 - October '76 (Five 1/2 days trial, p.m. - Motions)	
Number of weeks	26		26	
Judge-days available	3708		3866	
Judge-days per week	142.61		148.69	
	per week	per judge-day	per week	per judge-day
Events on calendar	3433.9	24.08	579.12	24.07
Motions	233.9	1.64	215.50	1.45
Orders	996.4	6.99	1005.27	6.76
Judgments and so forth	997.0	6.99	1191.08	8.01
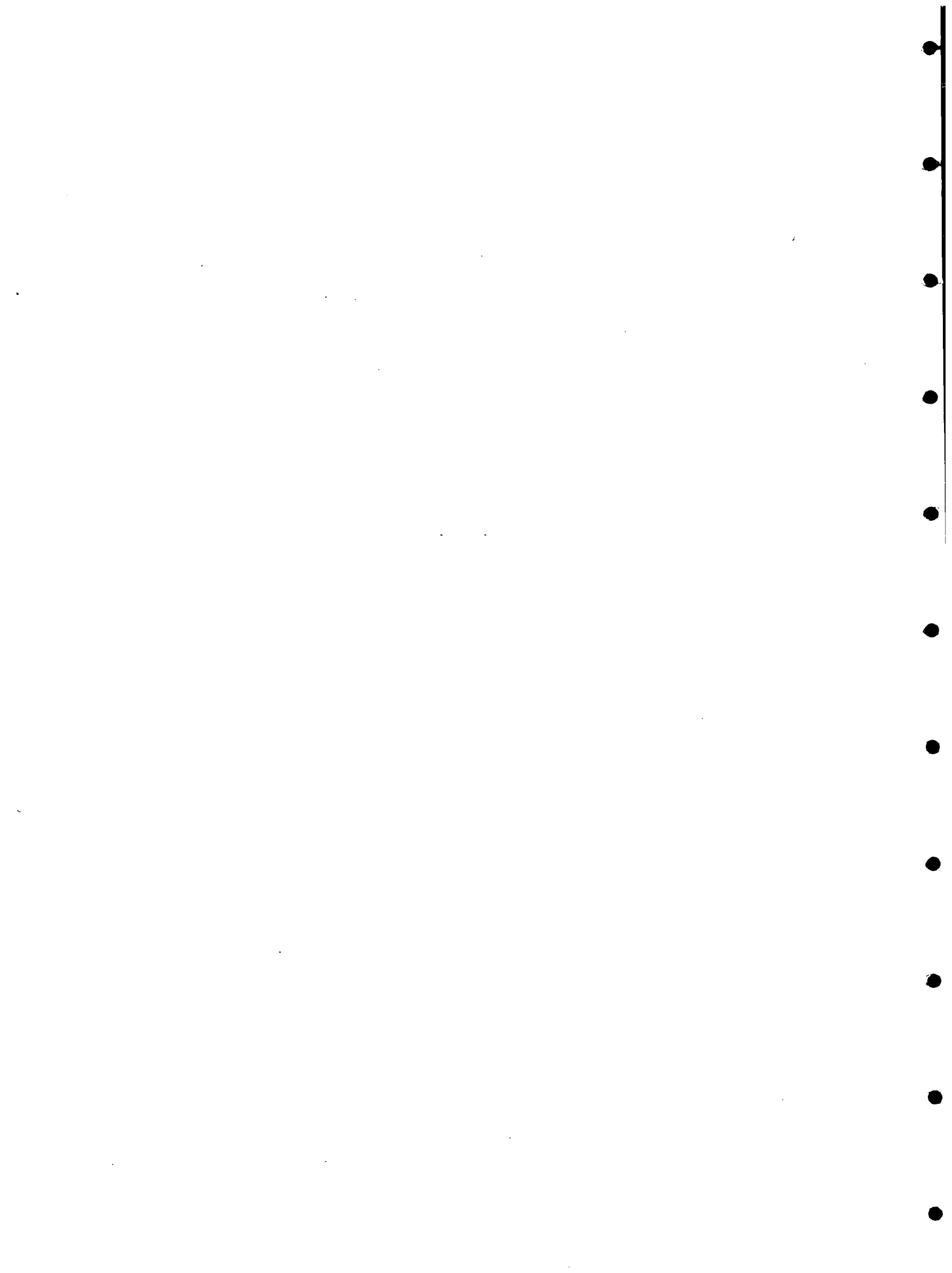
Even more interesting are the increases in trial activity under the Period 2 calendar (Exhibit III-6) despite the obvious difference between 4 trial days and 2 1/2 trial days (5 X 1/2 = 2 1/2) available per week. Clearly, the Period 2 scheduling system had its greatest effects on inducing pretrial settlement and on increasing the number of both jury and nonjury trials completed, making the court more efficient. The increases per judge-day are slight, perhaps causing the judges to feel that the new calendar was not working because the daily impact was hardly noticeable. However, the cumulative effect of the slight individual increases was to make the court much more efficient regarding dispositions. If an increase in the overall disposition rate was one of the court's objectives, retention of the calendar used for Period 2 sho.'d have been considered.

Data collected about these two periods further suggest that case backlog was not as large as it seemed. The figures for nontrial dispositions of cases are significant here (Exhibit III-7). Certainly, the cases tabulated here are part of the court's case load, defined as the number of active cases, regardless of status or age, pending at a given time. However, the gross case load figure is probably an inadequate measure for a court-scheduling system. Of greater importance would be an accurate prediction about the actual work load generated by those active cases; that is, the amount of judge-time needed to dispose of that percentage of active cases likely to come
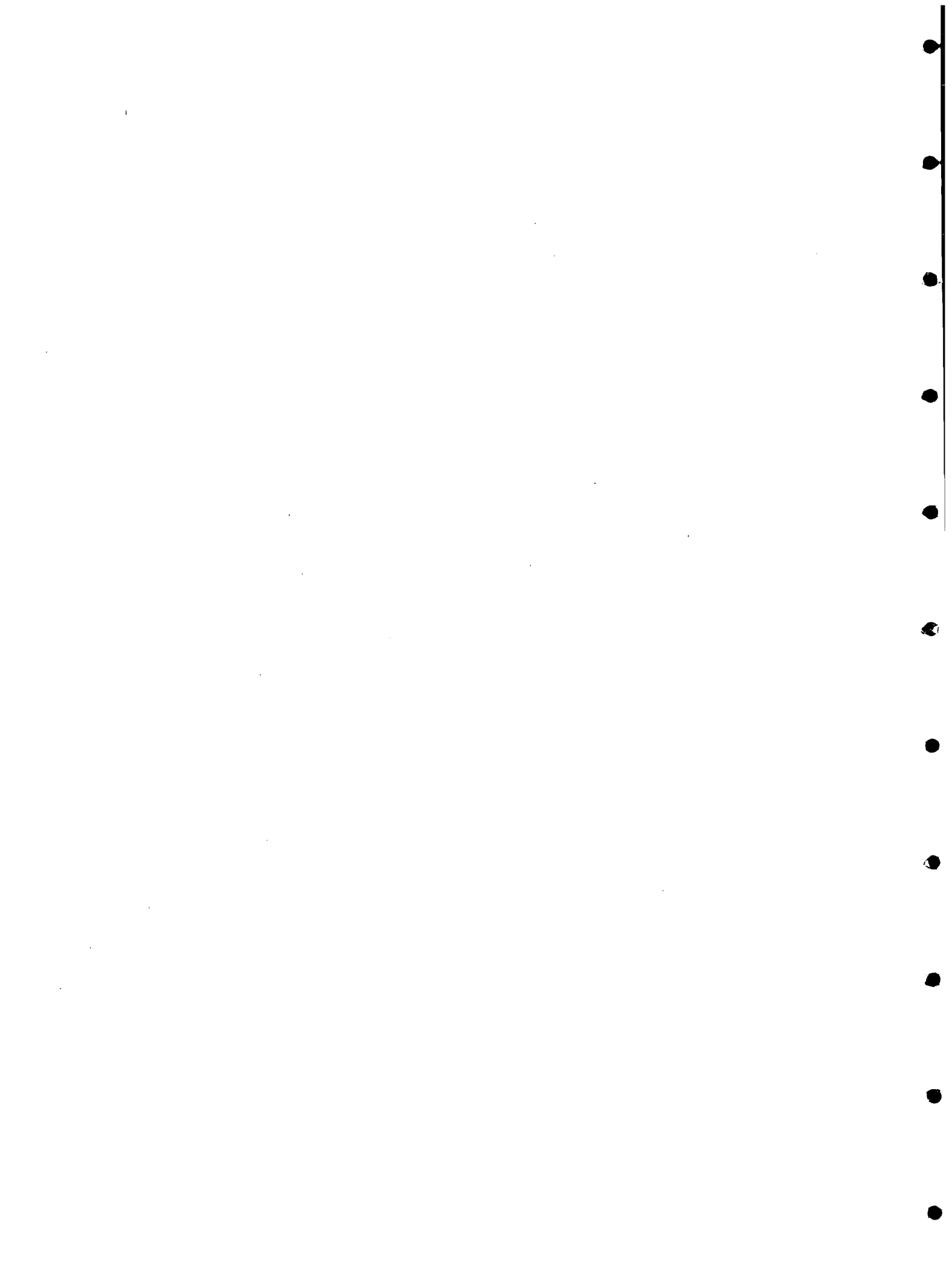
EXHIBIT III-6

TRIAL ACTIVITIES--PERIOD 1 VERSUS PERIOD 2

Trial Activity	Period 1		Period 2	
	per week	per judge-day	per week	per judge-day
Settled on date of assignment	64.50	.45	98.19	.66
Adjournment (continuance)	139.19	.98	157.73	1.06
Trials started	29.58	.21	38.85	.26
Jury-trials completed	12.94	.09	17.27	.12
Nonjury trials completed	14.73	.10	16.04	.11
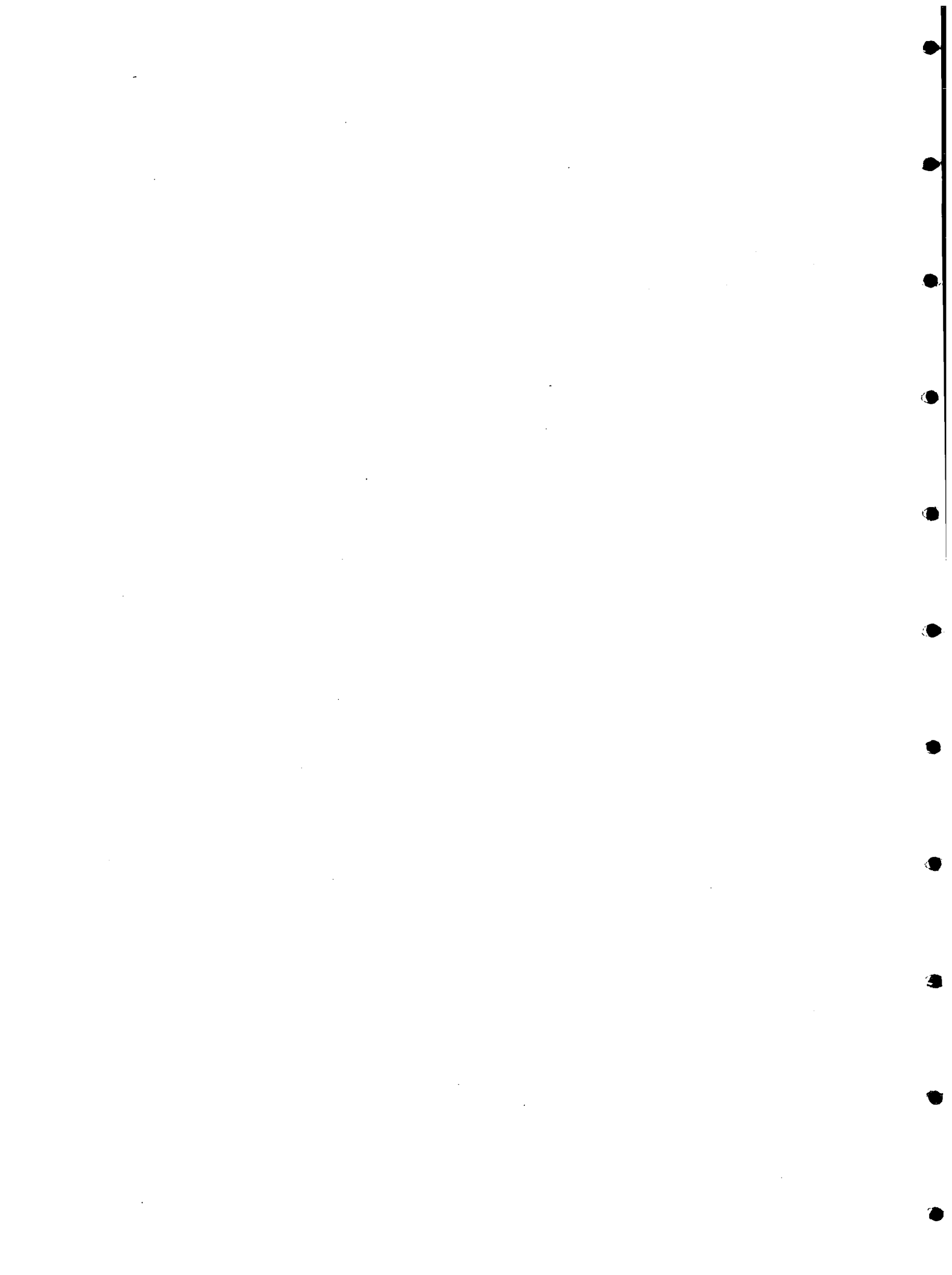
EXHIBIT III-7

NONTRIAL DISPOSITIONS--PERIOD 1 VERSUS PERIOD 2

Nontrial Dispositions	Period 1		Period 2	
	per week	per judge-day	per week	per judge-day
No progress	281.00	1.97	221.58	1.49
Default judgments	208.19	1.46	224.50	1.51
Consent judgments	56.12	.39	59.96	.40
Other civil dispositions	141.50	.99	138.58	.93
Criminal dispositions	50.57	.35	49.85	.34
Remanded cases	34.59	.24	58.77	.40
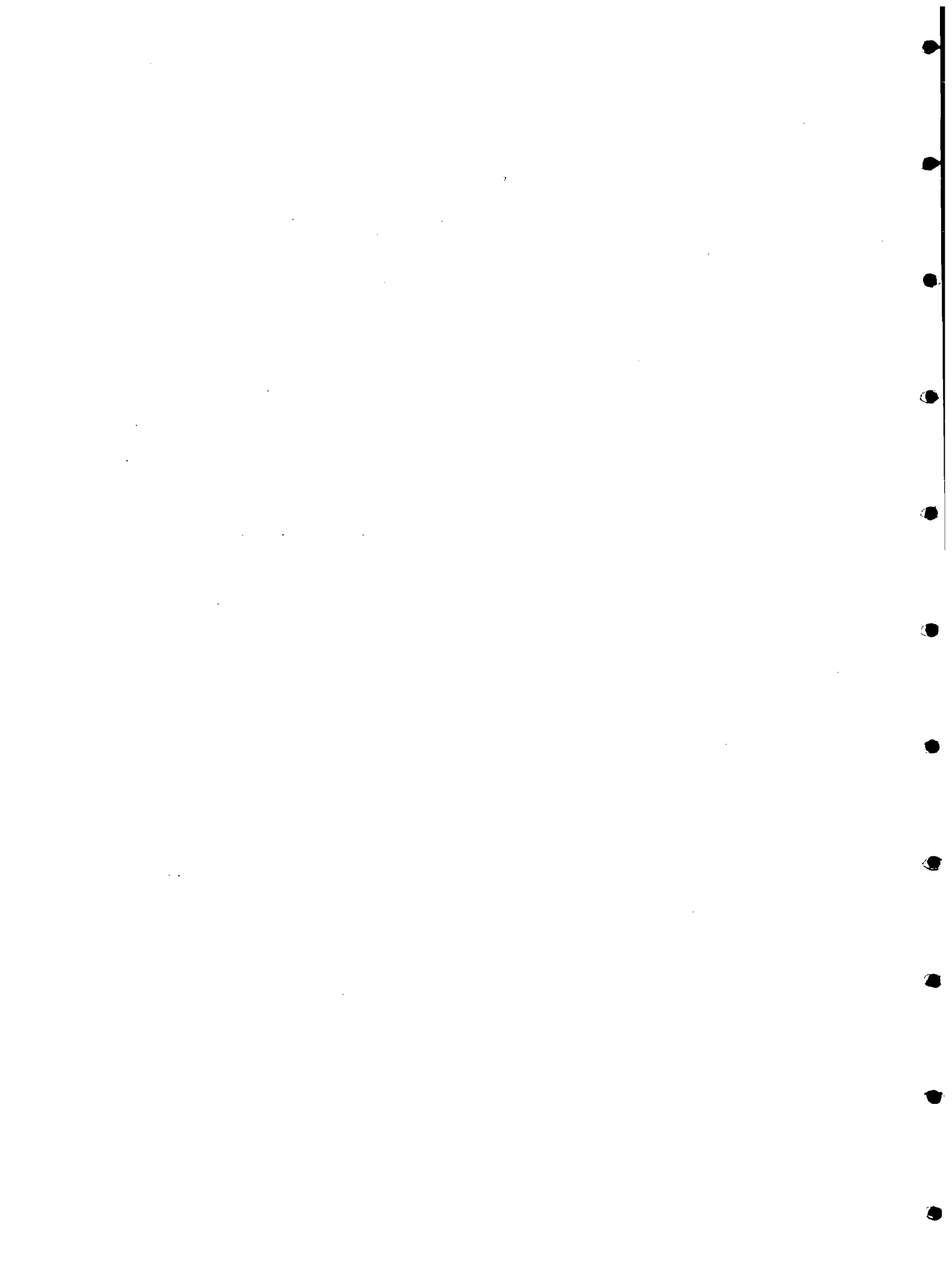
before a judge. Though frequently listed as a part of "backlog," cases settled either before the date of trial and/or by nontrial procedures are not as significant in terms of work load as those requiring trial dispositions. Only with adequate data collection and analysis can a court accurately predict what its resource requirements will be.

What Role for the Judiciary?

Our system of dispute resolution calls for impartial judges, who do not interject themselves into the substance of litigation but instead leave the burden of "going forward" to the adversaries. Our habit of referring to a stream of cases passing through the impartial court seems contrary to assuming an aggressive managerial role that affects the flow of that stream. Nevertheless, responsibility for efficient administration of the court lies with its judges, who must give direction.

If judges do not articulate objectives and do not establish policies to implement objectives, then policies implicit in court procedures may not be those of the court; instead, such "policies" will be those of a scheduler, a clerk, or the trial bar, and may be inappropriate policies for the court system as a whole. Today's professional court administrator can provide the technical skills to manage the court, but the judges acting as the "corporate board of directors" must establish goals and policies and review performance.
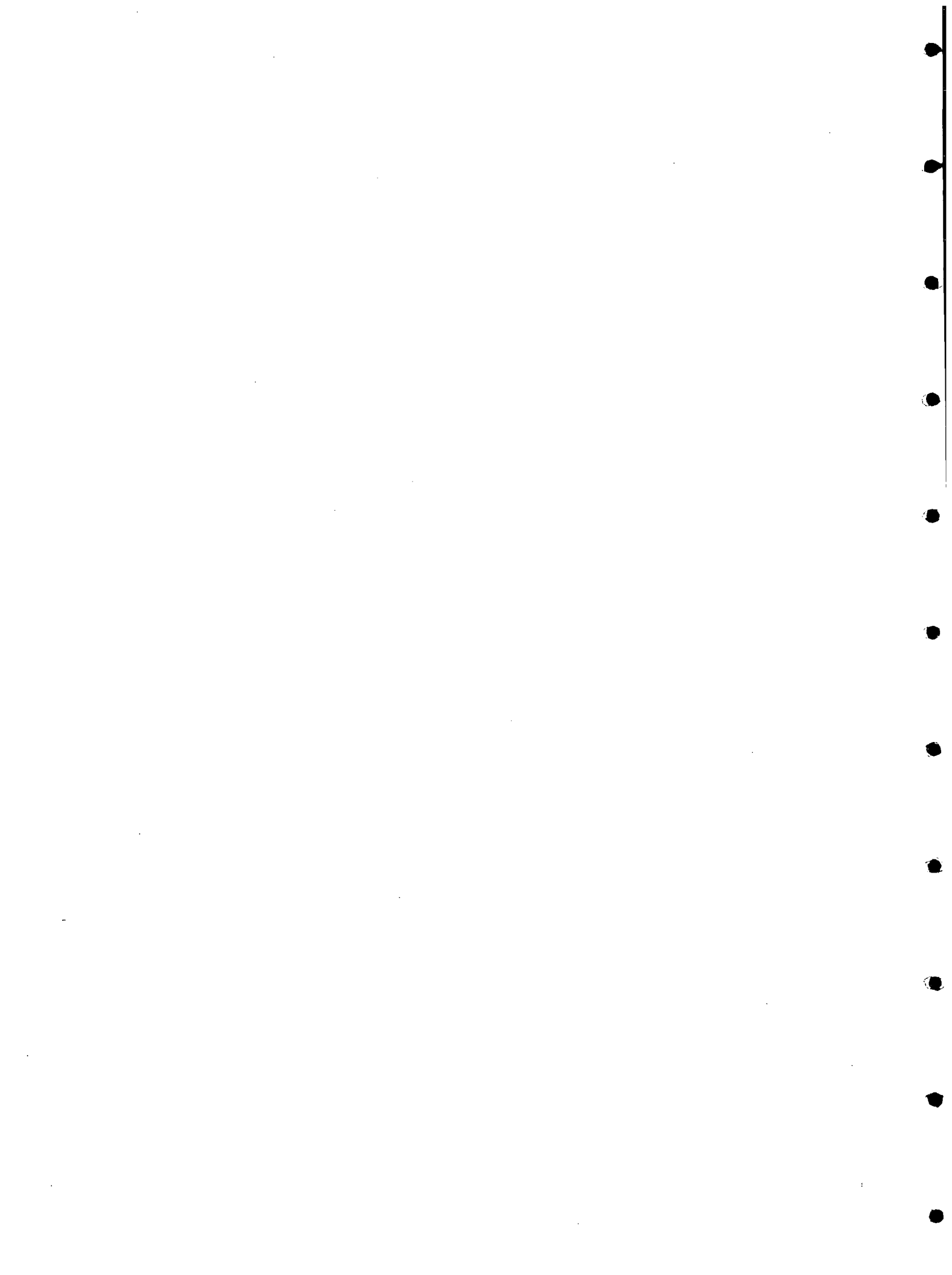
HOW TO CONDUCT A SYSTEMS ANALYSIS IN YOUR COURT

The past several decades have witnessed dramatic increases in litigation as the courts have become the primary forum for the resolution of conflicts among citizens. As case loads grow and resources remain limited, the task of court scheduling has become increasingly complex.

The underlying reasons for the added complexity are not uniquely attributable to growing case loads. Of greater concern to the scheduler is a number of other factors. First, objectives are not always clear. Exactly what is the court trying to accomplish through its scheduling process? Certain standard goals, such as speedy and fair trials, will always be listed as objectives toward which a court system should strive. However, others may be selectively emphasized according to the situation and the particular needs of a given court. One court may have a shortage of space, a second a shortage of judges, and a third an overworked trial bar. Each court would have to direct its scheduling efforts toward a different set of objectives. The specification of these objectives must be accomplished by the court, preferably by judges with the assistance of the court's administrative staff. These objectives must then be distilled into a set of operating rules and presented to the scheduler.
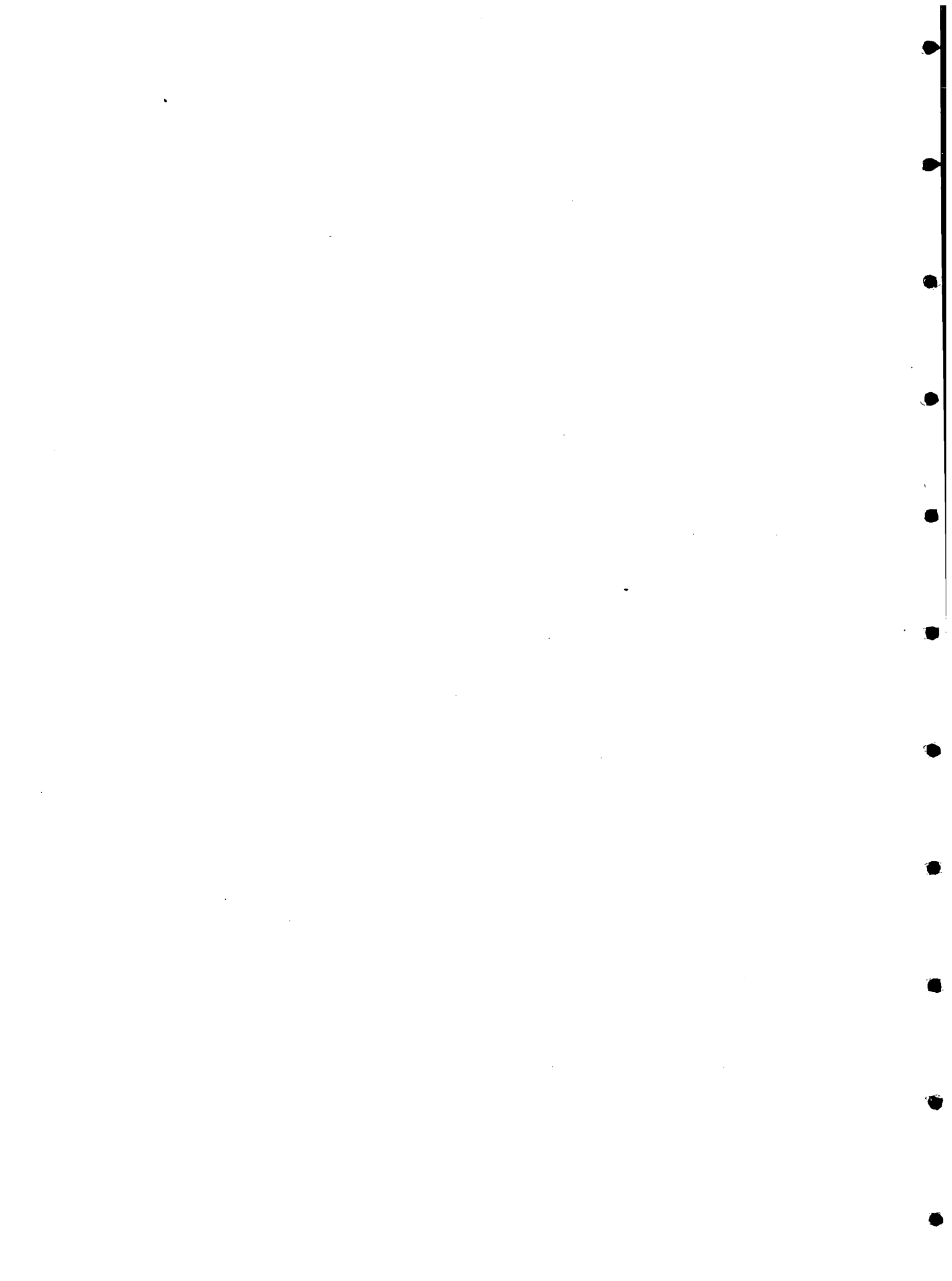
Often a court will find that within a given framework of objectives, some are in conflict with each other. That is, two objectives cannot be fully achieved simultaneously. For example, given a limitation on judicial resources, it may be impossible for a court to satisfy established time standards for the adjudication of both civil and criminal cases. Therefore, the court will have to establish priorities within its set of objectives and devise ways of balancing or making trade-offs between them.

Further complicating the process are the uncertainties inherent in scheduling. For example, will a scheduled trial actually take place or will there be a settlement, perhaps on the date of the trial? Much of the uncertainty is introduced as a result of the adversary nature of the litigation process. Practices viewed by lawyers as producing tactical or strategic advantages, such as last minute postponements, can wreak havoc with established court schedules. Such tactics should be controlled to the extent possible, but sufficient flexibility should be built into the scheduling process to accommodate uncertainties.

What is required is a set of decision rules (such as "schedule 20 criminal cases and 6 civil cases today" or "assign 4 judges to the criminal bench and 3 judges to the
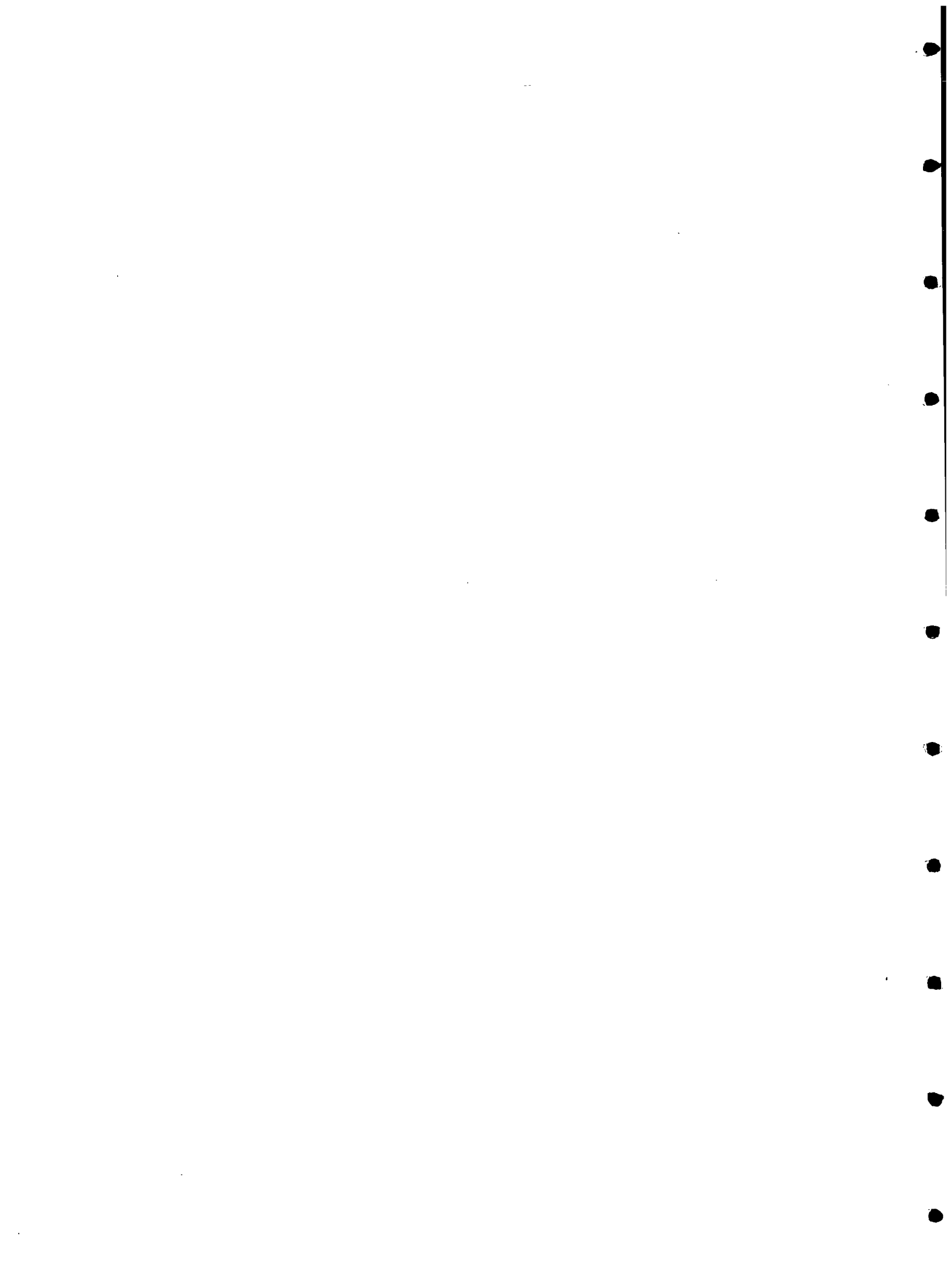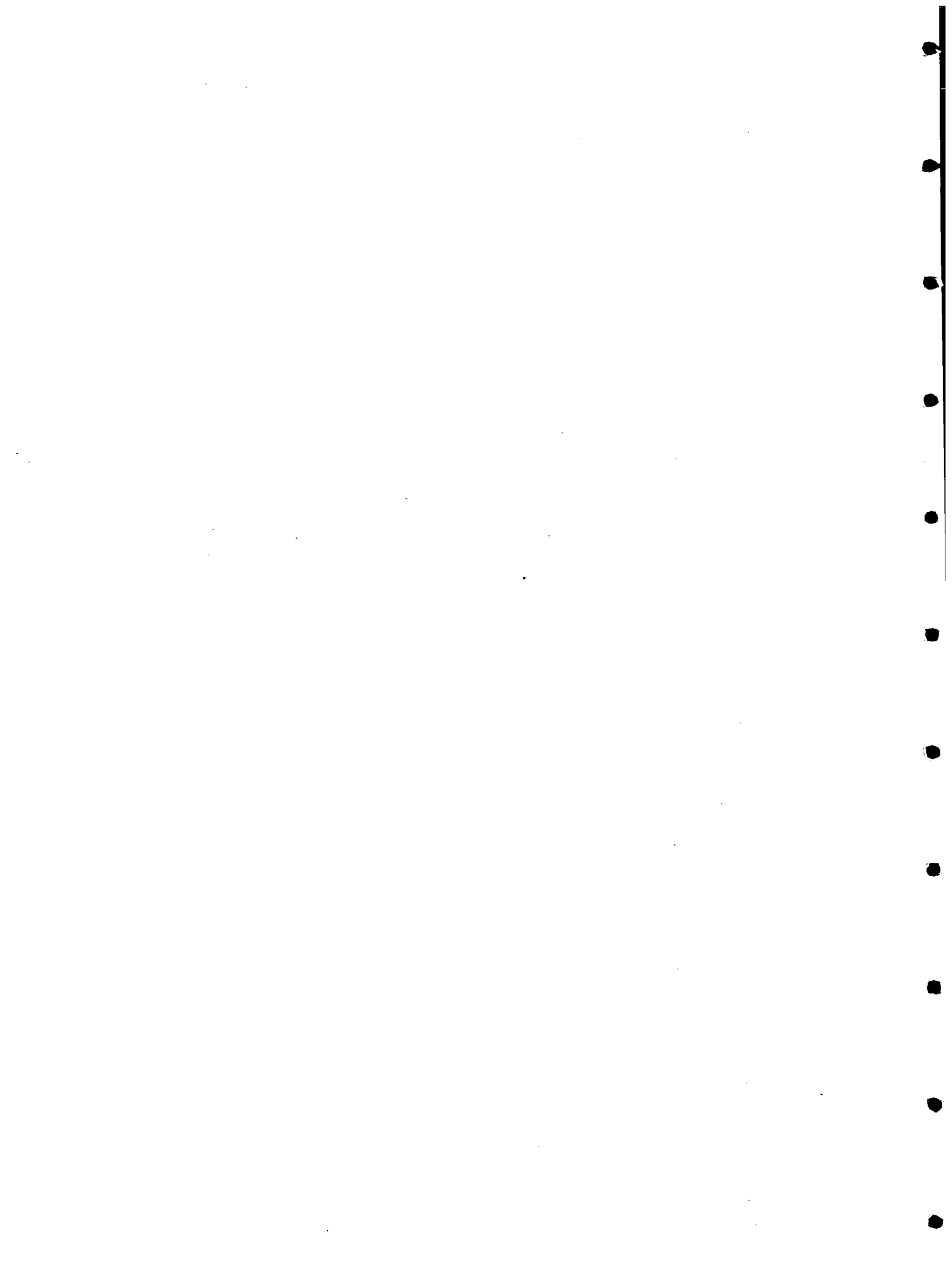
civil bench") which can be implemented by scheduling personnel.
The mechanism for implementing these decision rules has been
discussed in the Guide to Court Scheduling.* However, the
method for arriving at a reasonable set of decision rules re-
mains to be established and is the subject of this paper.

What is Systems Analysis?

Court scheduling is a complex process that needs to be
reduced to an ordered set of tasks to be successfully imple-
mented. The complexity arises because objectives are not
always clear. There may be numerous alternative approaches
for accomplishing an objective; uncertainties are abundant
and there is a shortage of real data on which policy decisions
can be based.

In the past, policy formation and planning required for
court scheduling have relied very heavily on the experience
and judgment of decision makers--in effect the "seat of the
pants" approach. Realization is slowly coming that for de-
cision makers to exercise their judgment effectively, a more
formal method is required to assist them in dealing with com-
plicated and interrelated issues. One important planning aid
available to decision makers is "systems analysis"--an
analytic approach to viewing complex problems.

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*Institute for Law and Social Research, Guide to Court Sched-
uling--A Framework for Civil and Criminal Courts (Washington:
1976). Its preparation was funded by the National Science
Foundation.

A useful definition of systems analysis is offered by Quade and Boucher.* It is a

> ...systematic approach to helping a decision-maker choose a course of action by investigating his full problem, searching out objectives and alternatives, comparing them using an appropriate framework in order to bring expert judgment and intuition to bear on the problem.

There are four principal elements or phases of systems analysis: formulation, data collection (research), analysis and interpretation, and evaluation. Formulation represents the conceptual phase during which the overall objectives are clarified, problems formulated and limited, and issues of concern reviewed. Especially in the public sector, objectives are not always clear. In the private sector, objectives such as "maximize profit" will often be sufficient. Public sector decisions must reflect the equity of a policy as well as its "efficiency." Multiple objectives of this sort require a decision on how much of one objective can be given up in order to obtain more of the other. It is the role of systems analysis to assist in the identification of the objectives and to provide insights relevant to the selection of appropriate policies for carrying out objectives.

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*E.S. Quade and W.I. Boucher, <u>Systems Analysis and Policy Planning: Application in Defense</u> (RAND Corporation, 1968).

The second or research phase involves the identification of data sources, the search for relationships in the data as well as the review of alternative courses of action which have some chance of solving a particular problem or of satisfying an objective. Analysis and interpretation require the utilization of various models to predict consequences of decisions and then to compare alternatives in terms of these consequences. This phase is somewhat judgmental as well, in that quantitative predictions obtained through modeling need to be supplemented by qualitative information and other subjective insights in order to derive a final set of conclusions.

The final stage of systems analysis is that of evaluation and monitoring. This step is included only rarely in most policy studies. Systems analysis should not end with implementation. Models used to evaluate and compare alternatives are only approximations of reality and provide only estimates of what would happen if a particular policy were implemented. Furthermore, the environment in which the decision was made may change subsequent to the analysis. It is critical, therefore, to set up a monitoring mechanism to ensure that anticipated results are being achieved.

Systems Analysis in the Courts

Systems analysis has been defined as a strategy for analysis rather than a single method or technique. Often it is more art than science, although quantitative analytic techniques are

used wherever possible. The ultimate purpose of the analysis is to facilitate "enlightened" decisions. That is, the experience and judgment of policymakers is supplemented by quantitative analysis.

It seems clear, though, that a system analysis is a necessary precursor to the implementation of a scheduling system of the sort described in the Guide to Court Scheduling. Areas of analysis may include the organizational structure of the court, the nature of the court's business (e.g., what kinds of cases are heard by the courts? how are they disposed? and what resources do they require?), and a review of existing or proposed operational (scheduling) decisions.

Specific problem areas which are related to the organization of the court scheduling system and thus may require systematic analysis include the following:

(a) Information flow. What type of information is required by judges, schedulers, court administrators, and case participants in order to successfully schedule cases? How can the flow of information be organized to ensure timeliness and accuracy?

(b) Case flow. How do cases flow through the court in terms of scheduling? Do various types of cases require special scheduling procedures? At what points can the court exert control over the scheduling process in order to monitor case flow and execute priorities?

(c) Allocation of judicial resources. How will judge time be allocated to hear cases of various types? What will be the effects of various allocations in terms of the court's stated objectives?

(d) Calendar organization and specification. What will be the actual organization of the court's calendar once an overall allocation has been selected? Should the calendar be specialized or integrated? What will be the case mix for judges? How many cases of each type should be scheduled each day? What time limits should be established?

(e) Monitoring responsibility. How will case flow be monitored and whose responsibility is it?

To illustrate our discussion of the key elements of systems analysis, we will use somewhat simplified examples from two courts--the Wayne County Circuit Court and the D.C. Superior Court. Both are courts of general jurisdiction. However, in Wayne County, we will focus primarily on civil case processing; in the D.C. Superior Court, we will devote our attentions to criminal case processing. Specifically, any data presented will reflect the time period October 1975 to September 1976 in Wayne County and January 1974 through December 1975 in the District of Columbia. For greater detail, interested readers can consult other sections of this report related to Wayne County or a separate research report related to the D.C. Superior Court.*

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*J. Hausner and M. Seidel, An Analysis of Case Processing in the District of Columbia Superior Court (INSLAW, forthcoming).
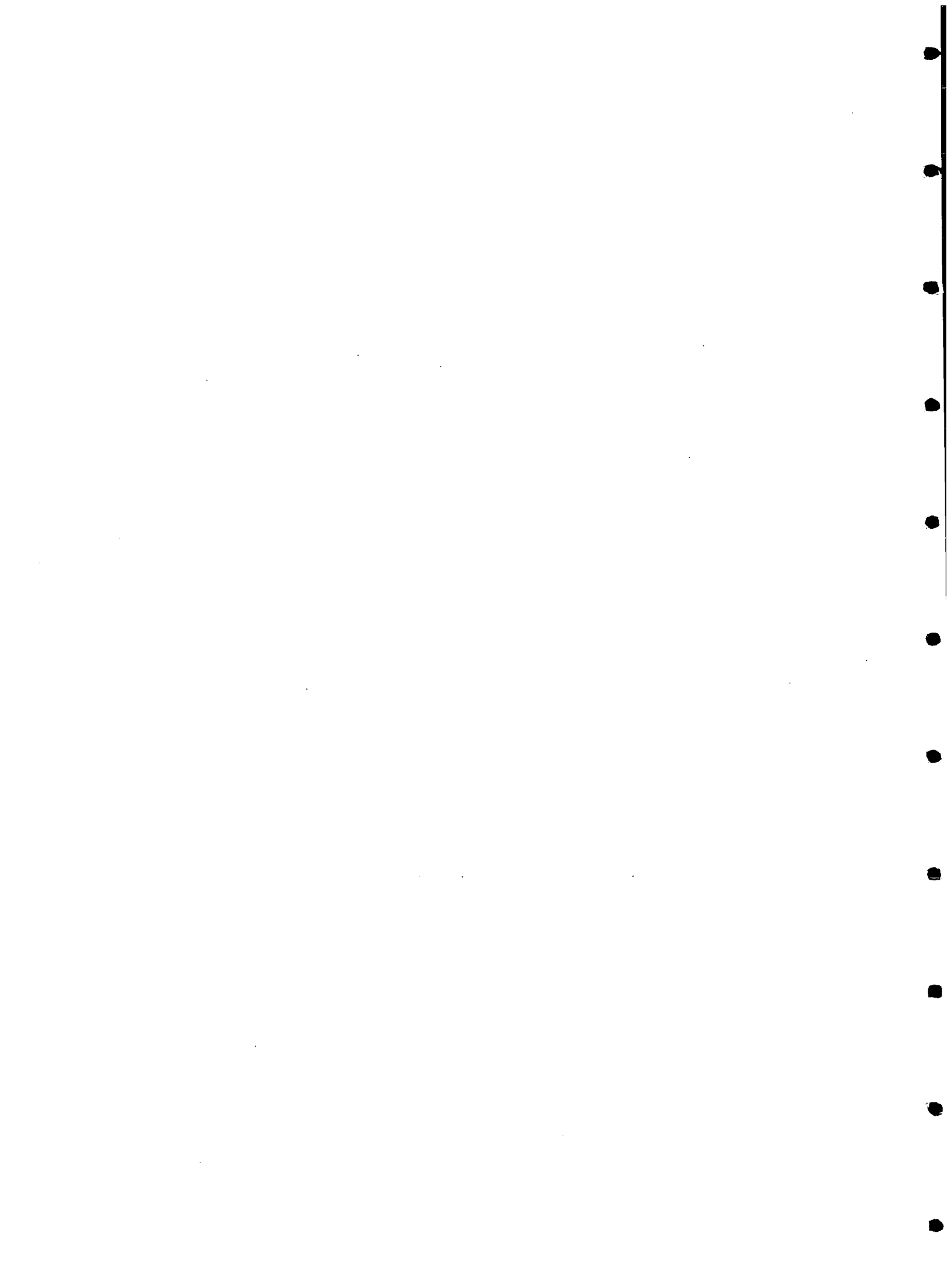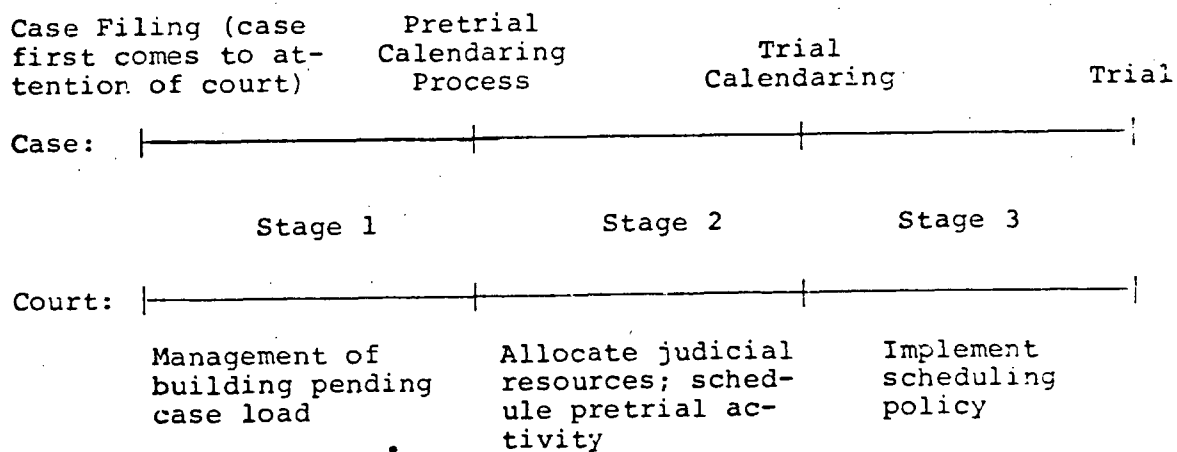
Formulation

As we noted earlier, formulation is the key step which presents a conceptual model of the system to be analyzed.

Developing a flow model

Begin with a general diagram of case flow and corresponding court activities. Through use of this general flow diagram, define stages in the life of a case. Each stage should represent an interval between scheduling activities.

As an example, consider the following diagram:

Case Filing (case first comes to attention of court)	Pretrial Calendaring Process		Trial Calendaring		Trial
Case:					
	Stage 1		Stage 2	Stage 3	
Court:					
	Management of building pending case load		Allocate judicial resources; schedule pretrial activity	Implement scheduling policy	

The diagram divides the life of a case into three simple stages--the time from filing to the beginning of the pretrial calendaring process, the interval between pretrial calendaring and trial calendaring, and the interval from trial calendaring to the trial or other disposition. Also noted on the diagram are the characteristics of the court activities during each stage.
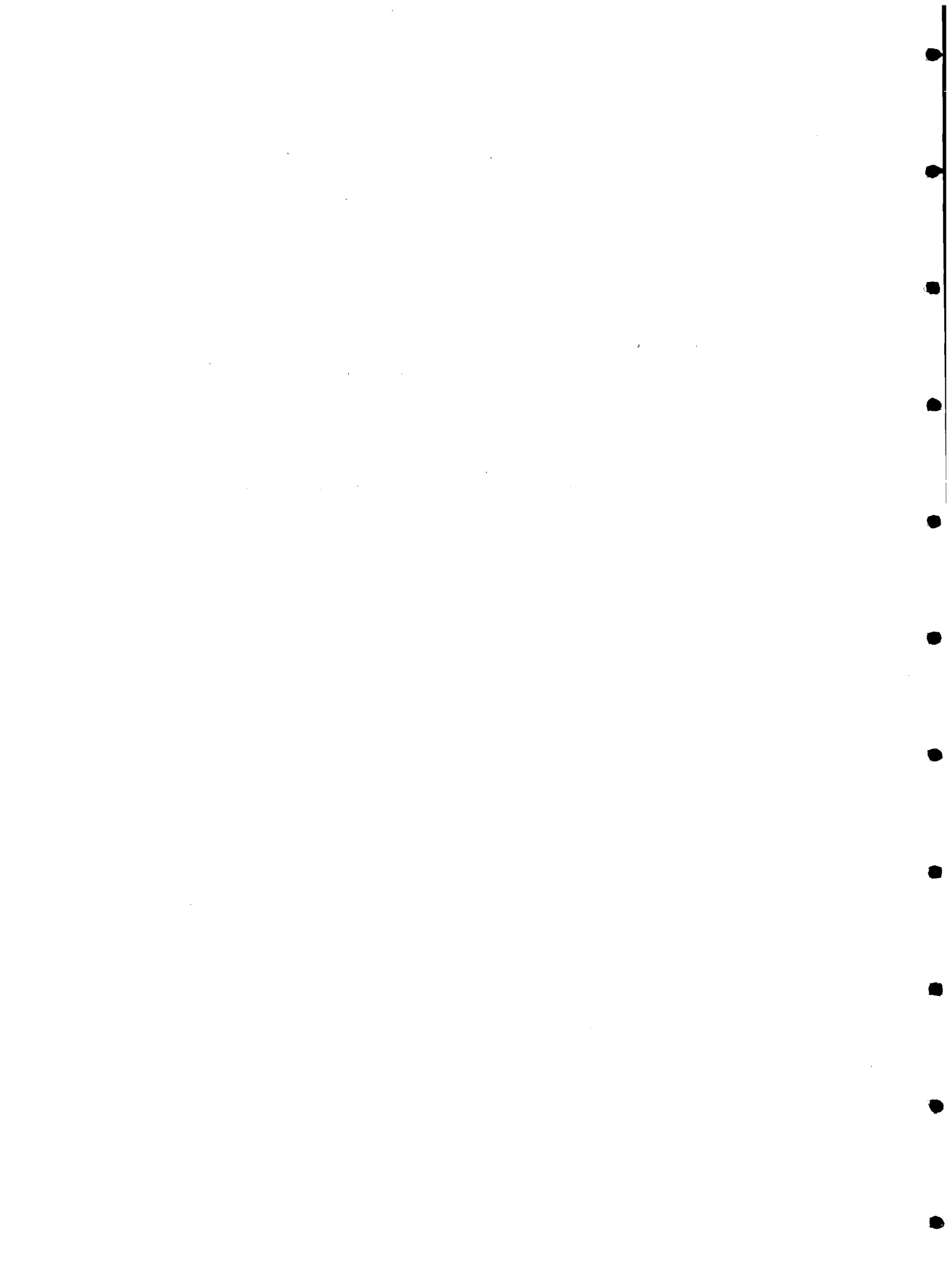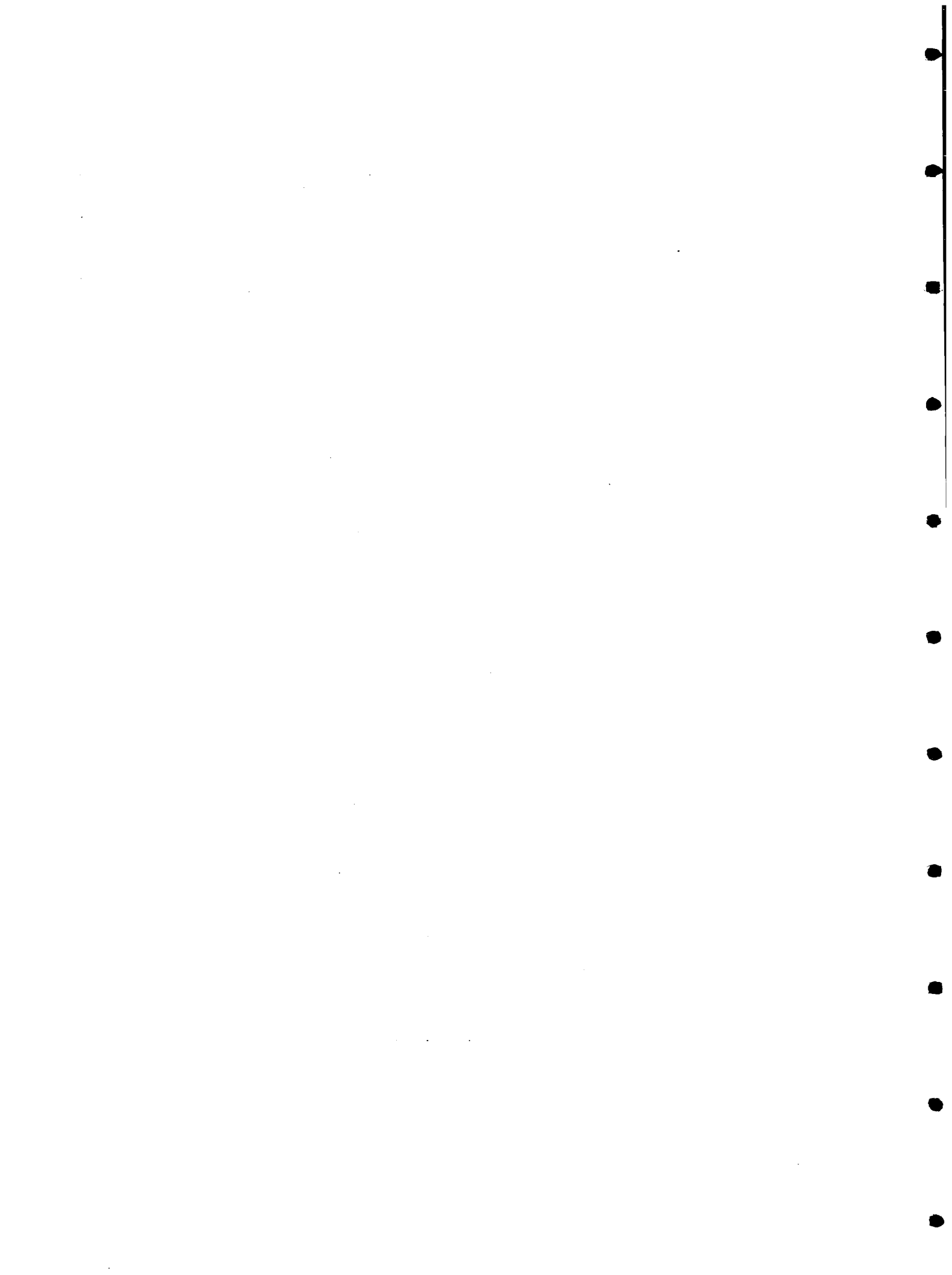
The next step is to identify points in the flow diagram at which the court can exercise some scheduling control. Each point requires some decision making or policy formulation by the court. For our simplified flow diagram, the following is an illustration of decision or control points which require policy direction:

Stage	Decision or Control Point
Stage 1	Case acceptance/rejection by court.
	Management of backlog, pending case load.
Stage 2	Allocation of judicial resources. (How many judges to assign or how judges apportion their time among various case types, case mix.)
Stage 3	Calendaring policy (how many cases to schedule, priorities).
	Continuance policy.
	Conflict control.

The final step is to identify case outcomes at each stage. There are a variety of outcomes possible at each stage. Continuing with our example:

Stage	Possible Outcomes	Comments
Stage 1	- Case accepted.	
	- Case rejected or remanded to lower court.	Judicial decision.
	- No progress judgment.	Administrative decision.
Stage 2	- Conclusion of pretrial activity; case proceeds to next stage.	
	- Case continued, adjourned, or otherwise delayed.	Granted by court administrator or judge.

Stage	Possible Outcomes	Comments
	- Case disposed without trial (settlement, plea, nolle, dismissal, etc.).	
Stage 3	- Trial conclusion.	
	- Case continued or adjourned.	Judge only.
	- Nontrial disposition.	

Once the general framework has been laid out, details can be added through available information. This framework will provide the necessary structure for reviewing existing scheduling operations as well as for providing the basis for improvement.

Filling in the framework with available information

As an example, when reviewing the processing of criminal cases in the D.C. Superior Court, we noted a dramatic difference in the manner in which filed felony and misdemeanor cases were handled. These differences manifested themselves primarily in the decision points for each type of case and the resulting outcomes.

Overall, the rates at which cases went to trial, or were pled or dismissed are remarkably similar for felonies and misdemeanors. However, the processing of felony cases is one of winnowing. Cases are subjected to careful scrutiny by both the court and prosecutor, and the vast majority of felony case dismissals occur prior to indictment, before those cases can
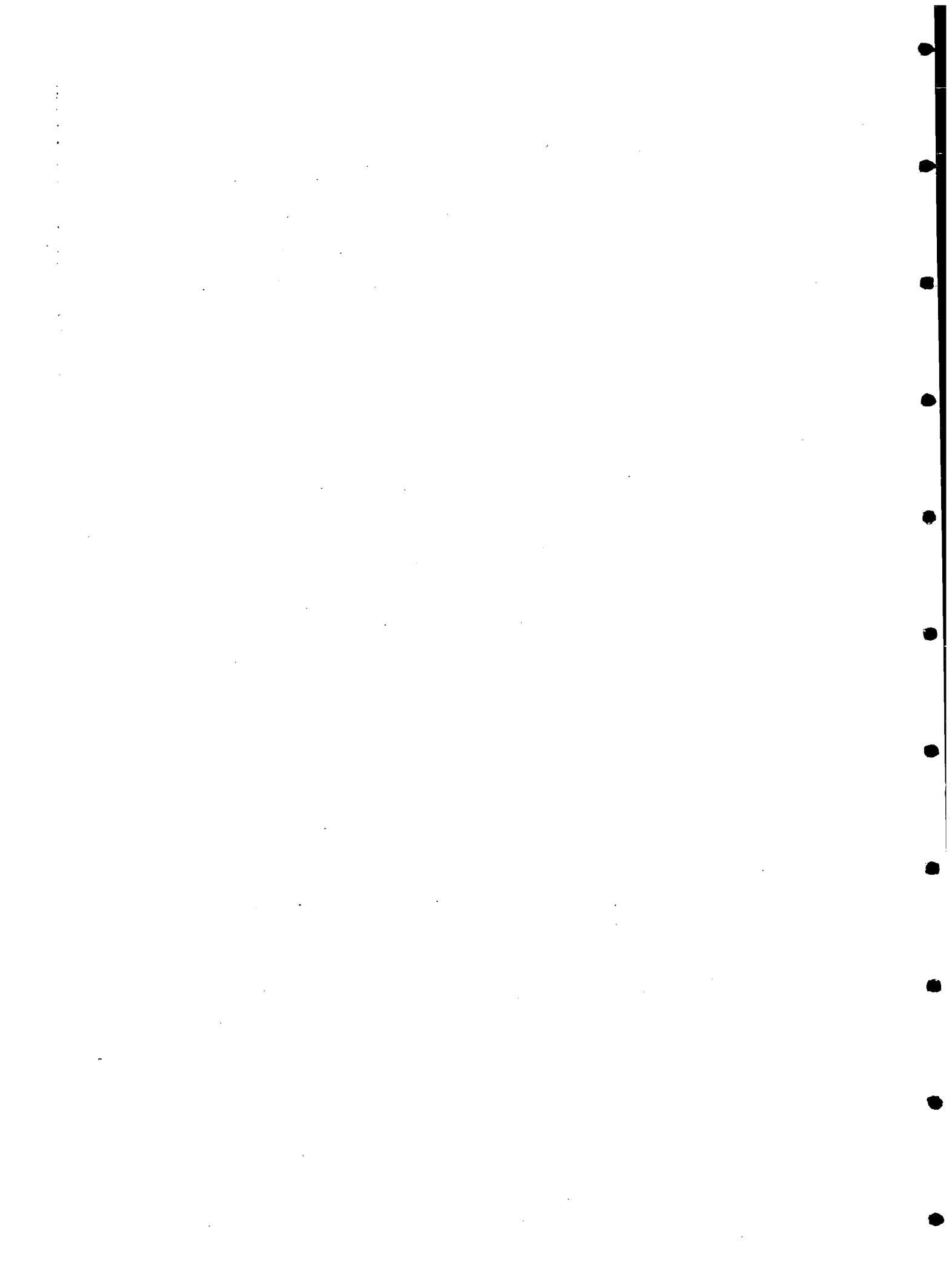
clog the dockets of individual judges. The cases that survive indictment and the preliminary hearing following arraignment have a very low probability of being dismissed. That, of course, adds stability to the calendar. Somewhat surprisingly, the subsequent impact of delay on felony conviction rates is limited. For example, felony cases going to trial within 60 days of indictment end in conviction 82 percent of the time, while those tried in excess of 240 days of indictment end in conviction 75 percent of the time.

In contrast, filed misdemeanors are not subject to the same kind of initial review at an interim stage but are, in fact, placed directly on the trial calendar on the date of initial court appearance. Weak cases, or other filed cases which are likely to be dismissed, are not sifted out until the scheduled trial date. The result is a misdemeanor trial calendar that is highly uncertain and unstable, with a very high proportion of cases postponed.

For example, by December 1975, more than two-thirds of the misdemeanor trial calendar was being continued each day. Repeated court appearances were frequently required even for cases that were ultimately dismissed. Almost one-half of the misdemeanor cases that were ultimately dismissed required more than one court appearance--some as many as seven appearances. It would seem that the insertion of some sort of a decision point, either a monitoring procedure (phone call, letter) or a status hearing, would help stabilize the

misdemeanor calendar and partially alleviate the continuance problem.

In Wayne County, where the major portion of the court's case load is civil, an analogous situation exists. However, civil cases going to trial currently require approximately 48 months from filing to trial. There is usually a substantial period between the time of filing and the point at which any scheduling activity began. For general civil cases approximately 30 percent of the filed cases are dismissed for "no-progress," approximately 40 percent dismissed for other reasons (including settlement), over 10 percent remanded to lower courts, and only 20 percent reaching trial or judgment. It appears that the court can exercise a significant amount of control over its case load, now approaching about 60,000 cases, through the imposition of greater scheduling control. For example, remands could be considered much earlier in the life of a case. As it stands now, a case could be awaiting trial for four years only to be remanded to a lower court to begin the process anew. No-progress notices, connoting an absence of any activity in a case for a period of six months, are enforced only sporadically. (The notice is a means for the court to find out if a case is still active.) Timely generation of such notices would enable the court to better define the scope of its pending case load.

Principles of formulation

There are a few "rules of thumb" to remember in the formulation stage of a systems analysis.

. Formulation is a key element of systems analysis. Therefore, it is important to allow enough time for it and to seek the advice of those policymakers who will ultimately benefit from it.

. A "system" perspective should be maintained. No problem areas exist in a vacuum. Rather, a complex set of interrelationships may exist which have an impact on the area under study. At least an awareness of these interrelationships should be maintained.

. Objectivity in the early phase of a systems analysis is critical. Alternatives should not be excluded without analysis.

. Formulation is an iterative and interactive process. Key court personnel should be interviewed to assist in refining the model.
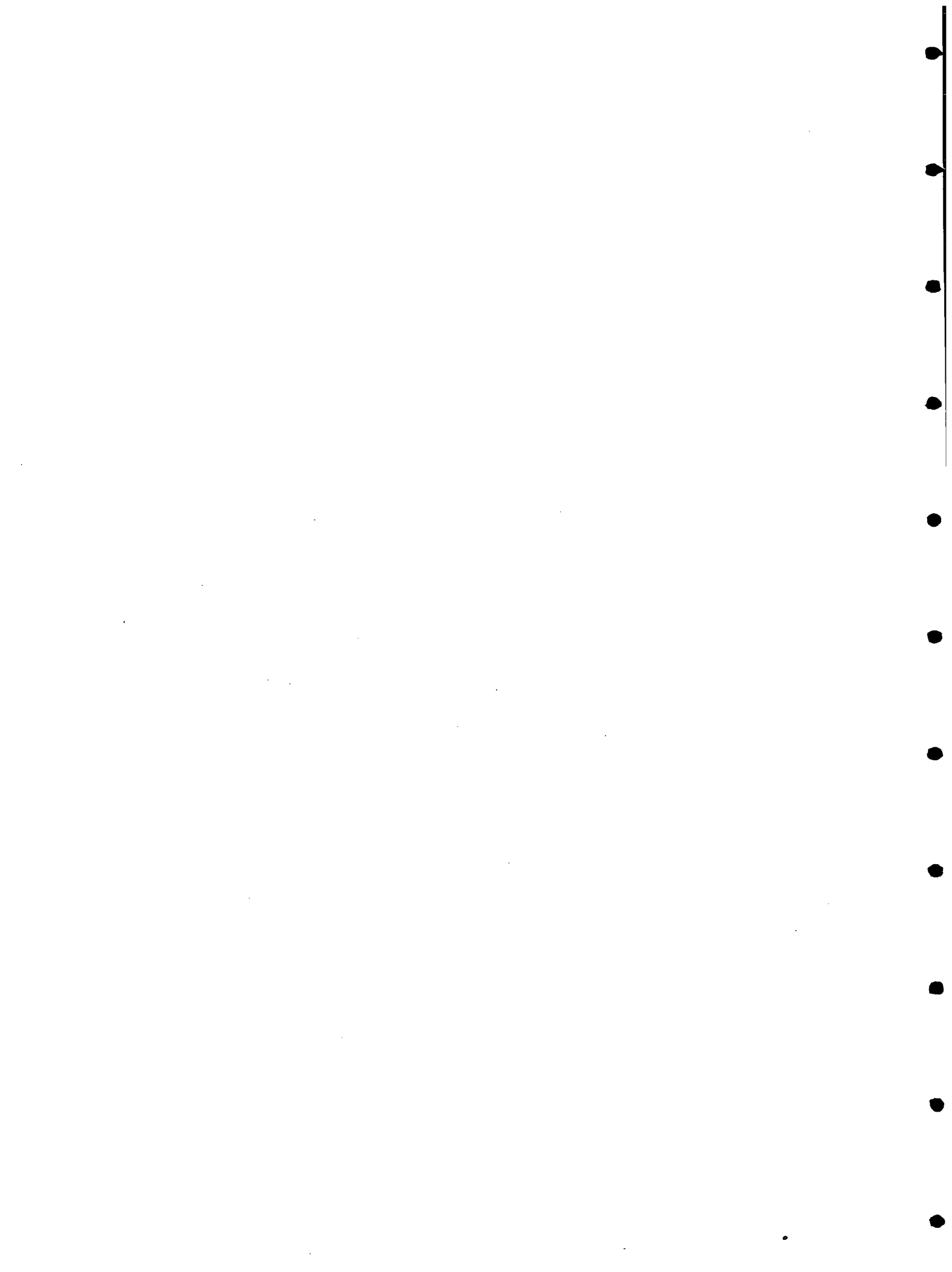
. Detail can be postponed until after the general conceptualization stage.

Data Collection

The formulation stage has resulted in a schematic of the scheduling process. The data-collection stage will complement the graphic description with a quantitative description.

Data sources

Almost by definition a systems analysis requires some amount of data. It is important for the analyst to consider carefully the kinds of data that will be required prior to

embarking on their collection. An automated case-tracking system would be an ideal source for data collection. Formal court records (such as docket books) or informal court records (such as annotated calendars) can often provide a good deal of information on scheduling. Sometimes a special, short-term, data-collection effort will be required.
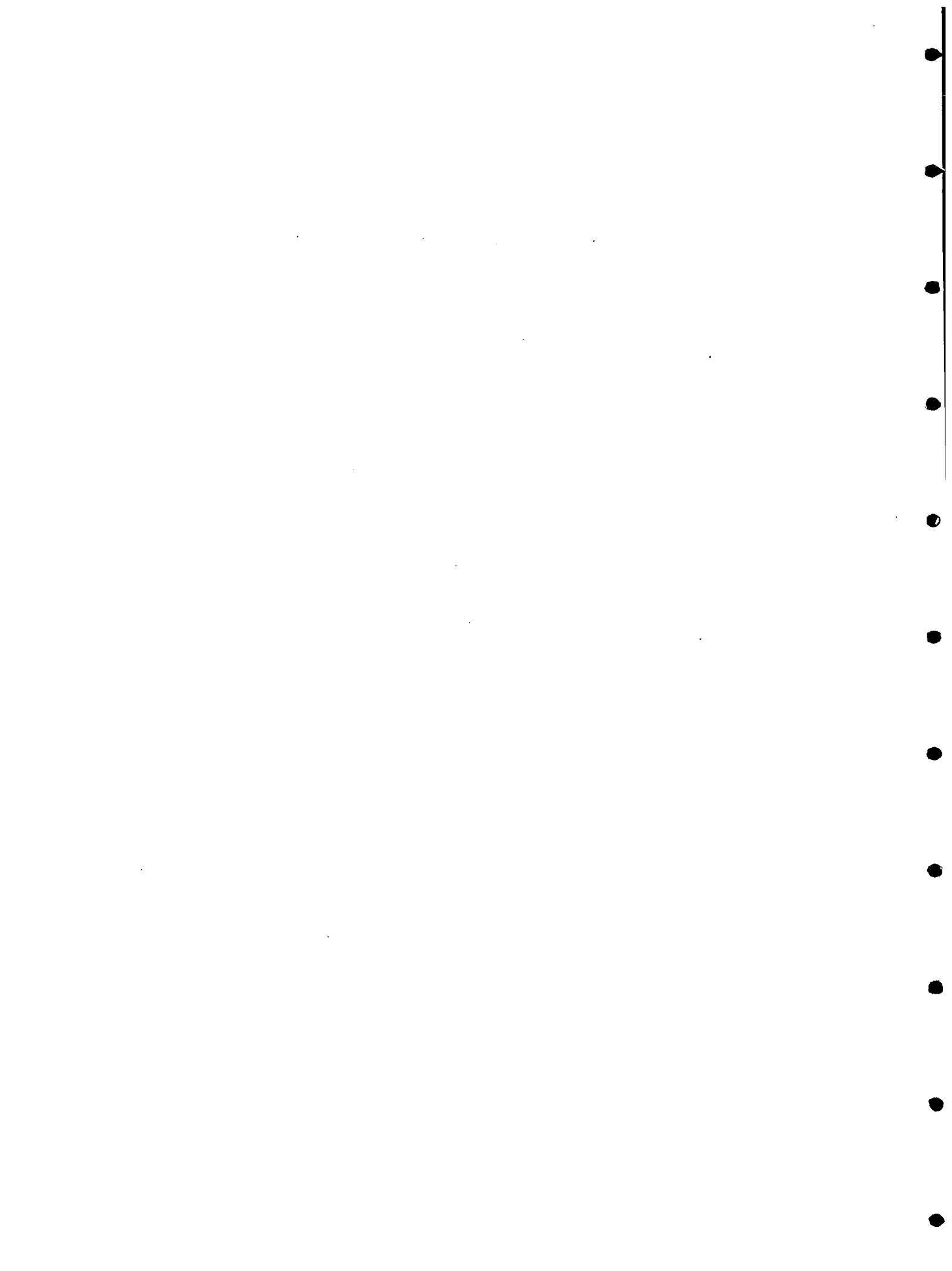
Quantitative data collection

Data will generally be required in several major areas. They include:

1. <u>Case load</u>. The number of cases filed with the court by type of case. However, this is only a raw and somewhat biased measure of a court's <u>work</u> load. It is, therefore, important to distinguish guish between case load and estimated actual work load--that is, defining the portion of the pending case load that will ultimately require court resources for disposition.

For example, in Wayne County the pending case load is roughly 60,000 cases. However, excluding these cases dismissed due to no progress, those cases remanded, and those ending in default judgments reduces the load substantially. In addition to giving a more accurate indication of pending work load, this procedure also provides a strong psychological boost to the judges who must dispose of all the pending cases. In the D.C. Superior Court, the two-year period between January 1974 and December 1975 witnessed a tripling of the pending felony case load (as shown in Exhibit IV-1). However, after simply excluding fugitives from the total, the level of increase, although still substantial, was not quite as alarming.

PENDING FELONY CASE LOAD: INDICTMENT TO DISPOSITION
(D.C. Superior Court)

EXHIBIT IV-1
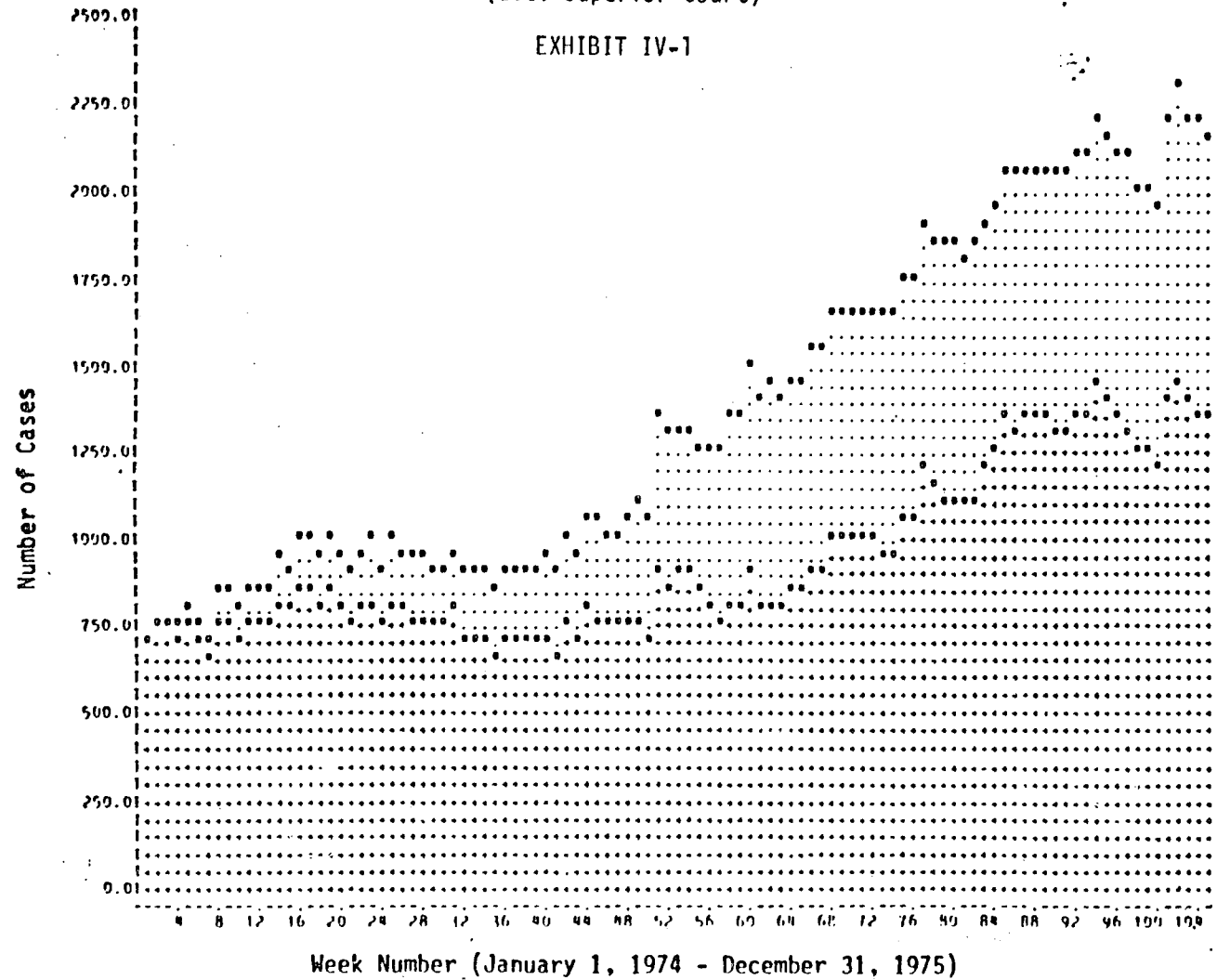
Week Number (January 1, 1974 - December 31, 1975)

Source: Derived from PROMIS data on cases screened in 1973, 1974, and 1975 and pending
or disposed in 1974-1975.

Note: Darkly shaded portion of the graph excludes fugitives.

IV-15
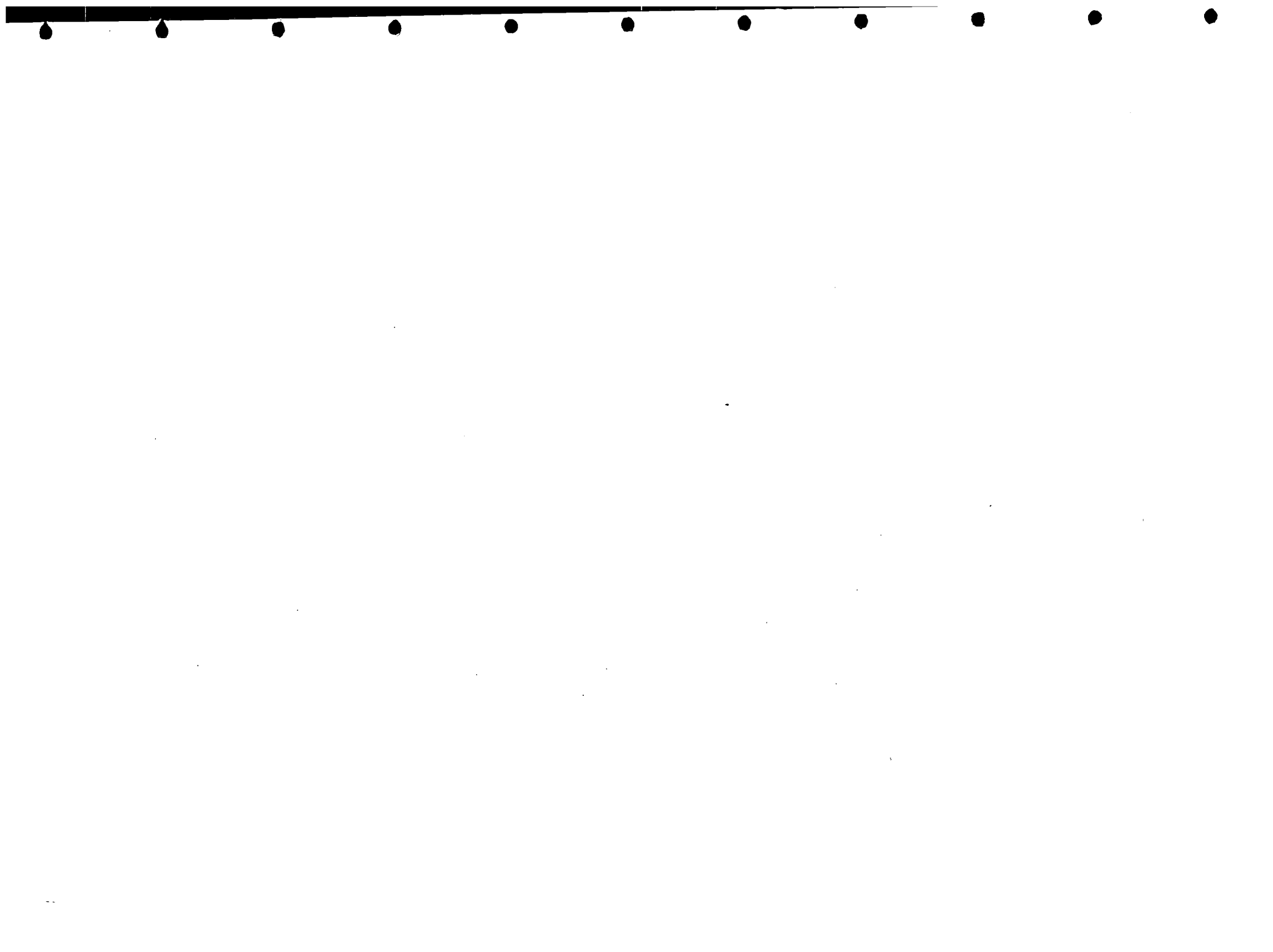
2. <u>Resource availability</u>. In most courts the availability of judicial resources is viewed as a limiting factor. In some courts it may be the defense bar, prosecutor, or even courtrooms. The question to be addressed is whether a cyclical pattern of resource availability may require adjustments to scheduling. For example, in the Los Angeles Superior Court an absence factor, or prediction of the percentage of judge time that will be unavailable due to absence, is computed based on past years' experience. In Los Angeles, since the absence rates range from 4 to 40 percent in a predictable pattern, these rates are utilized in determining court calendars.

3. <u>Scheduling policy</u>. These data relate to the performance of the existing scheduling system. For example, the number of trials scheduled, the number of trials actually taking place, the number of pretrial settlements, and continuance rates (at what stage and why).

Using a variety of sources for specific items of information may yield surprising results. In Wayne County, for example, the judges and the Assignment Clerk can grant continuances and each keeps a separate tally. The continuance rate does not appear to be high unless all sources are combined.

4. <u>Court process</u>. These data provide insights into the stages through which cases flow, their frequency, resource requirements, and dispositions.
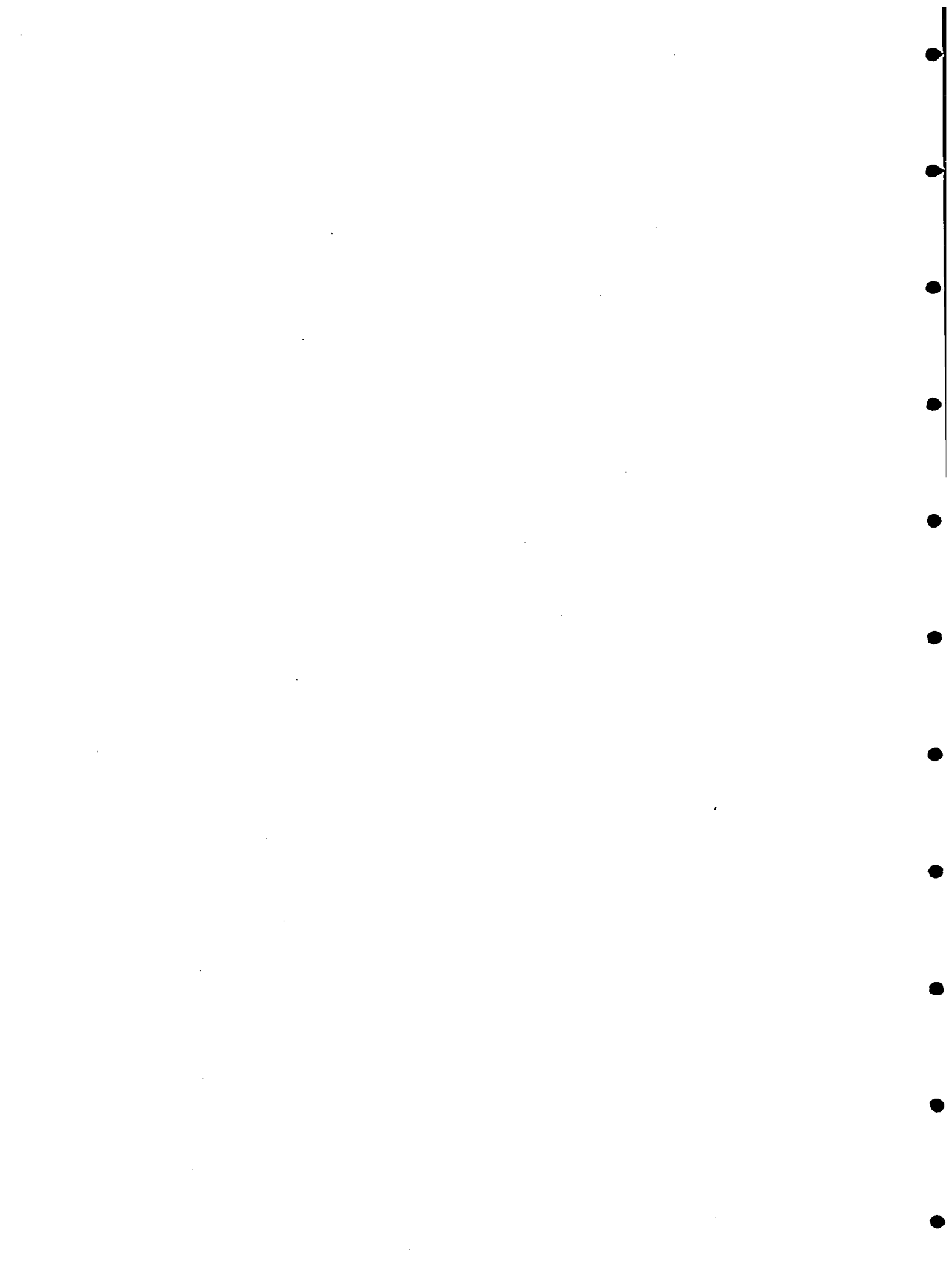
Examples

The data cited above can be used to conduct preliminary or exploratory analyses. Tabular or graphic displays can be developed to help discern trends or unusual patterns which may require scheduling attention. (If further analysis is necessary, more elegant approaches are available.) Two examples will be discussed below.

The Wayne County Circuit Court, Civil Division, provides an interesting laboratory for analysis. On April 4, 1976, the court switched from one calendaring system to another. Prior to April 4, 1976, the calendar was organized so that four full days (Monday through Thursday) of each week were devoted to trial activities, while the final day (Friday) was reserved for other activities, such as motions and pretrial conferences. After April 4, 1976, the calendar was reorganized to allow five half-days for trial (mornings) while the afternoons were reserved for other activities. INSLAW was able to collect data on court performance for the six months prior to (Period 1) and the six months following the change (Period 2) and draw some interesting comparisons.

Exhibit IV-2 offers summary data, by day of week, for the two time periods. We see that the average number of judges available on each day of the week is approximately equal throughout both periods. Looking at the average number of trials that were started each day, we note a slight increase on Mondays through Thursdays during Period 2 and, as expected,
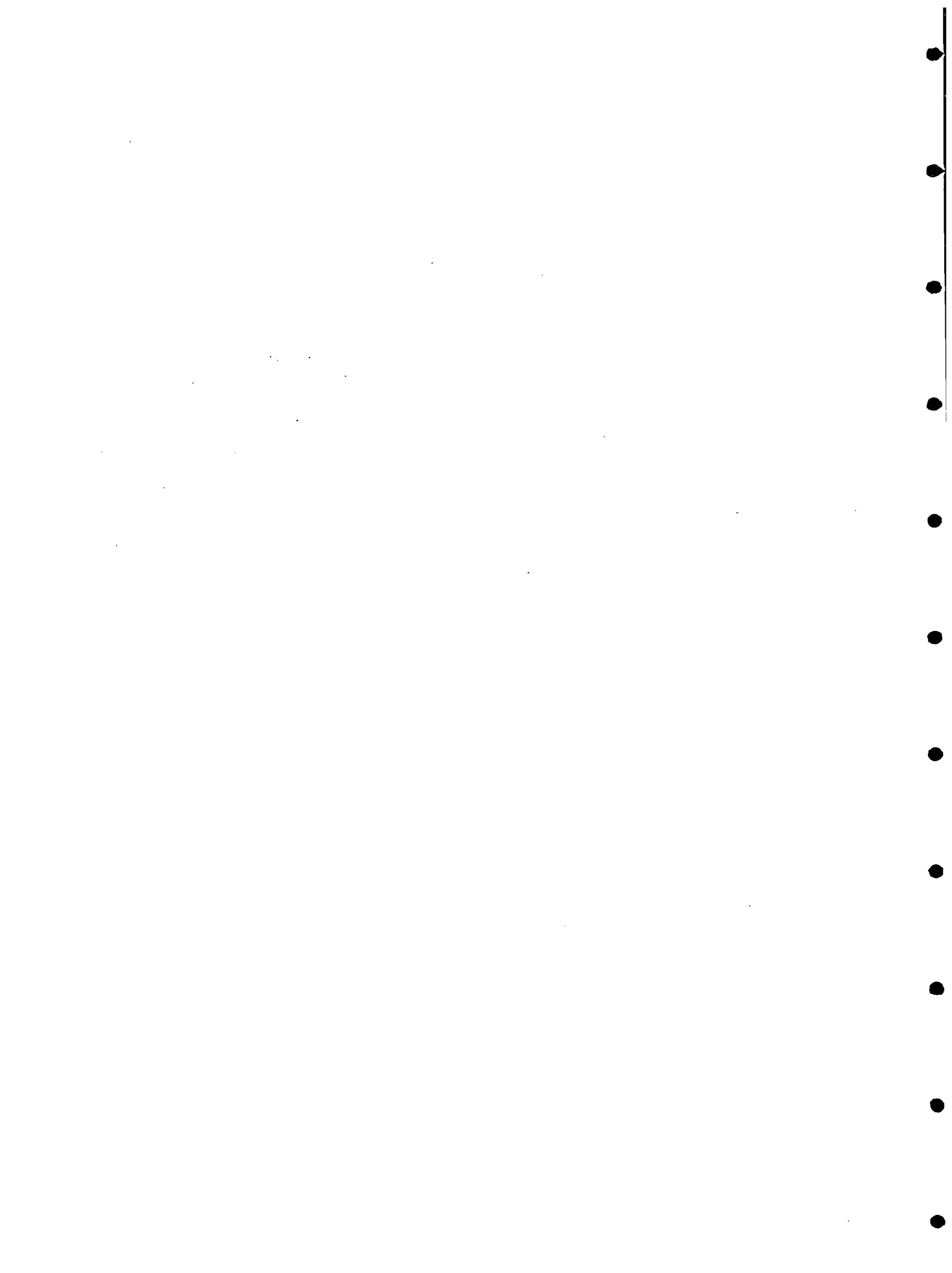
EXHIBIT IV-2

COMPARISON OF TWO SCHEDULING APPROACHES

	Period 1						Period 2				
	Mon 30.6	Tues 30.0	Wed 31.5	Thur 30.7	Fri 29.8		Mon 30.6	Tues 31.0	Wed 31.2	Thur 30.8	Fri 31.9
Judges Available	30.6	30.0	31.5	30.7	29.8		30.6	31.0	31.2	30.8	31.9
Trials Started	10.1	7.04	8.08	6.80	.3		10.3	8.65	8.04	8.36	5.5
Adjournments	25.9	26.5	26.4	25.2	45.6		26.9	35.6	23.7	31.8	47.3
Settlements	16.9	16.0	17.1	17.1	3.4		32.7	16.7	19.5	19.0	16.4
Trials Completed	6.0	7.1	7.4	8.1	1.5		6.05	6.95	6.99	7.22	7.66
Motions	11.2	13.4	15.1	17.7	190		12.5	15.0	23.7	16.0	157

IV-18
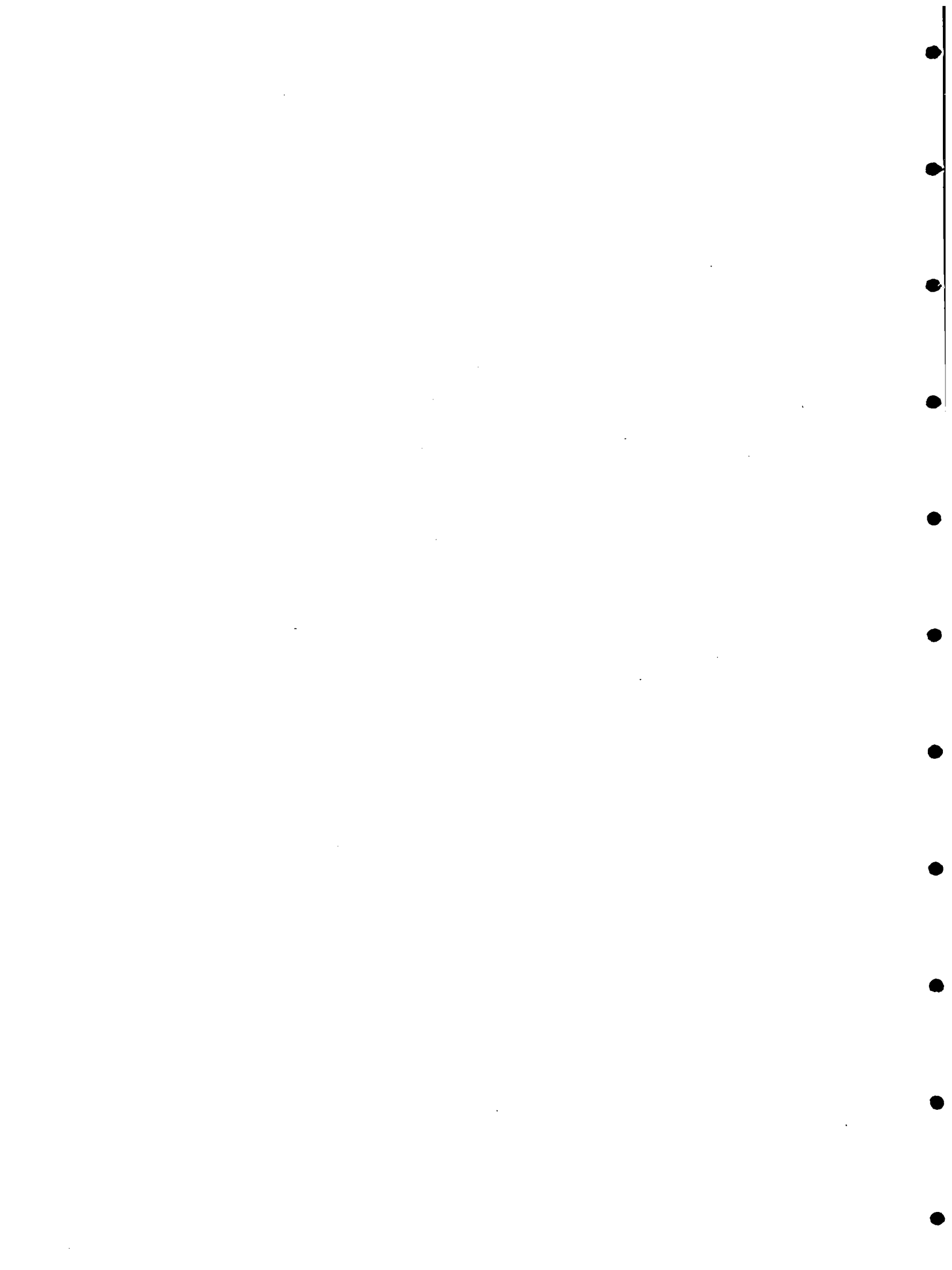
a significant increase on Fridays. The pattern of trial comple-
tions remains about the same. We can surmise that, although the
trial day was scheduled to end at one o'clock during Period 2,
some judges permitted trials to be completed later in the day.
Other activities, such as motions, remained at about the same
.level.

Adjournments, or postponements, tended to occur more fre-
quently during the second period. This is to be expected due to
the significantly shorter trial day. Curiously, there is a signi-
ficant increase in the rate of settlement during Period 2.

We are faced with a somewhat puzzling situation. Judges ap-
pear to have had less time available for trial activity during
Period 2, yet disposed of more trials. Simultaneously more cases
were settled, and other judicial activities (motions) did not
suffer.

Focusing on the question of increased settlement rates, we
look at Exhibit IV-3, which offers a time-series display of a num-
ber of settlements each week during the 12 months of observation.
Coincidental with the change in calendar organization (week 26),
we note a dramatic increase in the settlement rate. Somewhat
predictably, this rate of settlement dropped off as the novelty
of the new calendar disappeared. However, it did remain consid-
erably above the level of Period 1.

Discussion with court personnel in Wayne County did not
yield any possible explanations or insights regarding this
phenomenon. At this stage we have reached the limits of
exploratory analysis. We have observed an unusual pattern

IV-19
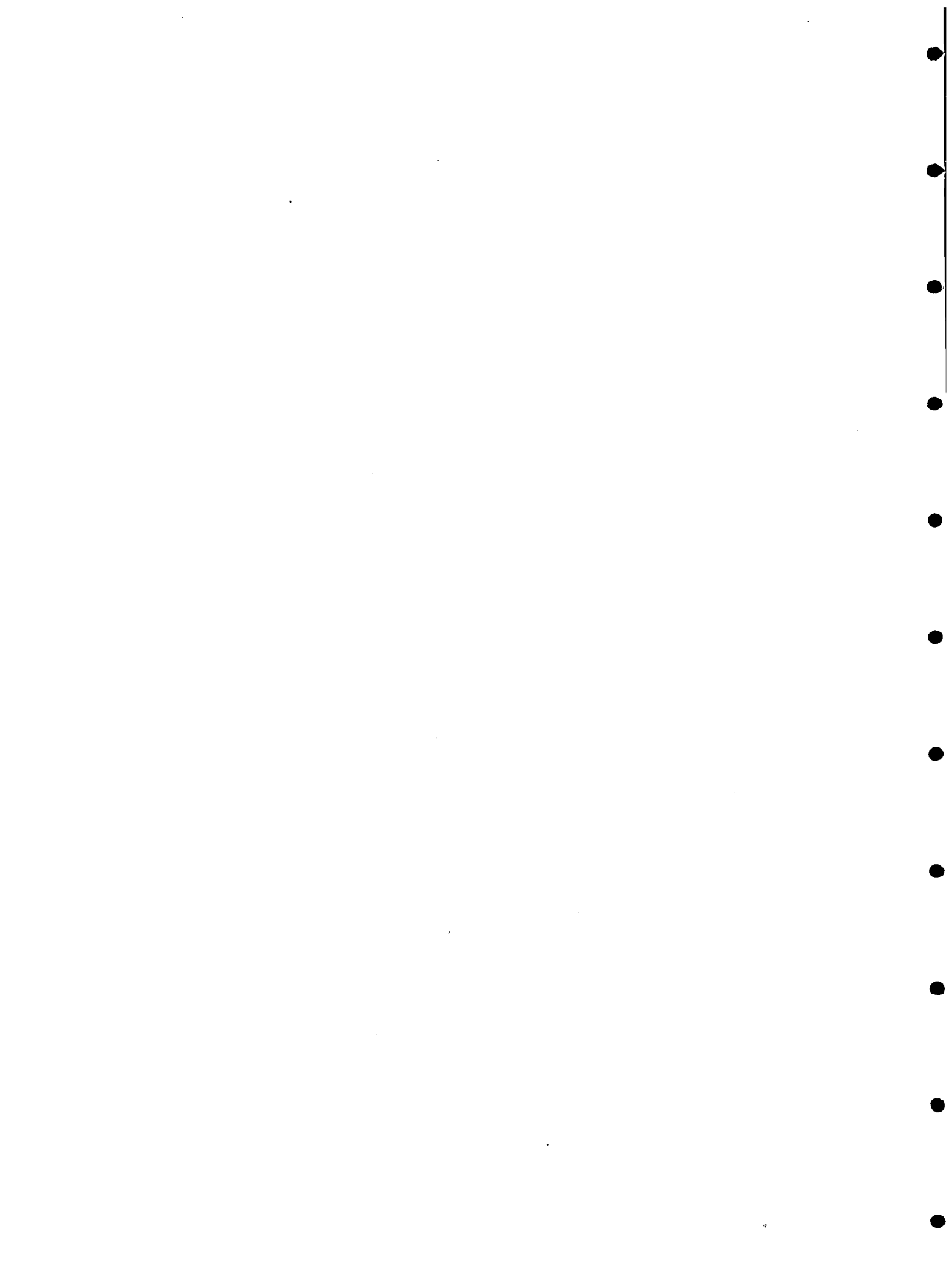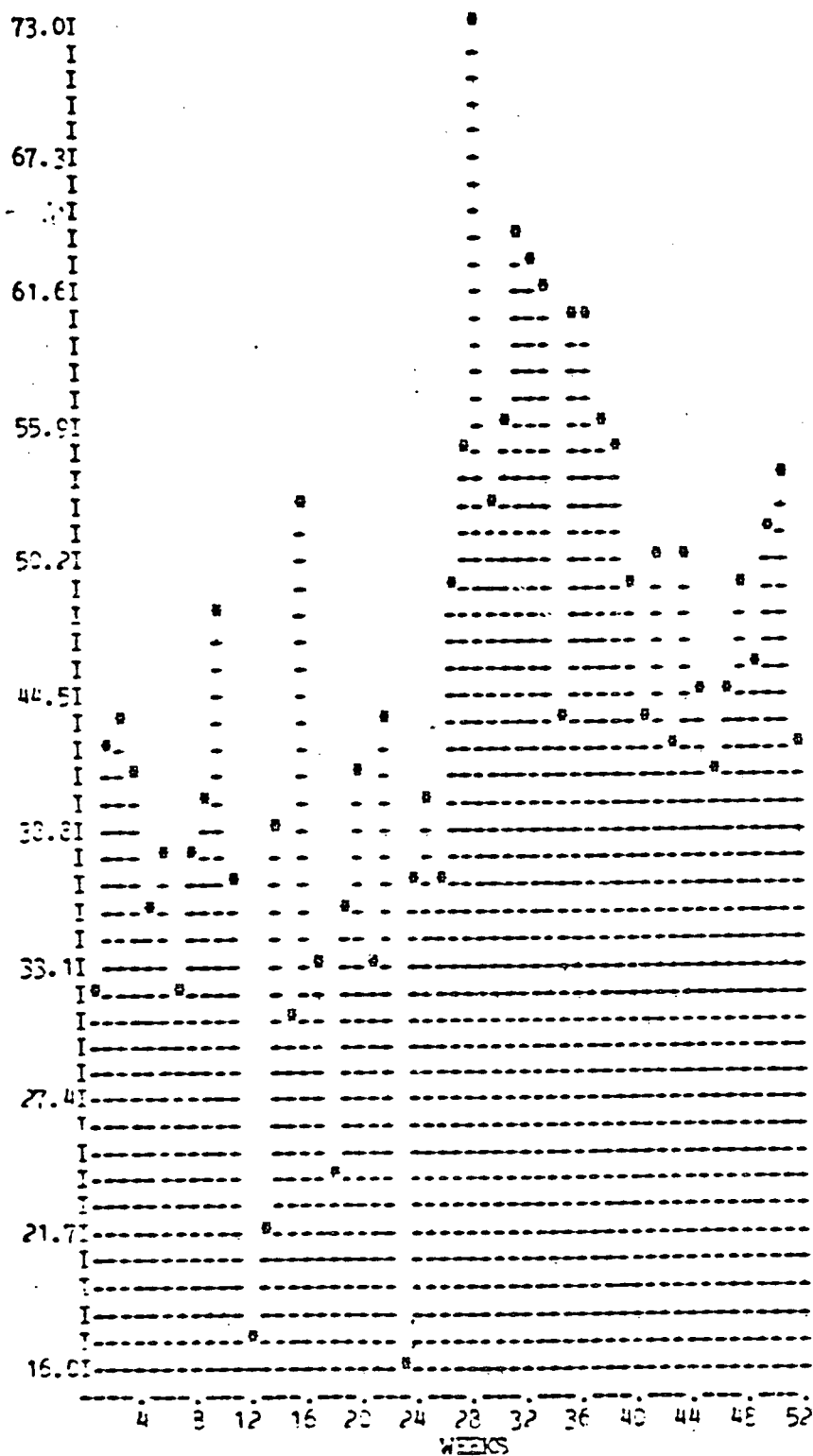
EXHIBIT IV-3

SETTLED PRETRIAL
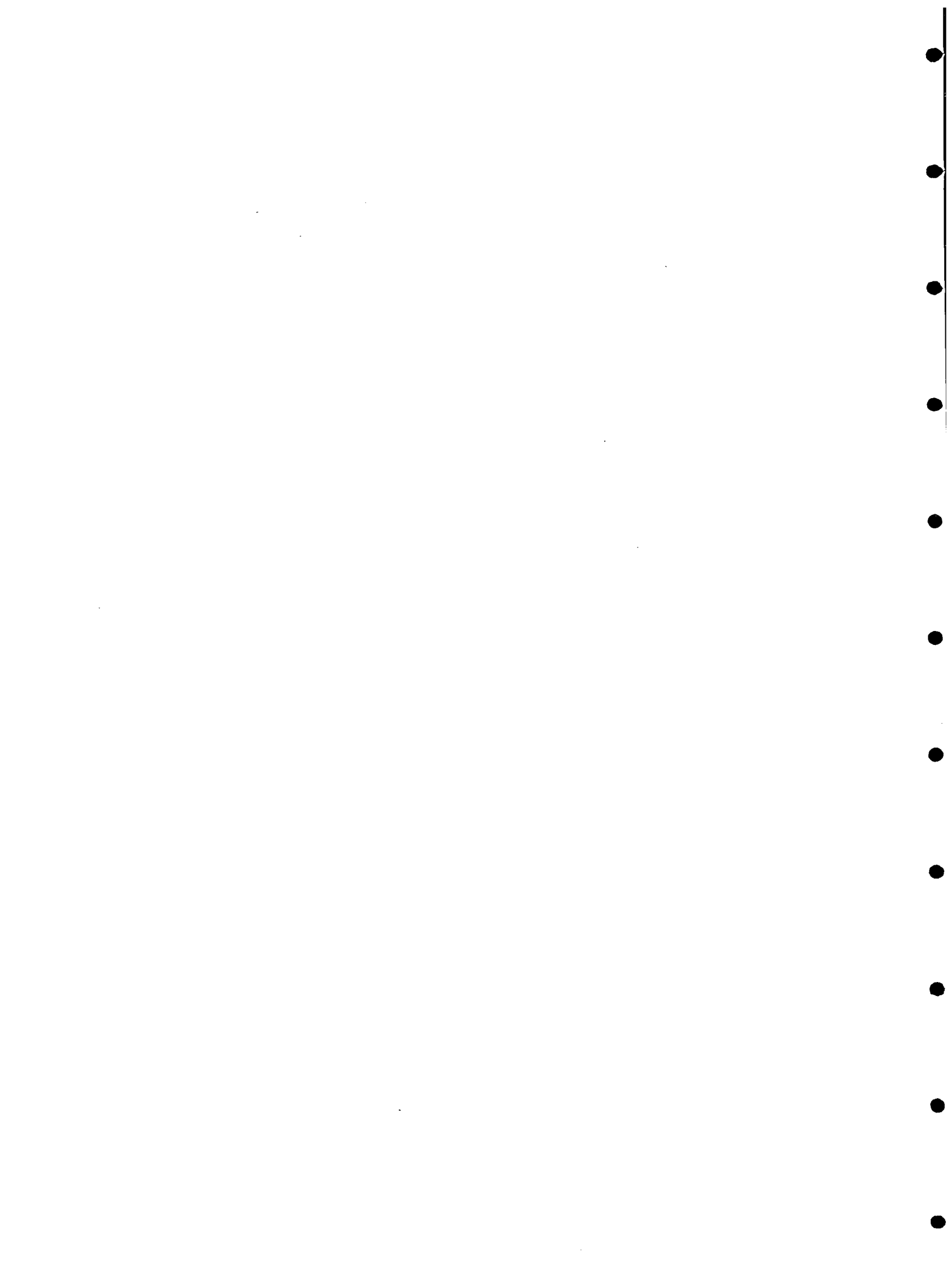
but can yet offer no explanation. We will continue this dis-
cussion, then, in a later section. As a historical note, the
scheduling approach used in Period 2, although apparently
performing well, was abandoned in favor of the old system
after one year of operation.

A second example of exploratory analysis comes from the
D.C. Superior Court. During the two-year period 1974-1975,
there was no significant increase in the felony arrest rate.
Yet, the court's backlog was increasing and delay in felony
cases was rising.

Exhibit IV-4 illustrates some of the salient features
of the case flow. During each six-month interval, we see that
arrest rates remained fairly constant. Moreover, the rate at
which felony cases were initially accepted for prosecution
rose only slightly, not enough to explain the increased back-
log. However, looking at the grand jury decision, which took
place about 60 days after arrest, we note a dramatic increase
in indicted cases. More cases (almost 50 percent) were sur-
viving the grand jury process to be introduced into the court's
backlog. In 1975, there appears to have been a major change
in prosecution policy. Less serious cases, that were once
being dismissed or otherwise disposed prior to indictment,
were not being indicted by the grand jury and thus resulting
in more cases requiring adjudication.
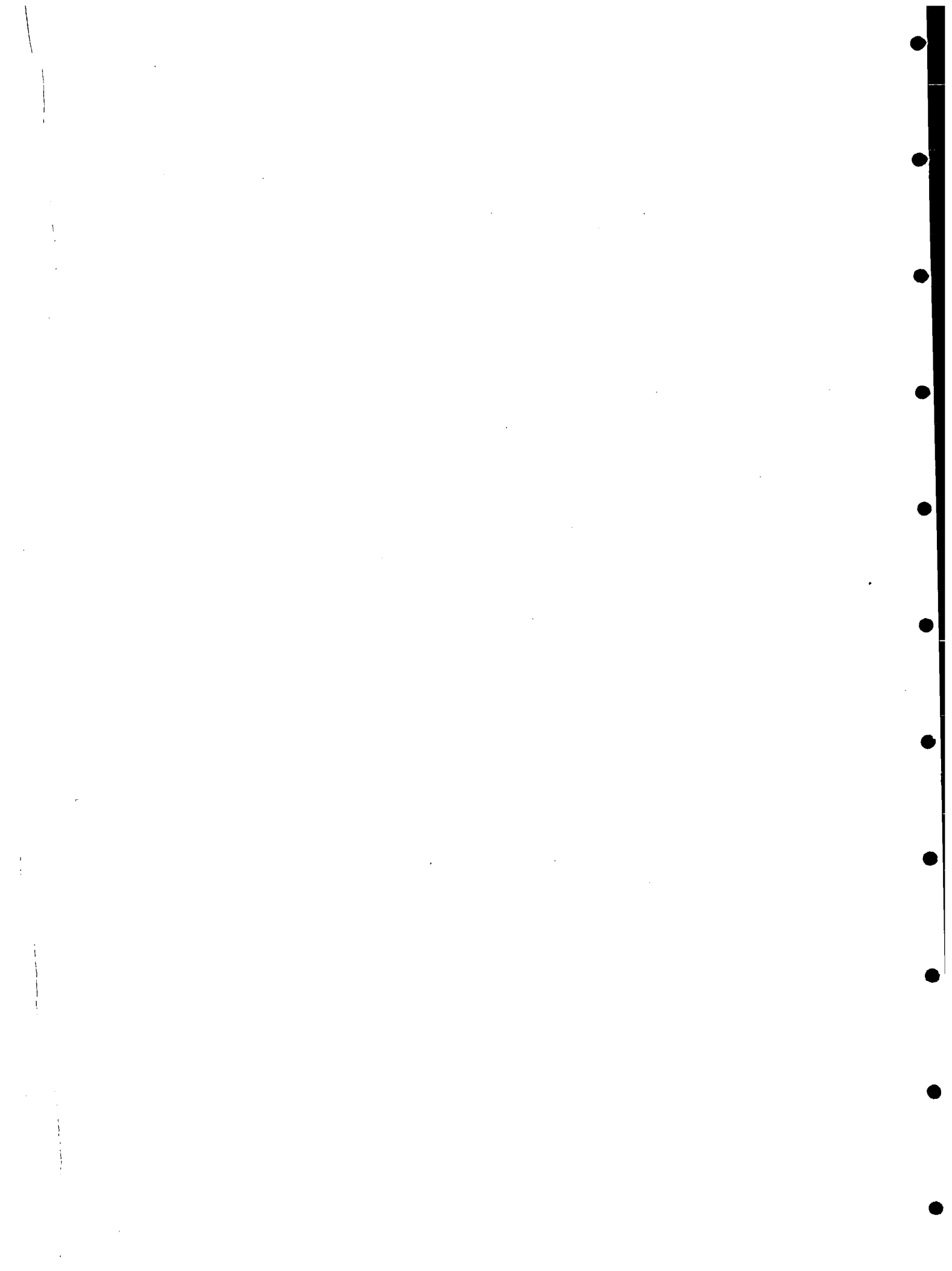
EXHIBIT IV-4

FLOW OF FELONY CASES FROM ARREST TO INDICTMENT
(D.C. Superior Court)

	Jan.-June 1974	July-Dec. 1974	Jan.-June 1975	July-Dec. 1975	1974-1975
Average Number of Arrests per week on Felony Charges	148	173.7	159.2	157.5	159.6
Average Number of Cases Accepted on Felony Charges per week	110.7	129.5	125.3	121.6	121.8
Average Number of Cases Not Accepted per week	32.0	32.0	24.9	27.1	29.0
Average Acceptance Rate	78%	80%	83%	82%	81%
Average Number of Cases Indicted by the Grand Jury (includes Grand Jury originals) per week	59.9	61.4	89.6	87.0	74.5
Survival Rate for the First Processing State (percent of filed cases indicted)	54.1%	47%	71.5%	71.5%	61.2%

Source: Derived from PROMIS data on cases screened in 1973, 1974, and 1975 and
pending or disposed in 1974-1975.
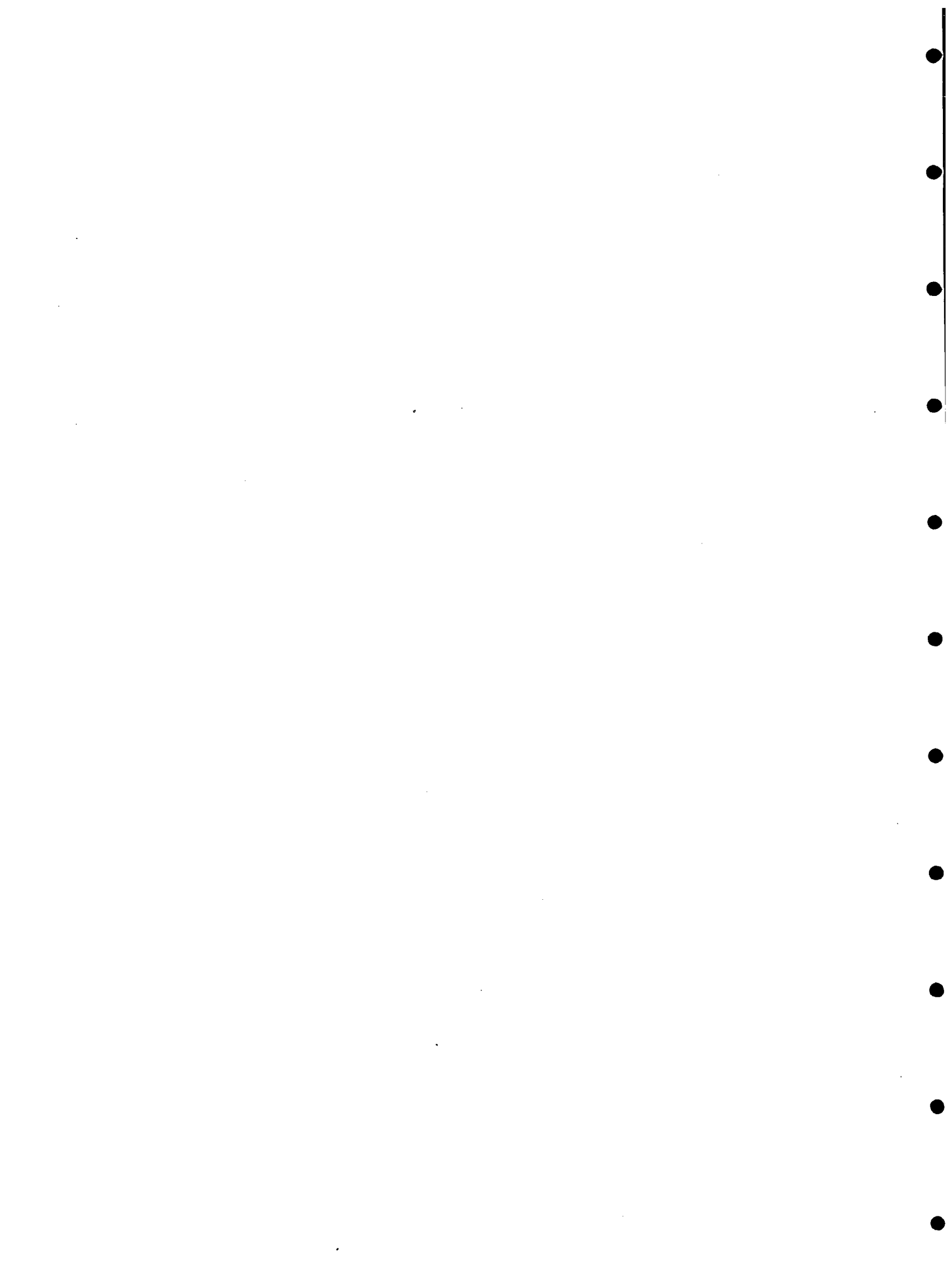
The court, although unable to control the influx of cases, should be able to adjust its scheduling practice accordingly. However, without some monitoring and review of the pending case load, such an adjustment would be impossible.

Qualitative data collection

The collection of quantitative data is rarely sufficient to allow the preparation of a comprehensive picture of court activities. It is wise to supplement the quantitative description with a qualitative description offered by key actors in the court process. This accomplishes several things. It promotes involvement in the study by those who must ultimately use its results. It also facilitates definition of court objectives and establishment of performance standards (e.g., speedy trial). Additionally, comparison of the anecdotal and quantitative experience often proves useful.

In the Wayne County Circuit Court, a questionnaire (Attachment A) was distributed to a number of Circuit Court judges and some remarkable insights derived. To review a few:

. The 20 judges felt that 15 months was the maximum time a civil case should be permitted to languish in the courts. (Few realized that civil trial cases were taking up to four years to reach adjudication.)

. They agreed that the court should promulgate a well-structured continuance policy with the Chief Judge retaining responsibility for dispensing continuances. (Again, few were
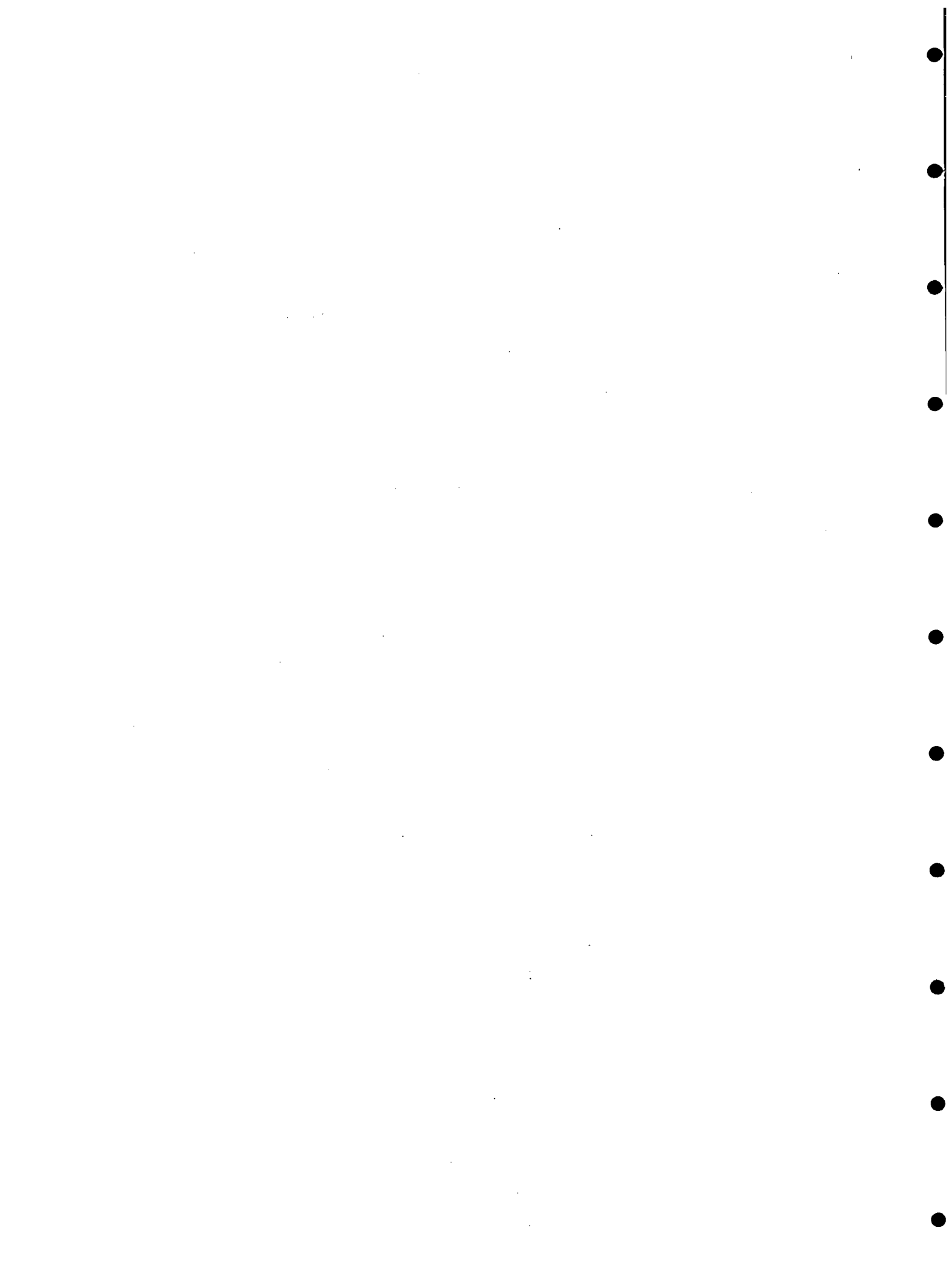
aware that the Assignment Clerk dispensed a large proportion of the court's continuances.)

. Most judges were more comfortable with the old scheduling system (four days of trial), and indeed most felt that the old system performed better than the new one (five half-days of trial). (No data had been presented to them on the relative performance of the two systems.)

Principles of data collection

If forced to distill the above observations into a few principles of data collection, we attempt the following:

1. Don't trust your instincts--collect real data. The results may be surprising.

2. A little data is usually better than none. Don't spend months on data collection--use what you have. Moreover, the analyst must keep in mind that he will have to explain his results and methodology to policymakers not generally familiar with advanced mathematics. The simpler the model, the easier it will be to explain and the better the chance that the policymaker will understand the analysis.

3. Make sure all possible data sources are tapped. Some administrator may be collecting data for his own use which may prove useful to the analysis.

4. Supplement quantitative data with anecdotal experience in order to provide a useful bench mark for comparison.

IV-24
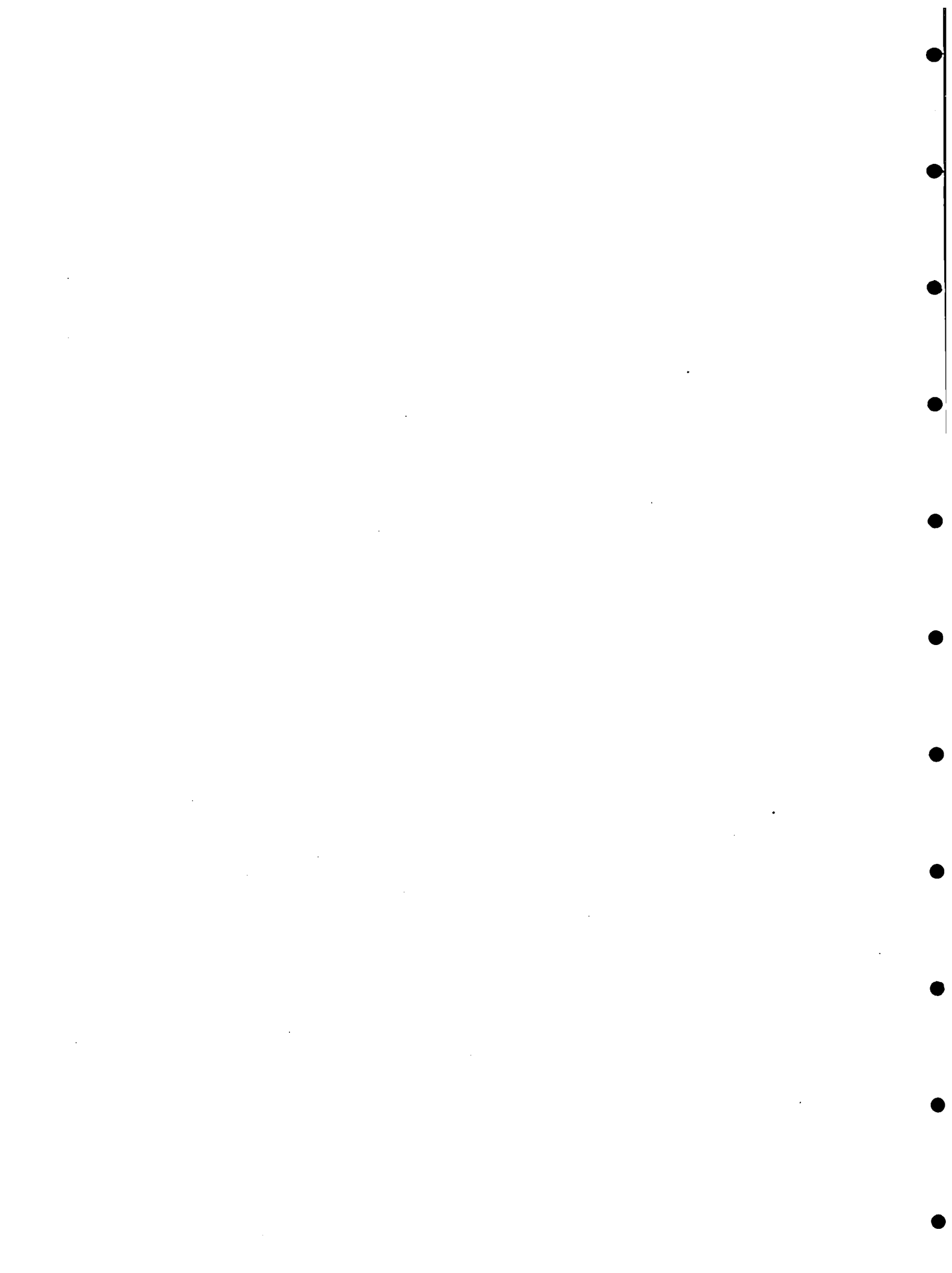
Analysis and Interpretation

This phase of the systems analysis focuses upon the utilization of models or other methods to illustrate trade-offs and to allow more informed decision making regarding the selection of court operating policies. Preference for a particular operating policy should be based on an analysis of the consequences resulting from that selection. To this end, a model of the process can be used to help in decision making.

In this section we will apply simple modeling techniques to the decision area of scheduling policy. Also we will review a second example, concerning information flow, illustratiing the use of nonquantitative models.

Scheduling policy--an example

Earlier we noted a peculiar change in the manner in which cases in the Wayne County Circuit Court were being disposed. Following a change in the calendaring approach, the rate at which cases were settled increased dramatically. There appeared to be no other policy changes in the court which would explain the increase. Yet it would be hard to simply ascribe the increase in settlements to the new calendaring policy.

To examine the question further, INSLAW utilized data on scheduling which had been specially collected for another purpose by the Assignment Clerk. These data described calendar outcomes for the Wayne County Circuit Court, Civil Trial Division, during the period January 1976 through October 1976.

For each court day, the number of civil cases scheduled for trial, the number of trials started, the number of adjournments granted, and the number of cases settled prior to trial were determined. Summary statistics on these data are presented in Exhibit IV-5.

Exhibit IV-5 is not very illuminating in itself. However, the availability of data over a wider range of cases and events scheduled allows an interesting analysis. The Assignment Office scheduled between 18 and 47 trials each day during the period. We can now review the scheduling "system" performance during that same period. Specifically, we examine how trial commencements, settlements, and adjournments vary as a function of the number of cases scheduled.

Exhibit IV-6 displays the average number of trials started plotted against the number of cases scheduled for trial. Each data point is accompanied by an encircled number which indicates the number of observations at that point. So, for example, there were a total of 32 days (observations) on which exactly 23 cases were scheduled for trial, and the average number of trials started on those 32 days was 3.97. The curve in Exhibit IV-6 is drawn to approximate the relationship between trials started and cases scheduled, weighted by the number of observations at each point.

Exhibit IV-6 indicates that, as the number of cases scheduled for trial increases, the number of trials actually begun also increases. However, it is not a constantly increasing
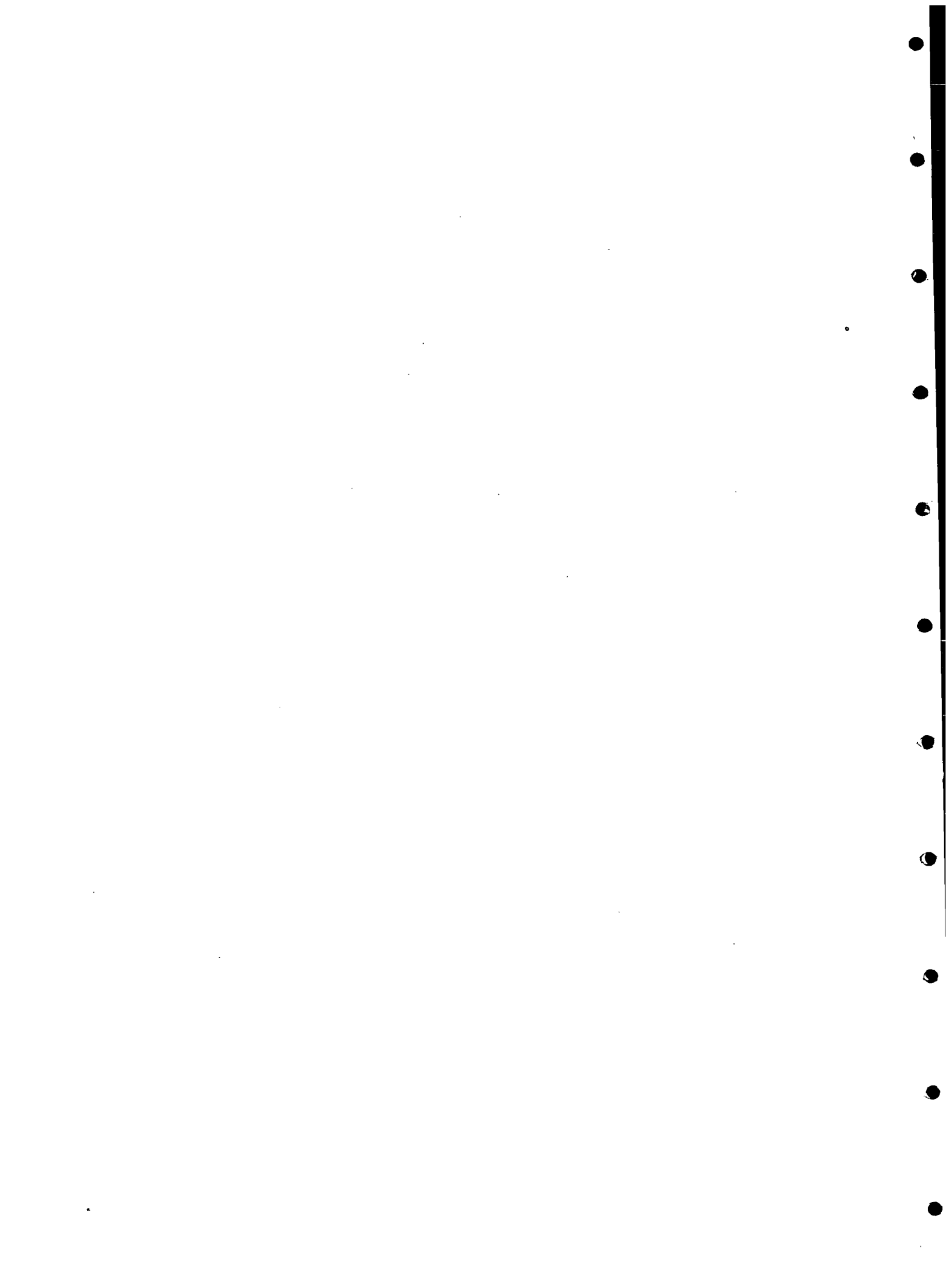
EXHIBIT IV-5

CIVIL CASE DATA FOR EACH COURT DAY
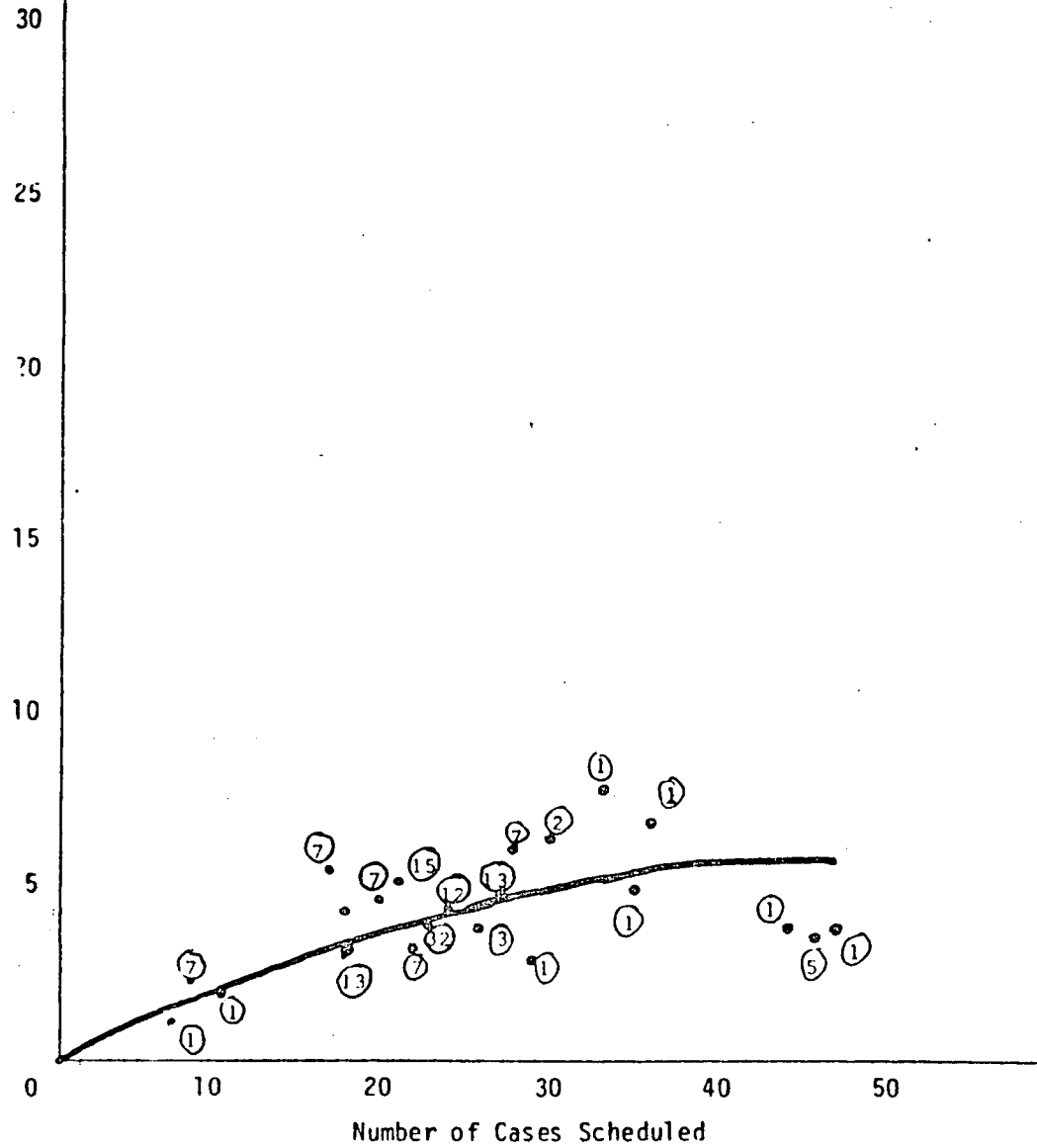
Variable	Mean	Median	Standard Deviation	Range
Number of cases scheduled	23.73	23	7.42	18-47
Number of trials started	4.25	4	2.64	0-14
Number of cases settled	6.32	6	2.87	0-12
Number of adjournments granted	10.91	10	6.18	0-34

EXHIBIT IV-6

CASES SCHEDULED VERSUS TRIALS STARTED

IV-28
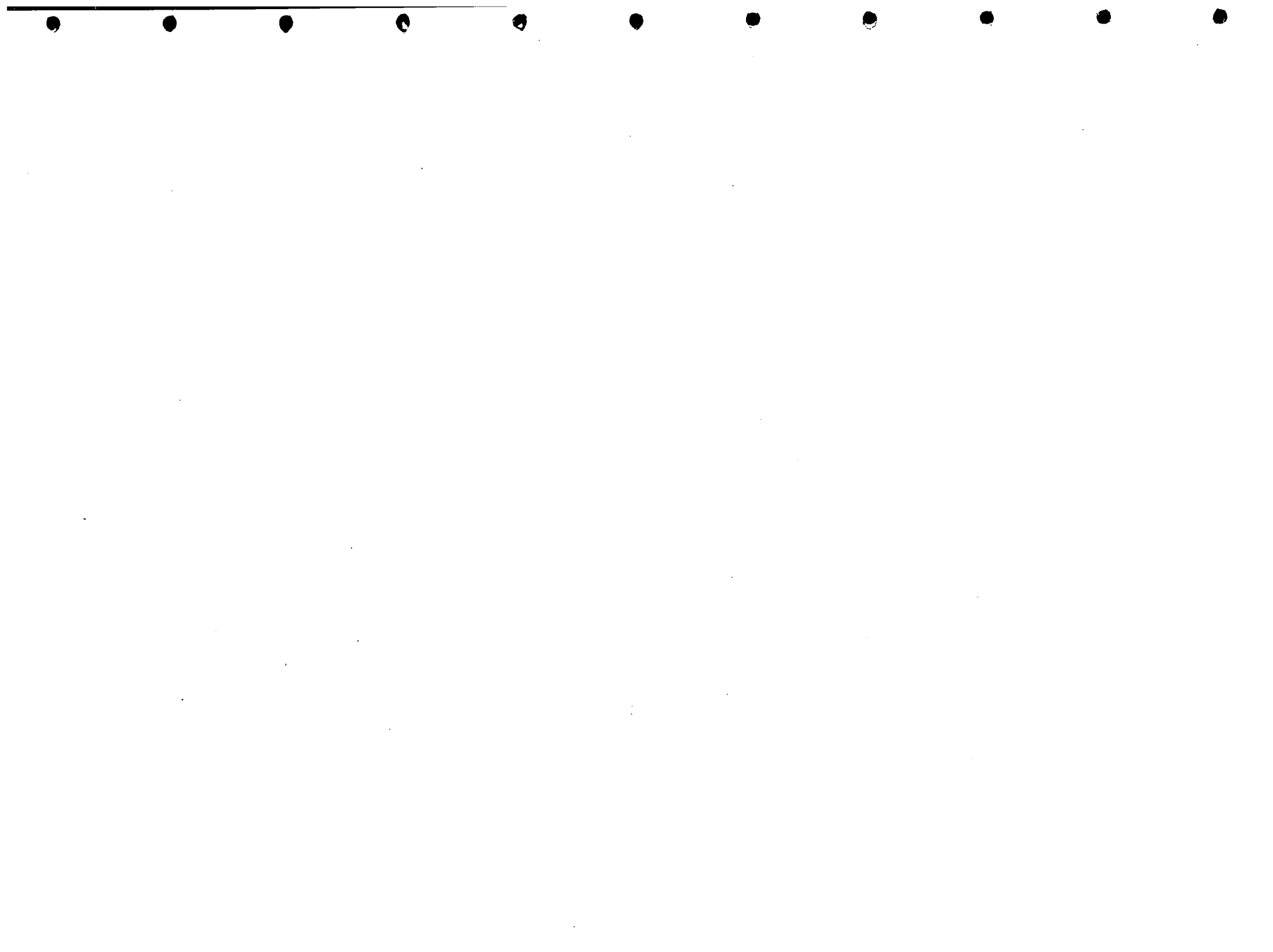
function. There appears to be an upper bound for the number of trials which can be commenced. (This upper bound--6 or 7 trials--is probably more closely related to the number of judges available than to the number of cases scheduled.) The data seem to indicate that there may even be a drop in trial efficiency as a large number of cases is scheduled; that is, as more time is required for administrative matters, less time is available for trial.

Exhibit IV-7 examines the relationship between the number of cases scheduled and the number of settlements prior to trial. The graph indicates an area in which a scheduling parameter (e.g., the number of cases scheduled) is in fact a strong policymaking tool for the court. There is a clear and strong relationship between the two variables, which supports the theory that it is the threat of trial that induces settlements. As the number of cases scheduled for trial increases, the number of settlements increases dramatically. This increases the disposition rate and reduces the backlog of the court without requiring additional resources. (Herein also lies a possible explanation for the increased settlement rate following the changeover from the four-day trial schedule to the five-day trial schedule. As a by-product of the changeover, the number of cases scheduled was also increased to accommodate the extra trial day.) The cases that are settled would probably have had the same outcome, only at a later point in time.

IV-29
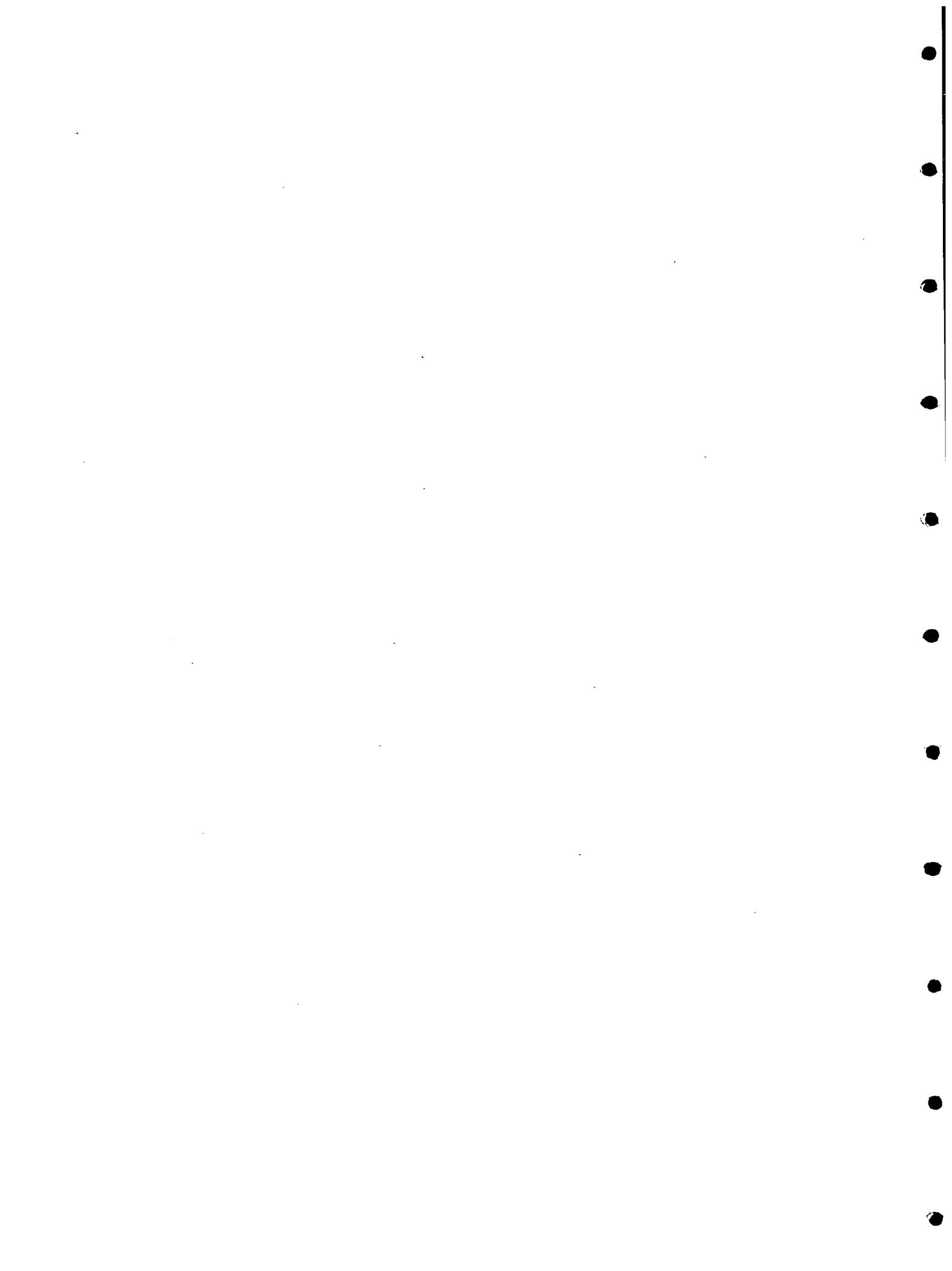
EXHIBIT IV-7

CASES SCHEDULED VERSUS CASES SETTLED
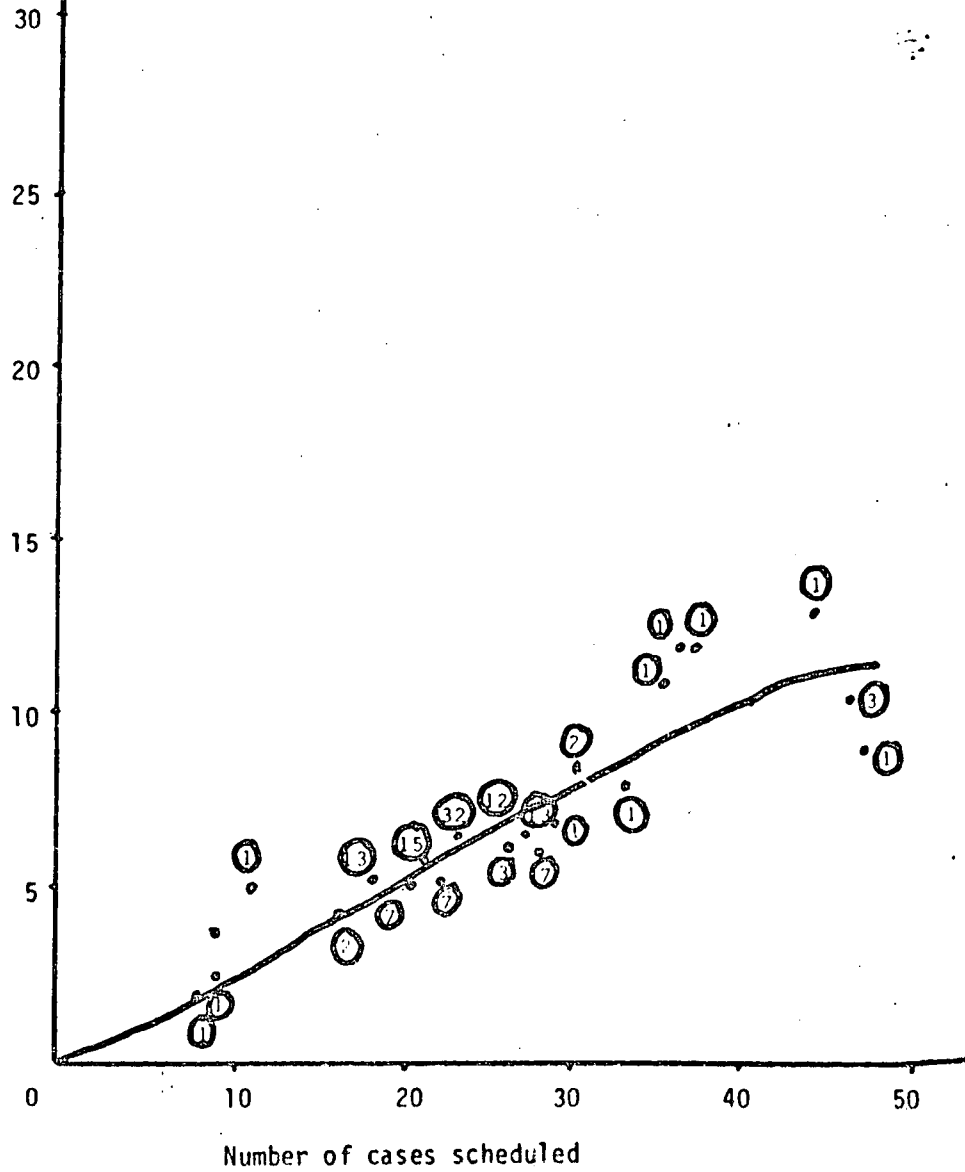
IV-30
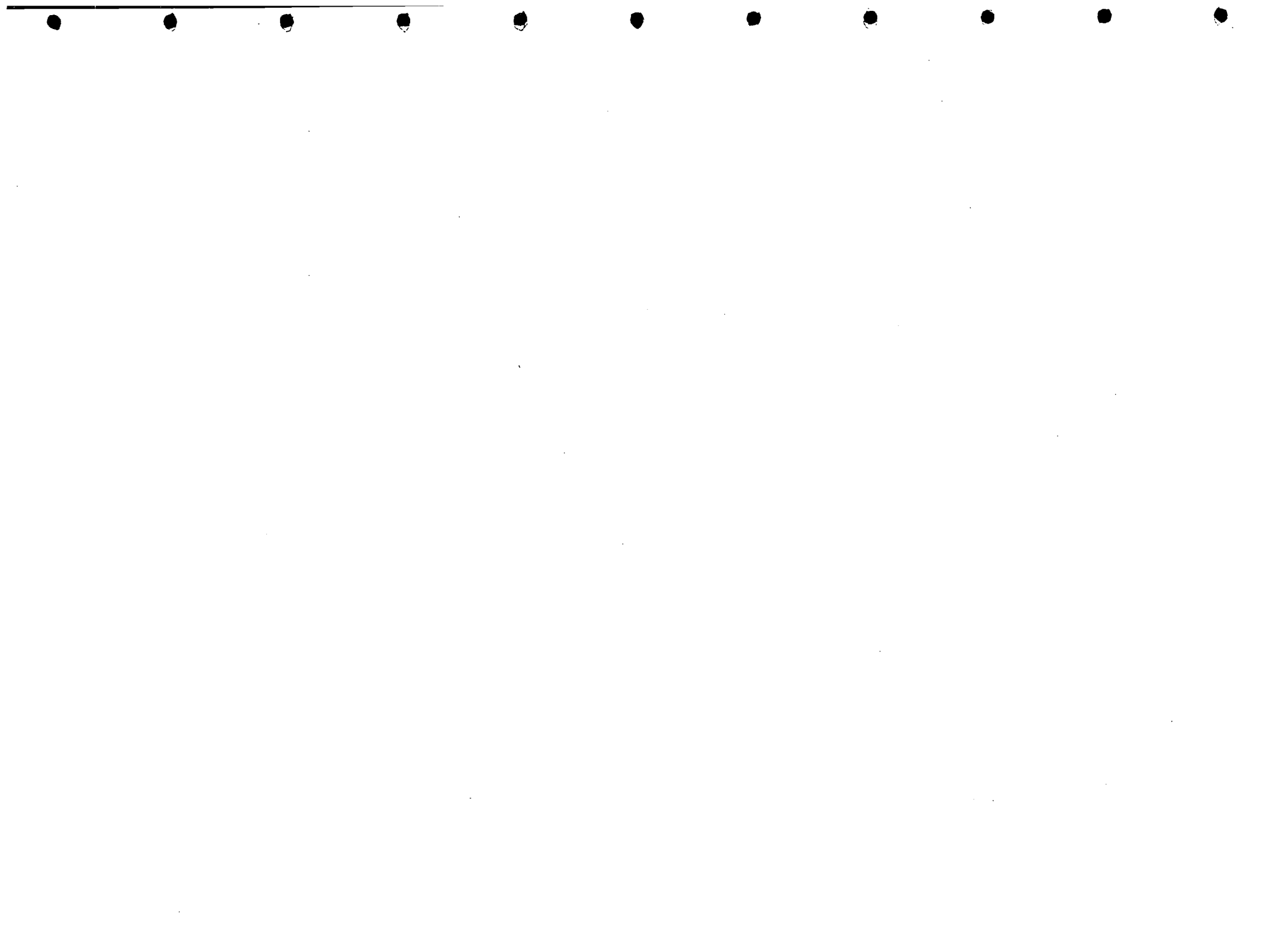
We have thus far examined some of the consequences of increasing the number of cases scheduled--a slight increase in the number of trials started and a strong increase in the number of settlements. However, increasing the number of cases scheduled but not simultaneously expanding the capacity of the court cannot be accomplished without cost. Exhibit IV-8 examines the relationship between the number of cases scheduled for trial and the average number of adjournments granted by the court or the Assignment Office. Clearly, as the size of the calendar increases and the court's capacity remains the same, only some of the surplus is taken up by increased settlements. The remainder of the cases must be adjourned and re-scheduled for another day. This requires all the case partici-pants to reappear at yet another date for the opportunity to have their case adjudicated. The increase in adjournments as calendar size increases is startling. If 50 cases are scheduled for trial, as many as 35 will have to be rescheduled.

We see, then, that the increased settlement rate was not simply a product of the new calendaring process. Rather, it is more reasonably associated with the number of cases scheduled for trial, irrespective of the actual structure of the calendar. Concurrent with the change in calendar structure came a change which increased the average number of cases scheduled for trial on a given day.
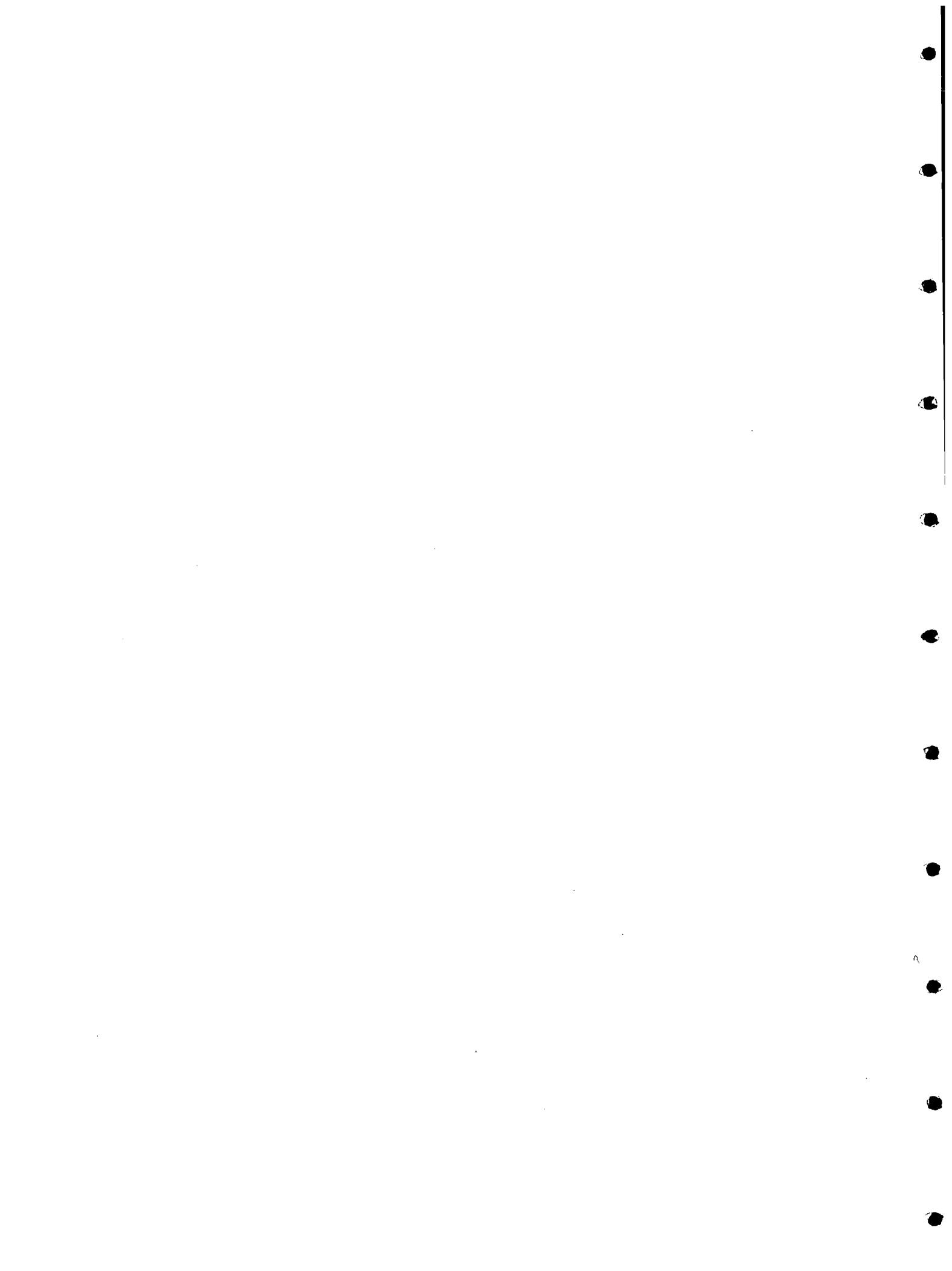
EXHIBIT IV-8

CASES SCHEDULED VERSUS ADJOURNMENTS
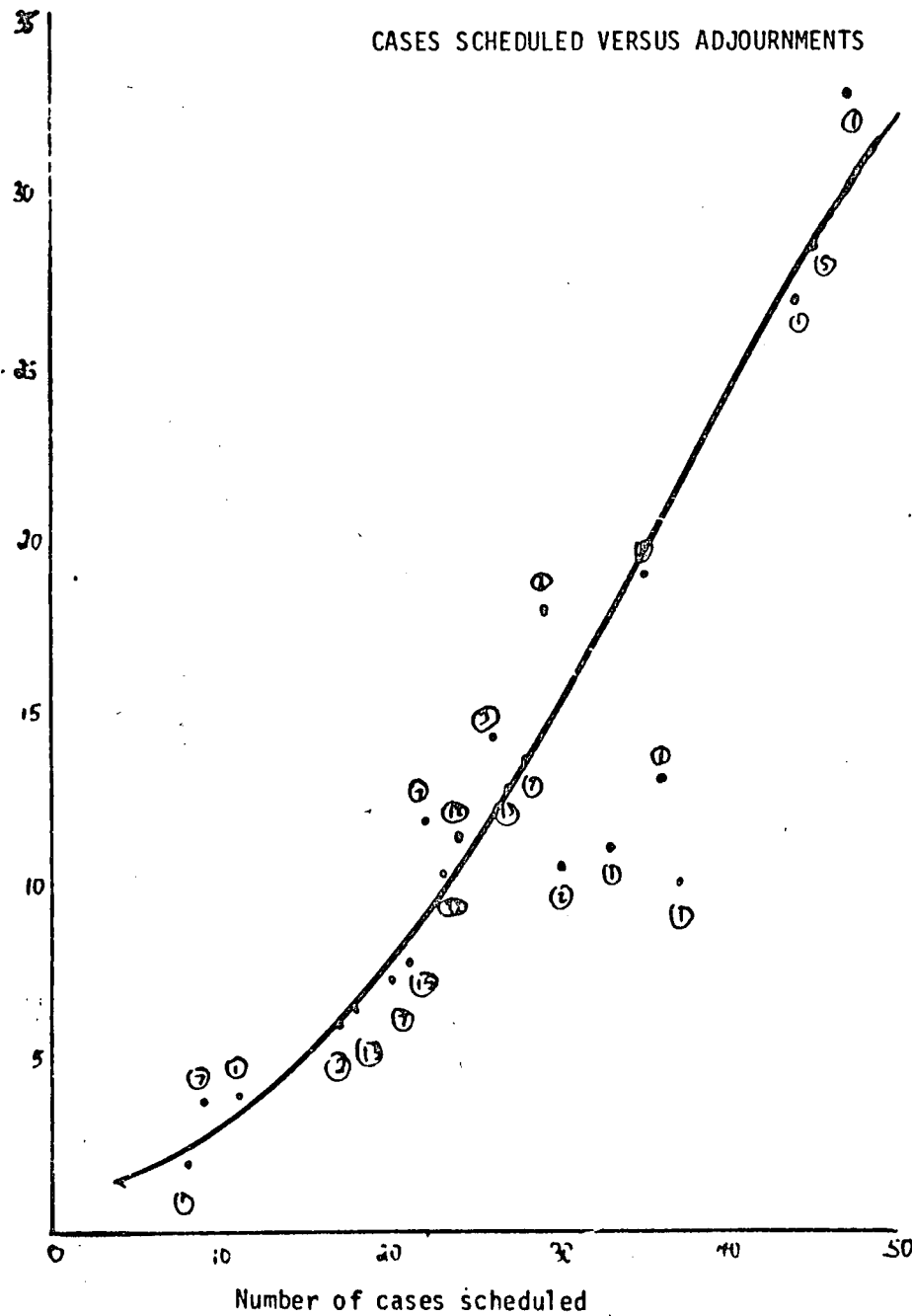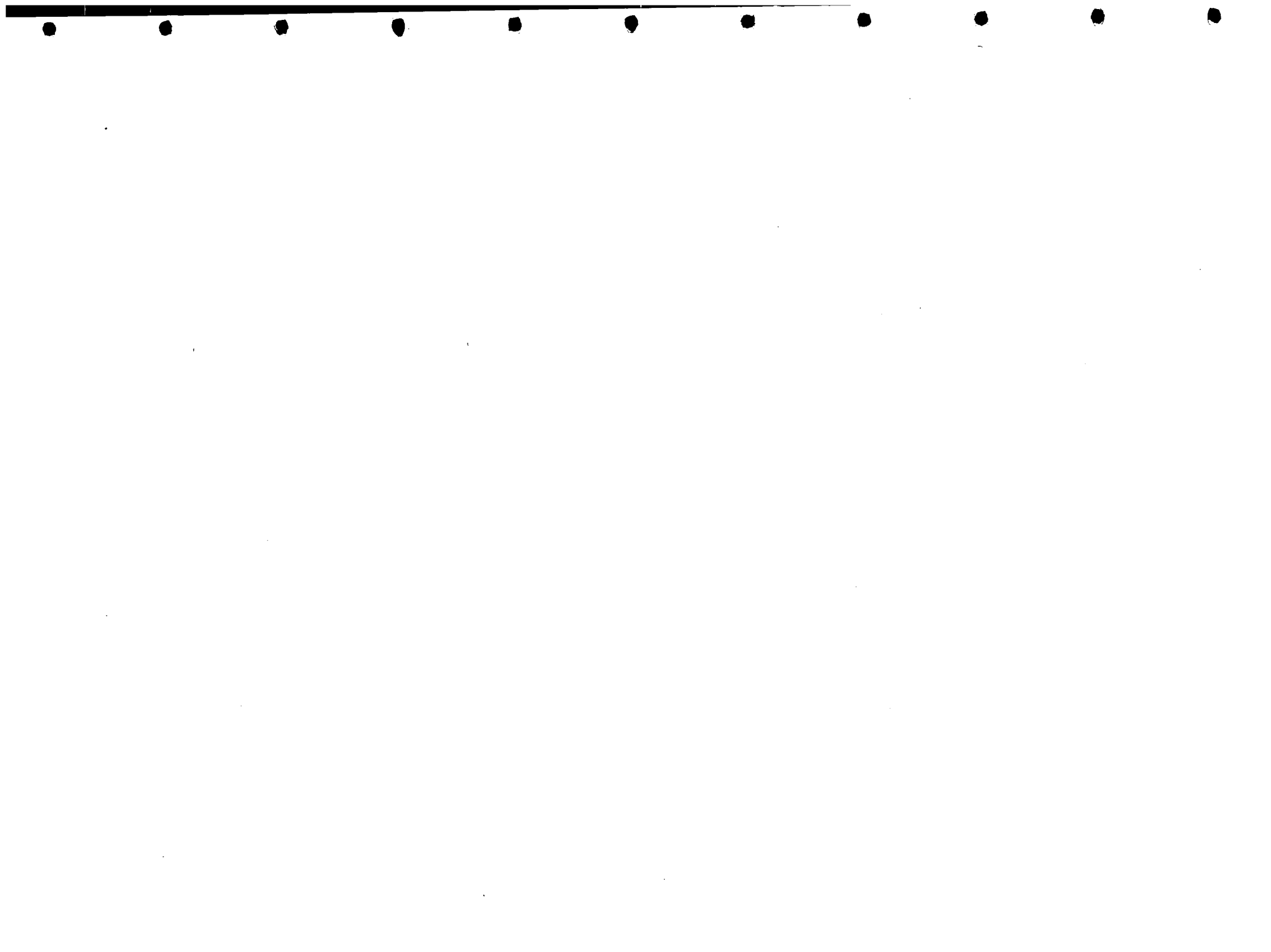
Given the information just developed, determining the optimal calendar is still not a straightforward process. To make that decision requires clear articulation of the court's objectives with respect to disposition rates and litigant convenience, thus associating a cost, subjectively or objectively, to continuances relative to the benefit of a disposition (trial or settlement).

Exhibit IV-9 illustrates some of the trade-offs involved. For example, if the court wishes to simply maximize dispositions and is unconcerned with litigant convenience, the optimal policy is at Point A (e.g., schedule 48 cases for trial of which, on the average, 6 will be tried, 11 settled, and 31 continued). Alternatively, the court may wish to minimize participant inconvenience--tnat is, assign a high cost to continuances relative to the benefit of disposition. Then the optimal policy would be at Point B with relatively few dispositions but also very few continuances.

It seems that neither of the two extremes, although statistically optimal, represents a reasonable approach for the court. A good scheduling policy would lie somewhere between A and B. For example, at Point C the cost of a continuance and the benefit of a disposition are approximately equal. That is, schedule 25 cases of which 5 are expected to be tried, 7 settled, and 13 continued. Reasonable polices appear to be in

TRADE-OFFS ASSOCIATED WITH THE NUMBER OF CASES SCHEDULED - EXHIBIT IV-9

Adjournments,
settlements,
trials started

Number of
adjournments

Number of
settlements

Number of trials
stated
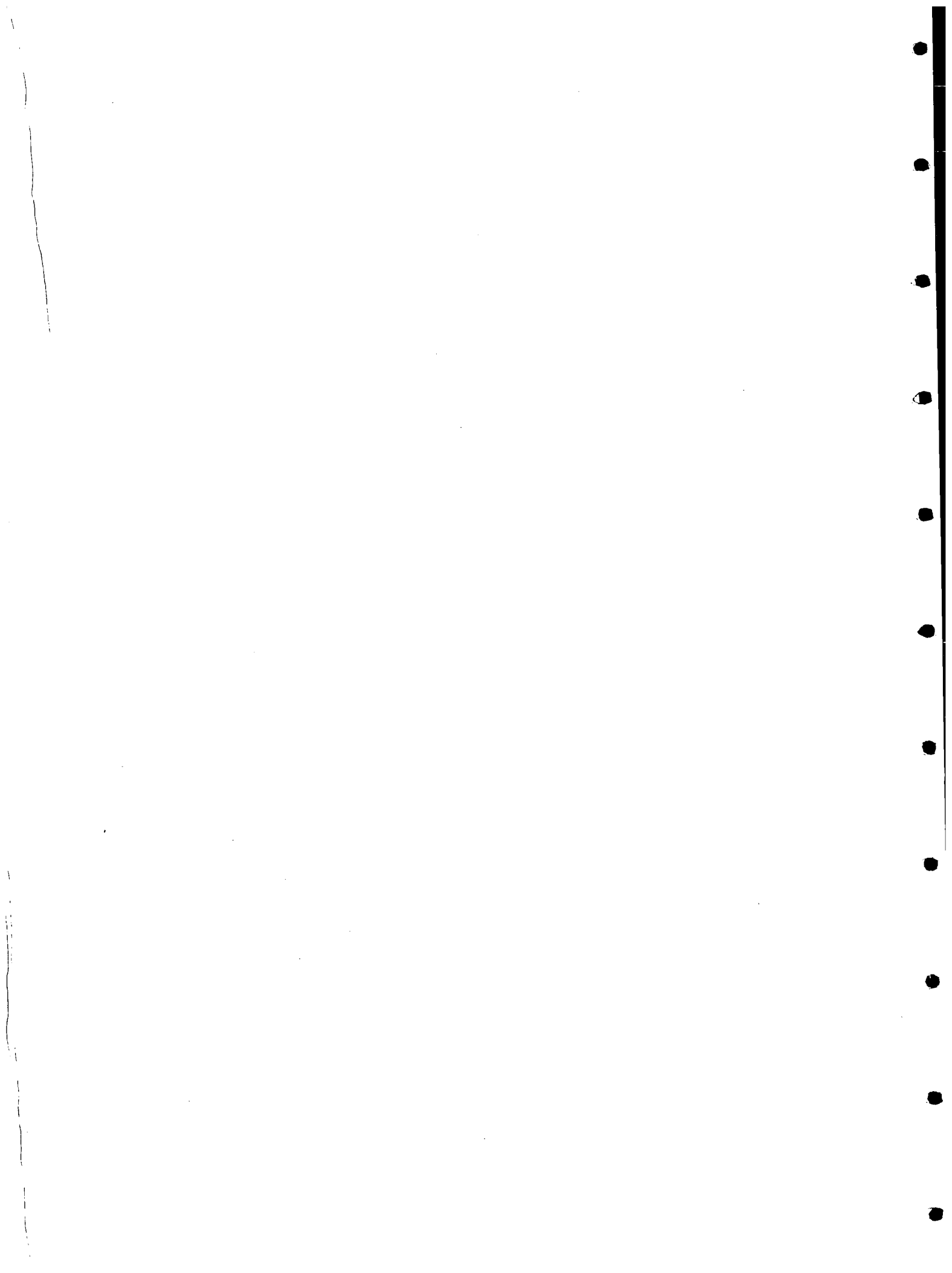
Number of cases scheduled

IV-34
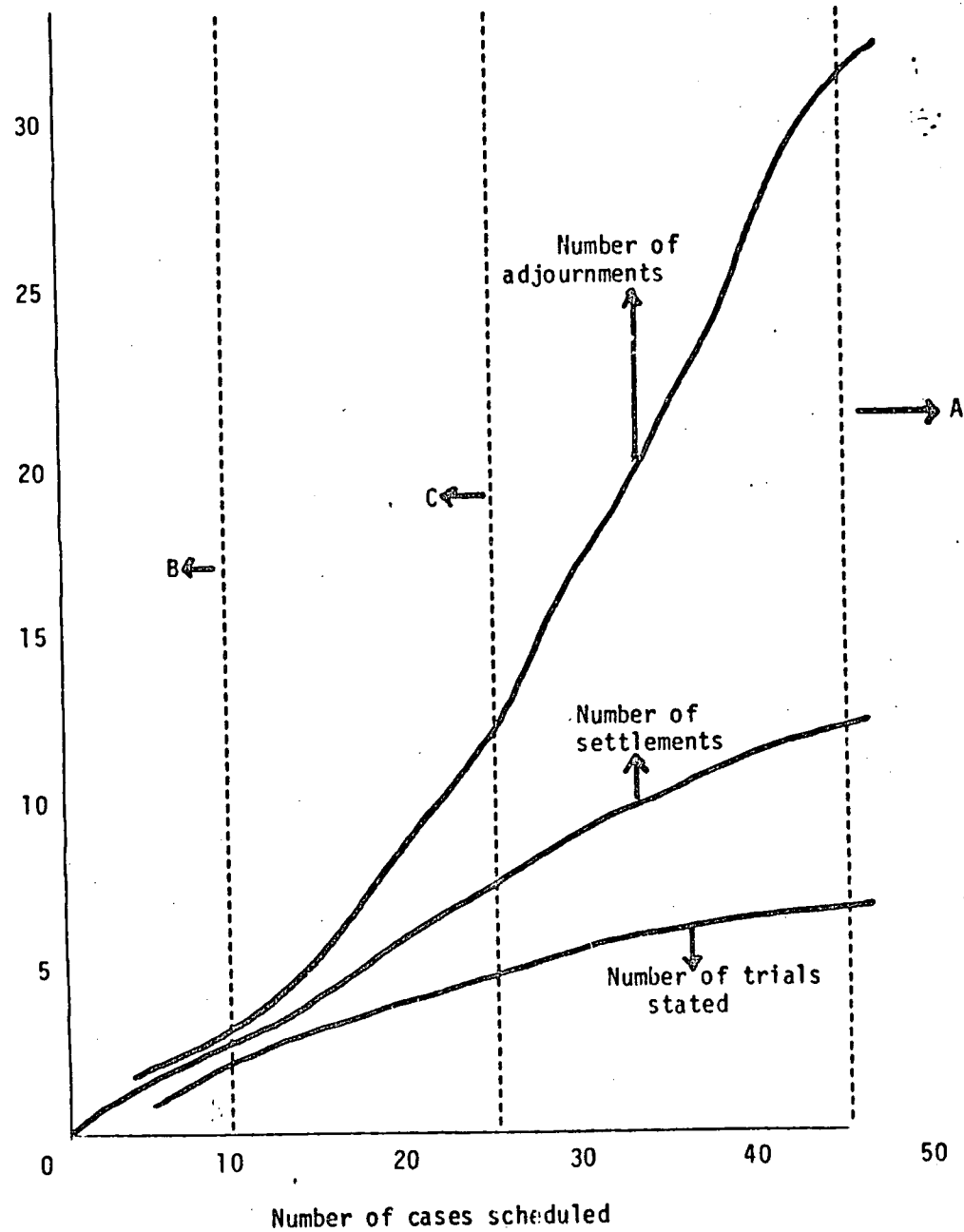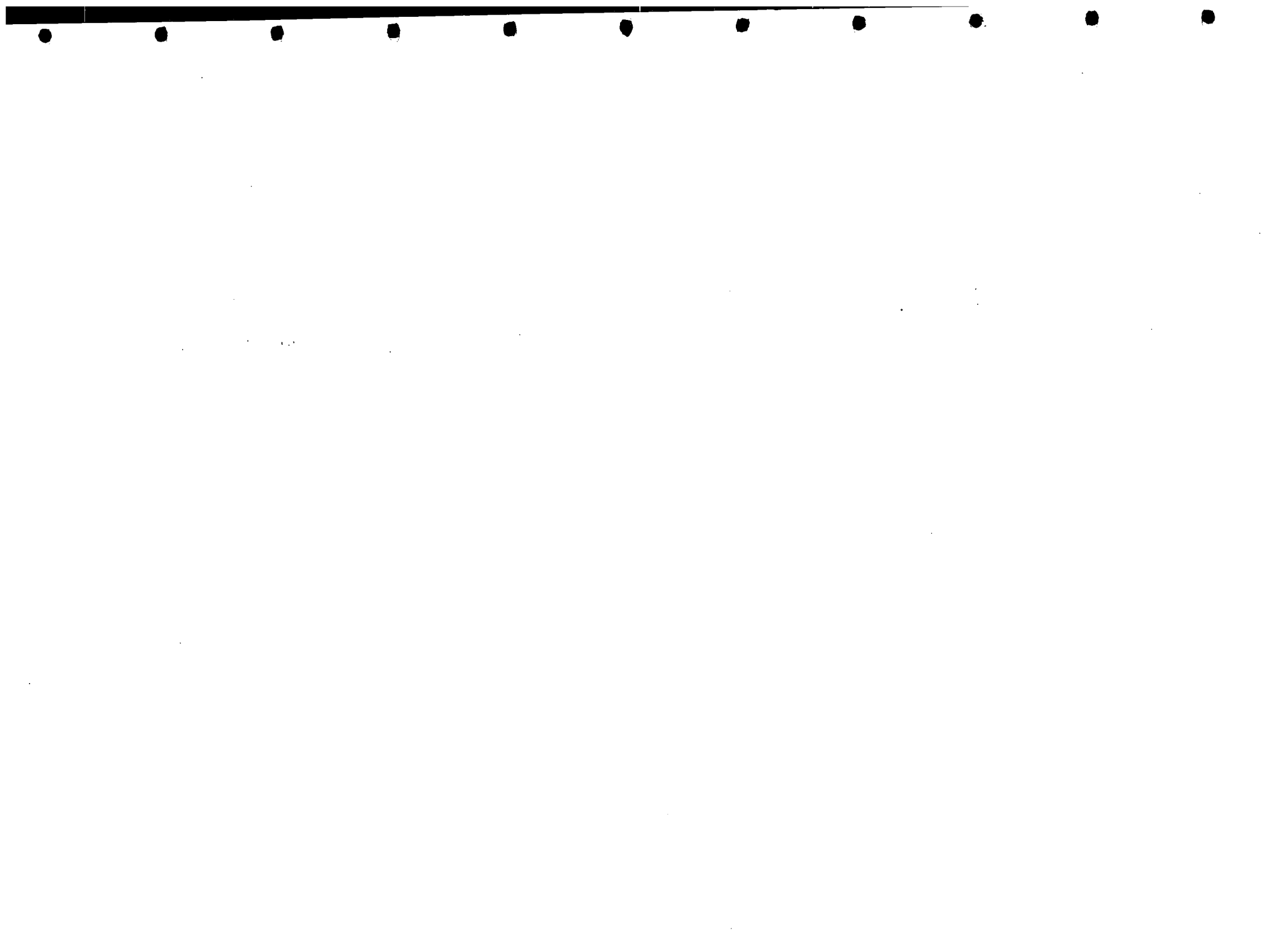
the range of 20 to 40 cases scheduled per day. The one selected should reflect the court's feelings about the trade-off of court productivity versus participant convenience.

Information flow--an example

A systematic analysis of court operations may produce additional benefits as well. Not all elements of a systems analysis involve formal quantitative analysis. As part of its work with the Wayne County Circuit Court, INSLAW conducted a procedural analysis of the Assignment Office. In the course of the procedural analysis, all steps of the calendaring and assignment process were carefully reviewed and documented. Exhibit IV-10 is an excerpt of this documentation. (The complete report is contained in Attachment C.)

The review of operations produced a suggested version in procedures. When an event is scheduled or rescheduled, all participants must be notified. In Wayne County the notification is by mail. In fact, approximately eight different kinds of notices are currently sent out, each individually typed. They include:

Notice	Approx. Weekly Notifications
Uncontested Divorce Trial	320
Contested Divorce Trial	150
Pretrial Hearing	300
Civil Trial	300
Competency Hearing	20
Appeal Hearing	20
Arraignment	200
Criminal Trial	60

EXHIBIT IV-10

EXCERPT FROM A PROCEDURAL ANALYSIS

(1) Disposition from praecipe posted in computer books and filed in judge's disposition box for manual statistical report of dispositions.

3. Civil Cases (Other than Divorce or Paternity)

(a) A white "At Issue Praecipe" (Figure 5) prepared by the defense attorney is forwarded to the Assignment Clerk's office from the County Clerk.

(b) Cards are received and immediately filed by judge and case number where they remain for approximately 30 months.

(c) Eight weeks prior to pretrial conference (PTCN, oldest cases pulled from general pending case file, scheduled, and moved to pending PTCN file (done by Kathy Murphy). Scheduled on Tuesdays at 2:15 pm—three scheduled/judge (26 judges).

(d) Notice of Pretrial Conference (Figure 6) prepared (Gloria Wissinger) and sent to attorneys.

(e) Pretrial Conference Calendar typed (Gloria Wissinger).

(f) On day before PTCN, "At Issue Praecipes" pulled and sent to courtroom (Kathy Murphy).

(g) PTCN (40 percent of cases drop out at this stage—settled, dismissed, remanded to lower court). At this point cases may also be ordered into mediation.

(h) PTCN dispositions stamped on "At Issue Praecipe" and it is returned to Assignment Clerk for recording of disposition in computer books (Gloria Wissinger) and filing in the closed case file by judge or in a pending trial file by case number.

(i) Each case is assigned a new judge for settlement conference and trial on the basis of the age of the case and the judge's seniority.

(j) Thirty cases scheduled per day for settlement conference and trial (Nick Shaheen).

(k) Trial calendar typed and Trial Notices (Figure 7) prepared (Lola Stringer) and sent to attorneys.

(l) At Issue Praecipes pulled and filed by settlement conference date. Sent to courtroom prior to case hearing.

Because of the large variety of notices, and the need to prepare a separate envelope as well, notification can be a time-consuming process. INSLAW recommended a single form, shown in Exhibit IV-11, to replace all existing notices. Use of a combined envelope and notice would eliminate separate preparation of each and save additional time.
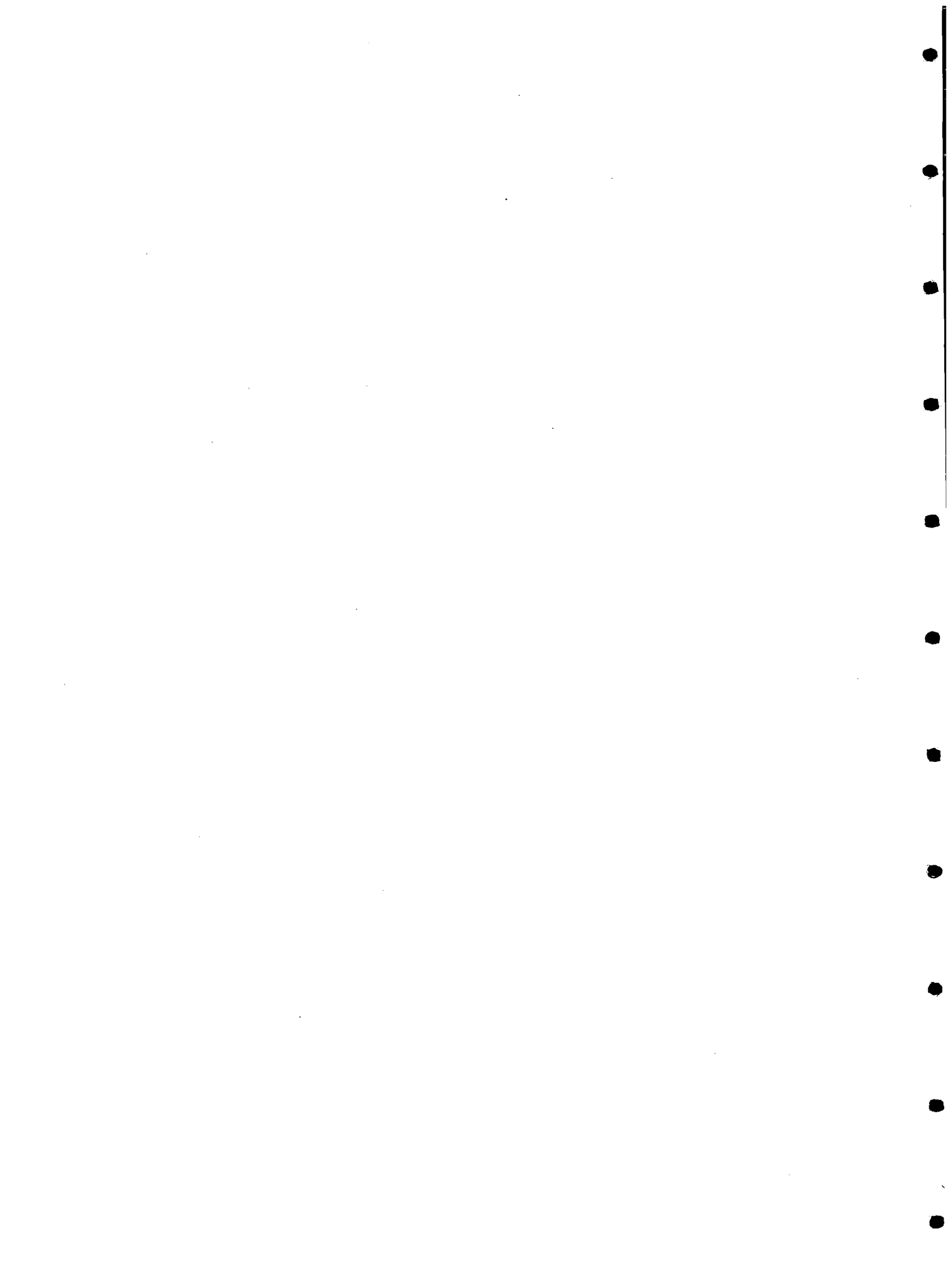
EXHIBIT IV-11

NOTICE TO APPEAR FOR COURT ACTION

CASE NO.

CASE TITLE:

DATE:

STATE OF MICHIGAN
CIRCUIT COURT FOR THE COUNTY OF WAYNE

NOTICE TO APPEAR FOR COURT ACTION

As the attorney of record for the _____ in the above captioned case, you are hereby notified that this case has been scheduled for the following court proceedings on the dates, times and at the locations indicated:

Please notify the Assignment Office at 593-0625 if:

1. You are unable to appear for any of these dates

2. There has been a substitution of attorneys

3. The case has been settled (civil cases)

This notice supersedes all previous notices that pertain to this case.

REFER TO IMPORTANT INSTRUCTIONS ON THE REVERSE SIDE

INSTRUCTIONS TO ATTORNEYS

Civil Cases Other Than Divorces or Paternities

1. Attorneys who will try the case and the litigants are required to be present at this hearing.

2. All requests for adjournment of the Settlement Conference or Trial must be presented in writing to the Presiding Judge. An adjournment will be granted except for good cause, the details of which must be specified in the petition.

3. If the case has been settled, you must present a stipulation and order of discontinuance on or before the next court appearance date.

Divorce Cases

1. It is required that the attorneys and litigants be present at this hearing. If the action is resolved at the settlement conference, be prepared to enter a judgment of divorce.

2. If you are going to proceed to enter a motion for "default judgment of divorce" by withdrawing the answer to the complaint or cross complaint, you must notice your motion at least 4 days preceding the domestic relation motion day and prior to the trial date, or you may make your motion on the trial date.

3. If there has been a reconciliation, you must present a stipulation and order of discontinuance on or before the next court appearance date.

4. Requests for a first adjournment may be granted by the Assignment Clerk for good cause shown in a stipulation signed by both attorneys if presented at least ten days prior to the trial date. All subsequent requests for adjournments must be presented in writing to the Presiding Judge. An adjournment will be granted except for good cause, the details of which must be specified in the petition.

Criminal Cases

1. Failure of defendant to be in court will result in forfeiture of bond.

2. No trial shall be adjourned, except by the Presiding Judge for good cause shown upon written motion, seasonably filed, by the party seeking the adjournment.

3. All preliminary motions will be heard by the Trial Judge on Fridays, upon the filing of a motion praecipe with the Assignment Clerk and proper notice to the opposing attorney.

IMPORTANT. Please contact the Assignment Office on the day prior to each event scheduled on the front of this notice to verify your availability to appear.

IV-38

CASE STUDIES IN THE TRANSFER
OF SCHEDULING TECHNOLOGY

During Phase I of the National Science Foundation court
scheduling project, the Institute for Law and Social Research
(INSLAW) developed a model court scheduling system, which was
enlarged upon during Phase II of the project. This system
consists of three principal components. First, and of foremost
importance, is the management component, defined as the process
of establishing objectives and policies, and planning and
evaluating scheduling procedures accordingly. Given overall
goals and policies framed by a managerial-level group of judges
and the Court Administrator, the stage is set for the calen-
daring component, which involves the assignment of dates, times,
and places to specific court events in a manner consistent with
management-component policies. Finally, the data-support com-
ponent consists of an information system--automated or manual--
that provides both resource and case-tracking data to those
charged with management and calendaring responsibilities.*

Three pilot jurisdictions were selected as sites where
facets of the court scheduling model could be implemented,
which would tend to encourage other courts to follow suit.
Through this "pump priming" strategy, the intent of the project

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*For more details about the model court scheduling system see
Volume I of the Phase II Final Report and INSLAW°s NSF-funded
Guide to Court Scheduling--A Framework for Criminal and Civil
Courts (Washington: 1976).

was that the court scheduling model would gradually find oper-
ational acceptance within the court community. The three pilot
jurisdictions were the Wayne County (Detroit) Circuit Court,
Hennepin County (Minneapolis) Municipal Court, and the Milwaukee
County Circuit Court. Criteria governing the selection of pilot
courts included such factors as a strong administrative struc-
ture, a cooperative and willing climate, an interest in improving
scheduling operations, availability of scheduling data for analy-
sis by INSLAW, and a willingness to assign to the project such
court resources as personnel with analytical ability and, in
most cases, data processing capability.

To help implement aspects of the court scheduling model at
the pilot sites, INSLAW pursued a multistep methodology:

1.   Analyzing current scheduling operations, including
statistical analysis and an examination of procedures and
organization.

2.   Assisting courts to define objectives, with emphasis
on the identification of trade-offs and their consequences and
control.

3.   Helping plan for the implementation of court-set objec-
tives, such as by developing a methodology for the allocation of
judges and demonstrating how the selection of calendar mode and
case assignment system can affect court performance.

4. Developing implementation or work plans to provide for a smooth transition from old to new scheduling procedures and for an informed and involved court support staff. Implicit in the development of work plans were decisions regarding (a) the selection of scheduling methods or procedures identified in other courts during Phase I for transfer to the pilot jurisdictions and (b) the level at which the transfer would occur-- that is, whether it should be at the conceptual, detailed design, or program code level. Also implicit in the implementation process was the need to accommodate or adapt the court scheduling model to differences in operating conditions at each pilot site. Such differences could relate to court size (number of cases scheduled by event type, number of judges), data support (case-tracking system, computer operating system/compilers), and various constraints dictated by statute or policy.

5. Testing and evaluating the transferred scheduling methods.

6. Documenting the implementation to serve the information needs of judges, court administrators, scheduling clerks, and data processing technicians.

In view of the interruption of the implementation process by unforeseen external factors (discussed later), the transfers did not proceed far enough during the period of the grant to warrant application of some of the methodology.
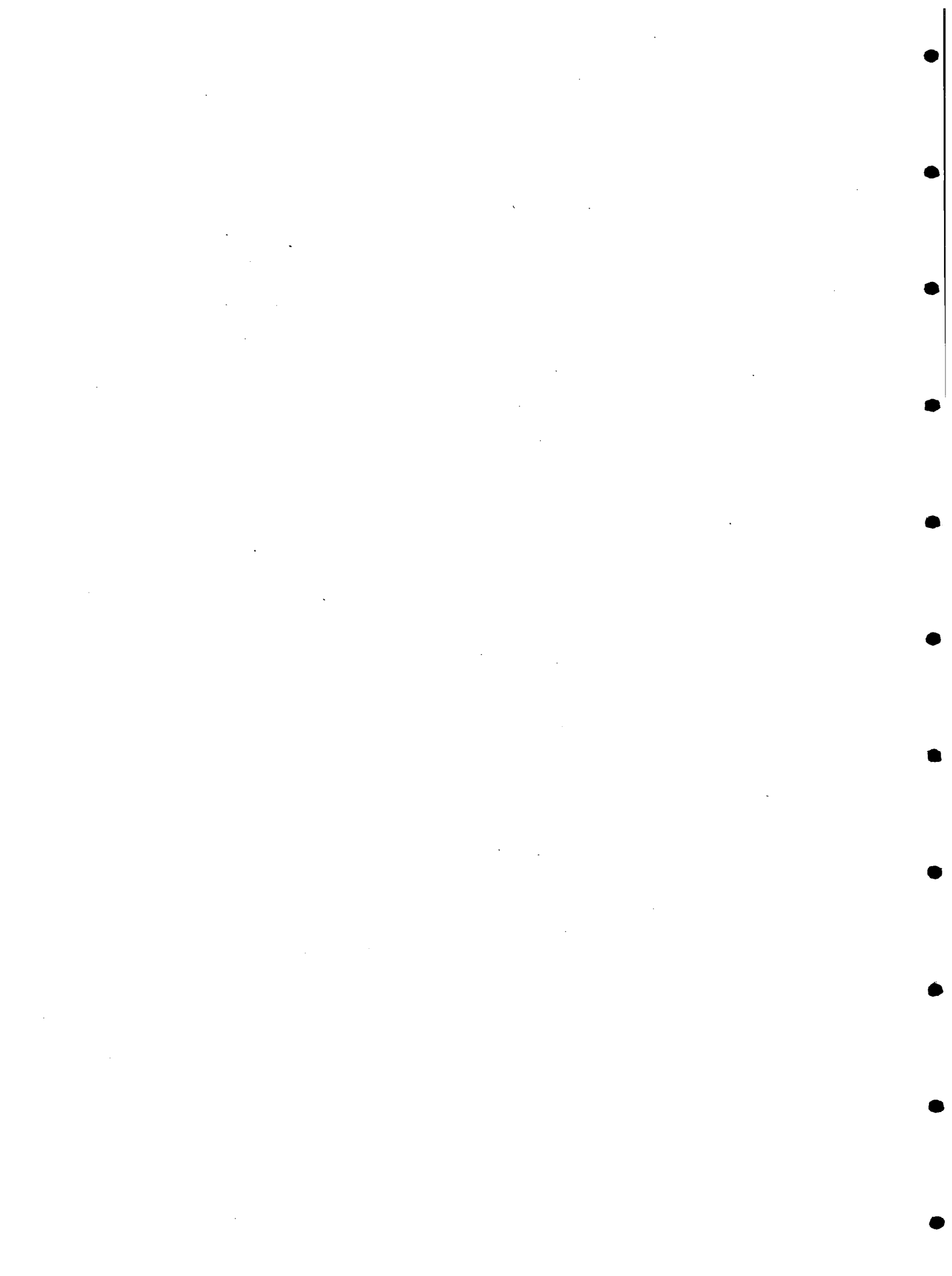
Wayne County Circuit Court

During the period encompassed by INSLAW°s site visits (1976-1977), the Wayne County Circuit Court used a master calendar* case assignment system and processed both civil and criminal (felony) cases. On an annual basis, about 58,000 civil and 4,000 criminal cases were filed with the Court, whose data processing operations (IBM 370/135) were not applied to case scheduling (only past actions were reflected in the data base).

The Court°s civil side, where INSLAW placed most of its scheduling-improvement emphasis, consisted of four principal case categories: contested divorces, uncontested divorces, paternity cases, and all other civil actions. Each week the number of cases awaiting trial increased by approximately 75 new contested divorce cases, 160 uncontested divorce cases, 20 paternity cases, 150 other civil cases, and 40 felony cases.

Usually, twenty-six judges were assigned to civil trials, five to criminal trials, one to arraignment (criminal), and one to administration (Chief Judge). As the need arose, civil judges were called upon to hear criminal cases.

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*Each court event associated with a given case is assigned to the first available judge regardless of who heard previous events of that case.
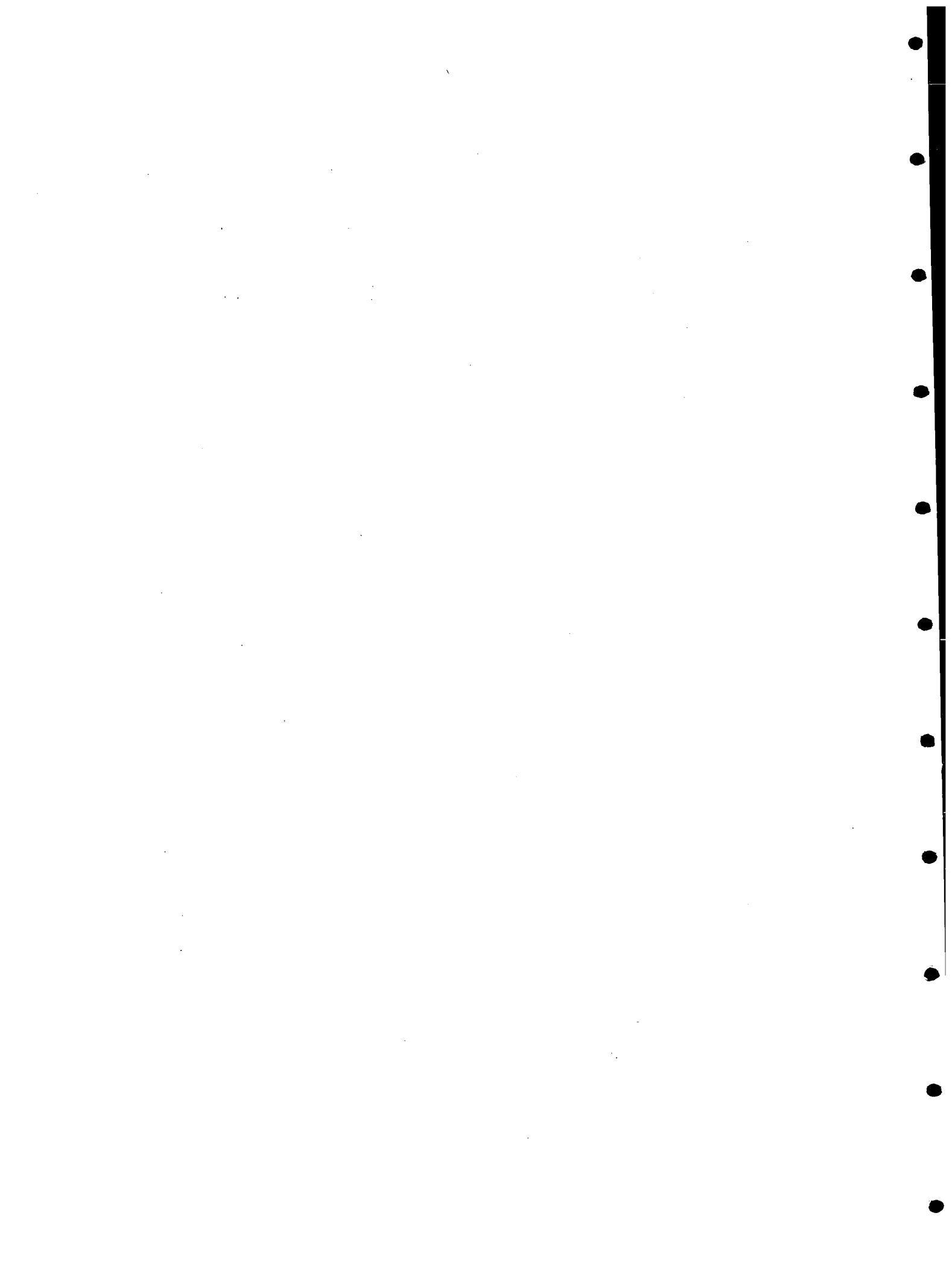
Overview of the scheduling function

The Assignment Clerk scheduled all civil and criminal cases for court hearings and trial. Civil and criminal cases came to the attention of the Assignment Clerk after they had been pro-cessed through the County Clerk's office and recorded on the Court's automated information system. Listing all cases in numerical order, printouts from this system were distributed to the Assignment Clerk's staff to annotate for civil case-tracking purposes. The status of criminal cases was tracked through index card files and calendar books. An alphabetical case suffix code was assigned to each docket number to identify case type.

Felonies were given scheduling priority. Cases were referred to the Assignment Clerk from the lower court (where the preliminary examination occurred) through the County Clerk's office. The arraignment date preset by the lower court was used by the Assignment Clerk unless a conflict existed, whereupon the appearance could be rescheduled. The County Clerk usually obtained a waiver of arraignment by the defendant and received an indication of the plea. Guilty pleas were taken by the arraignment judge. If those who pled not guilty continued to do so after an initial plea bargaining session with the prosecutor, the Assignment Clerk's office assigned a judge and scheduled a trial date. The County Clerk's office was notified of the assignment through issuance
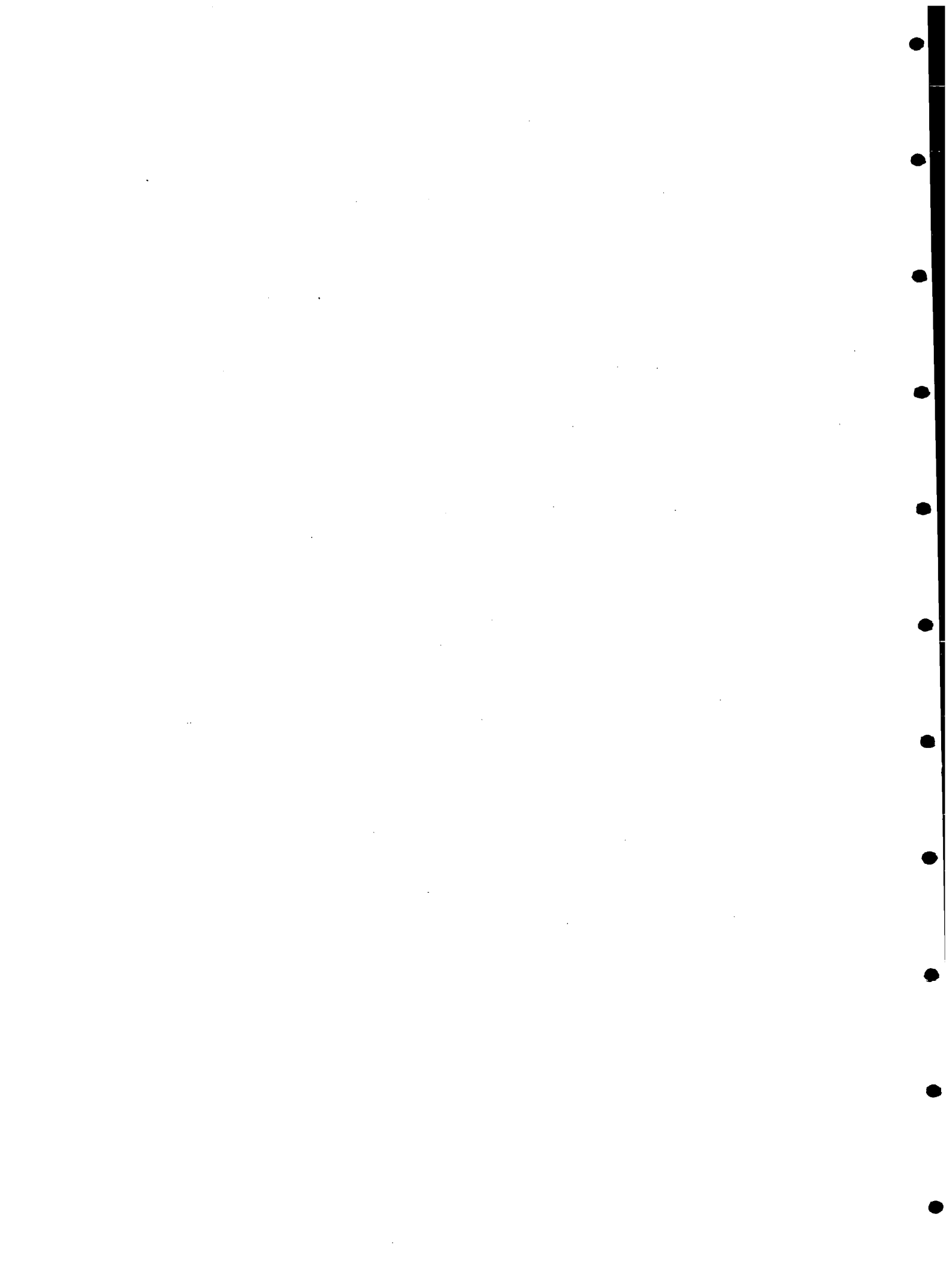
of a Certificate of Assignment (Exhibit V-1) by the Assignment Clerk.   Cases involving jailed defendants received scheduling priority.

Notice of trial was given verbally on the date of arraignment, when all participants were present.   A follow-up notice (Exhibit V-2) was prepared manually immediately following the pre-trial hearing and sent to defense attorney, defendant, prosecutor, and, when appropriate, to bondsmen.

Regarding the scheduling of civil cases, a judge was assigned to the case when the first pleading had been filed by the attorney for the plaintiff.   Judges were selected through a blind draw using shielded cards, which were prepared in advance and contained a random distribution of judges' names.   No other attempt was made to allocate the work load equally, such as by type of case.

An At-Issue Praecipe (Exhibit V-3) was submitted to the Clerk of Court by the defendant's attorney, who completed Side 1 and the top half of Side 2.   This Praecipe became the primary scheduling document and triggered all trial scheduling.

Civil trials were not scheduled in the same manner as trials for criminal cases, each of which was assigned a date as trial requests were received.   For civil cases, trial requests were accumulated; as each trial date arrived, a group of cases
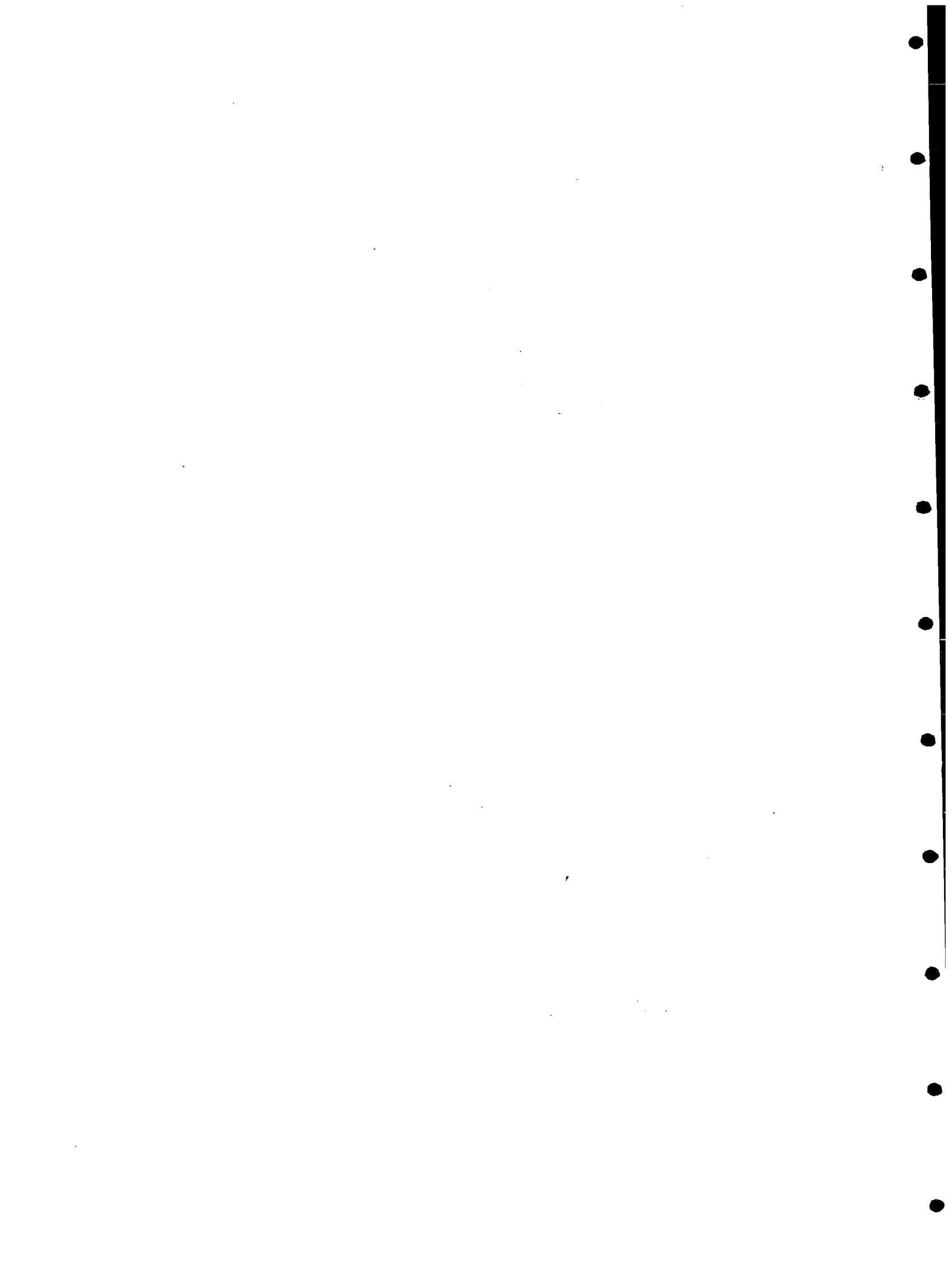
EXHIBIT V-1

CERTIFICATE OF ASSIGNMENT

THE CIRCUIT COURT FOR THE COUNTY OF WAYNE

CERTIFICATE OF ASSIGNMENT

Jury No. _____ Non-Jury No. _____

Criminal No. _____ Paternity No. _____

_____
vs.
_____ _____

_____

_____

ATTORNEYS _____

_____

_____

_____

TELEPHONED _____

TELEPHONED _____

To the Clerk of the Court:

Please take notice that under the direction of the Presiding Judge,

the above entitled cause has been assigned for trial and disposition to

Judge _____ ,

this date _____ .

Circuit Court Assignment clerk.

Reassign: ☐ No
                   ☐ Yes   From Judge _____

8-60

V-7
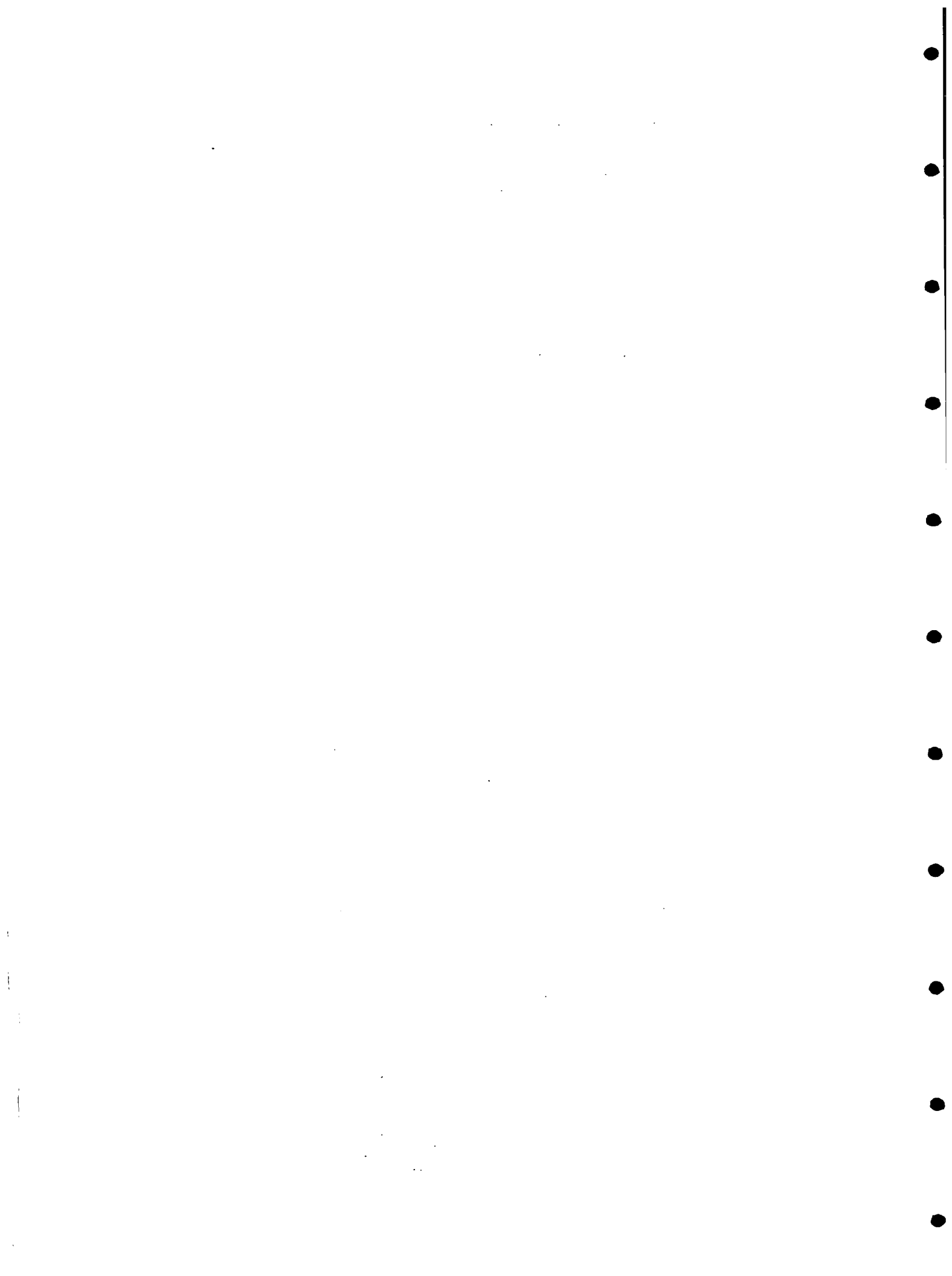
EXHIBIT V-2

NOTICE OF TRIAL--CRIMINAL CASES
STATE OF MICHIGAN

In The Circuit Court For The County of Wayne

NOTICE OF TRIAL

TO: _____

_____

_____

_____

_____

CRIMINAL ACTION NO. _____

THE PEOPLE

VS

The above captioned case is assigned for trial to

JUDGE_____ ON_____ _, 19____,

AT 9:00 A.M. IN ROOM_____of the CITY-COUNTY BUILDING, Detroit, Michigan.

Failure of defendant to be in court will result in forfeiture of bond.

No trial shall be adjourned, except by the Presiding Judge for good cause shown upon written motion, seasonably filed, by the party seeking the adjournment.

All preliminary motions will be heard by the Trial Judge on Fridays, upon the filing of a motion praecipe with the Assignment Clerk and proper notice to the opposing attorney.

Circuit Court Records indicate that_____

_____

_____

It shall be the obligation of anyone receiving this notice having more recent information as to the location of this defendant to immediately notify the Circuit Court Assignment Clerk c/ telephone number 224-5255

JAMES N. CANHAM
PRESIDING JUDGE
WAYNE COUNTY CIRCUIT COURT

B.90   V-8

EXHIBIT V-3
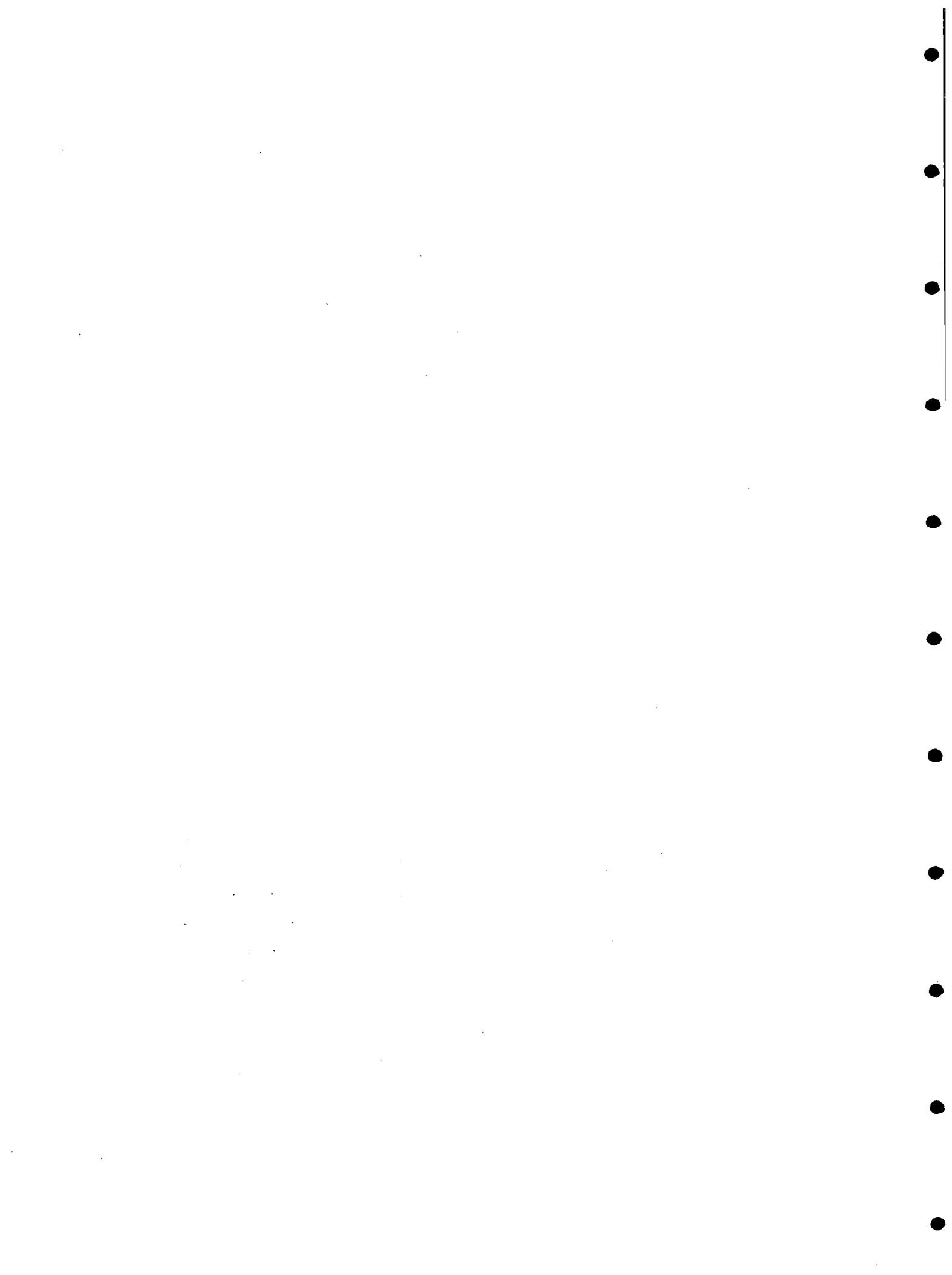
AT ISSUE PRAECIPE (Wayne County Circuit Court)

**AT ISSUE PRAECIPE
IN CIVIL ACTIONS**

Civil Action No. _____

Praecipe No. _____

_____ Plaintiff

VS.

_____ Defendant

To
Clerk of Wayne County
201 City-County Bldg.
Detroit, Michigan, 48226

This action is at issue as to all the parties and has
been assigned to JUDGE

Dated _____ 19 _____

_____ Atty. for Pltf.

_____ Address

_____ Telephone

_____ Atty. for Deft.

_____ Address

_____ Telephone

_____ Atty.

_____ Address

_____ Telephone

Fill all blanks. In case of appearance in pro per the
address of the party or parties must be given. If
more space is needed, attach rider.

Side 1

Civil Action No. _____

_____ Plaintiff

_____ Attorney

VS.

_____ Defendant

_____ Attorney

Indicate that which applies:

Auto Negligence _____

Other General Civil _____

Date of Service _____

(THIS SPACE FOR USE OF CLERK ONLY)

JURY _____ NON-JURY _____

Assigned to JUDGE _____

Notices Mailed _____
DATE

Assigned to Pre-Trial _____
(DATE)

Adj. to _____

Adj. to _____

Adj. to _____

_____

_____

_____

_____

_____

_____

Side 2
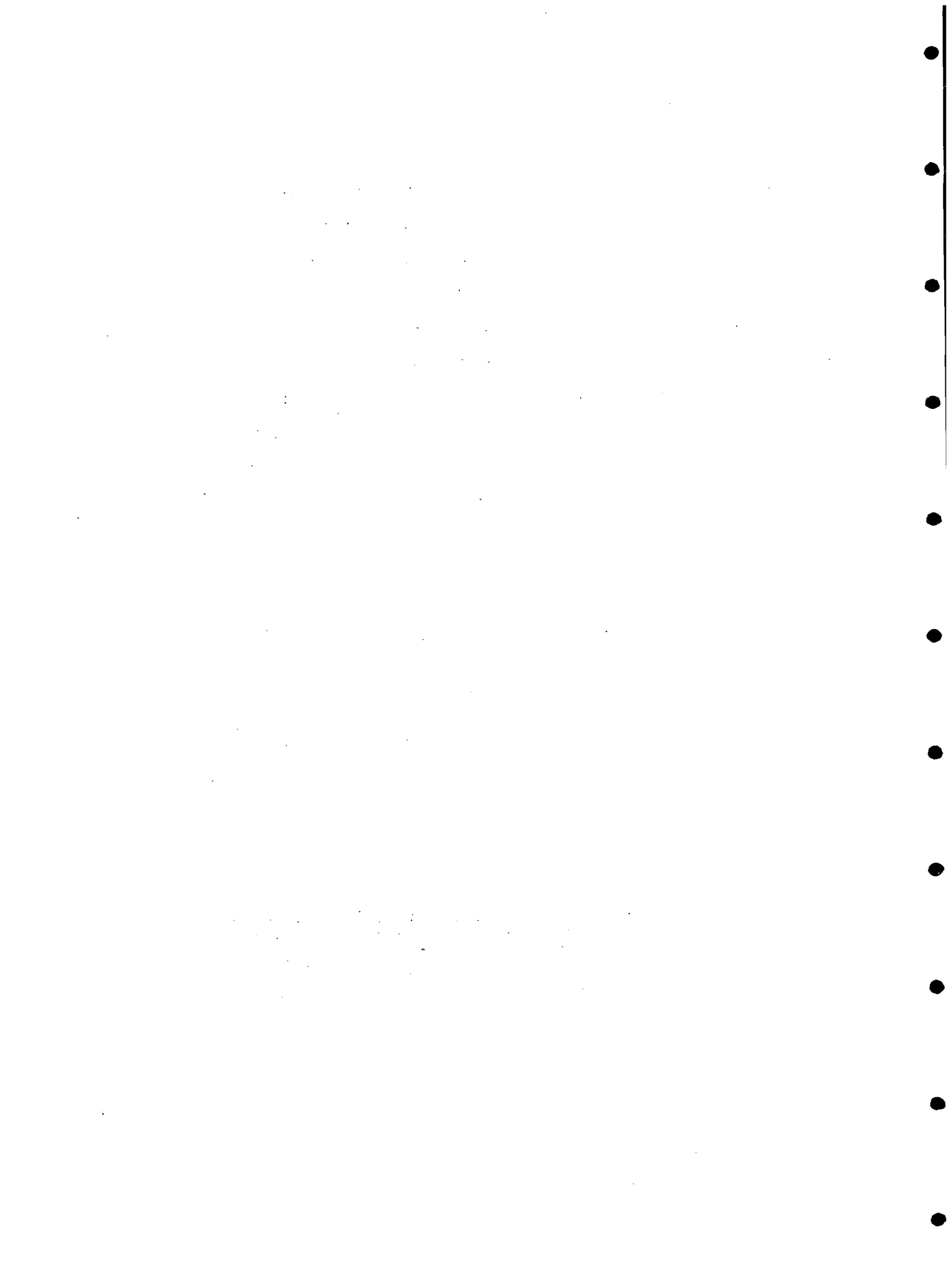
were selected, oldest first (by filing date). A pretrial notice (Exhibit V-4) was mailed, which constituted the first court action since filing. Usually, a 40 percent fallout occurred at the pretrial stage (cases settled or remanded to a lower court). A second notice (Exhibit V-5) was mailed confirming the trial date. A mandatory settlement conference on the afternoon preceding the trial date was held. About 35 to 45 percent of the remaining cases were settled at this stage. Of those not settled, each was heard if the judge to whom it had been assigned was available. If not, it might be placed on a "spinoff calendar"* for reassignment to another judge. Participants were notified of the new trial date by telephone.

In addition to scheduling cases for court hearings, the Assignment Clerk scheduled panels for cases that had been set for mediation either by order of the court or upon application by attorneys for plaintiff or defendant. The Assignment Clerk established the mediation panels, collected mediator fees, gathered evidence presented by all parties, prepared and mailed notices, and issued a report of panel findings.

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*Instead of adjourning cases to another trial date (about two months hence), the Assignment Clerk may place them in a spin-off listing, which means they will be heard in case-age order by the next available judge, usually within two weeks.

EXHIBIT V-4

CIVIL CASE PRETRIAL NOTICE--PAGE 1

IN THE CIRCUIT COURT FOR THE COUNTY OF WAYNE

_____ ATTORNEY FOR PLAINTIFF

_____ ATTORNEY FOR DEFENDANT

_____ PLAINTIFF

_____ DEFENDANT

ACTION NO._____ PRAECIPE NO._____

NOTICE TO ATTORNEYS: NO LATER THAN 10 DAYS AFTER RECEIPT OF THE PRE-TRIAL NOTICE, COUNSEL MUST SERVE A COPY OF THIS FORM COMPLETELY FILLED OUT, ON ALL ATTORNEYS OF RECORD.

THIS ACTION HAS BEEN SET FOR A PRE-TRIAL HEARING BEFORE THE HONORABLE

_____ ON _____ AT _____

ATTORNEYS MUST PRESENT THIS FORM, COMPLETELY FILLED OUT TO THE CLERK OF THE PRE-TRIAL JUDGE ON OR BEFORE THE DATE OF HEARING AND THEY MUST BE PREPARED TO COMPLY WITH ALL OF THE PROVISIONS OF MICHIGAN COURT RULE 301.

_____ WILL BE THE ATTORNEY PRESENTING THIS STATEMENT AND ATTENDING THE CONFERENCE AND WHO WILL REPRESENT_____

_____

1. FACTUAL STATEMENT OF PLAINTIFF'S CLAIMS OR DEFENDANT'S CLAIMS, INCLUDING COUNTER CLAIMS, CROSS CLAIMS AND AFFIRMATIVE DEFENSES. (If space on this form is insufficient, counsel may prepare additional sheets and attach to this form.) The statement of your claim should be stated in language which the trial court may utilize to succinctly relate to the jury your claim or theory of your case.

2. WHAT, BRIEFLY, ARE THE FACTUAL AND LEGAL ISSUES TO BE LITIGATED?

V-11

EXHIBIT V-5

NOTICE OF TRIAL--CIVIL CASES

STATE OF MICHIGAN

In the Circuit Court for the County of Wayne

NOTICE OF TRIAL

TO:_____

_____   Please notify the Assignment
                                            Clerk immediately of any attorneys
_____   of record or parties in pro per,
                                            whose names do not appear on this
_____   notice.

_____

CIVIL ACTION NO. _____ PRAECIPE NO. _____

_____
                              Plaintiff

            vs.

_____
                              Defendant

This action is set for trial, to be preceded
by a mandatory settlement conference before:

Judge _____ on _____, at
2:15 P.M.

Attorneys who will try the case and the litigants are required
to be present at this hearing. If the action is not settled,
trial will commence at 9 A.M. the following morning, unless
the judge to whom you are assigned is in trial with another
matter or otherwise unavailable. In that event, this action
will be returned to the "Spin-off" calendar and reassigned to
another courtroom.

All requests for adjournment must be presented in writing to
the Presiding Judge. No adjournment will be granted except
for good cause, the details of which must be specified in the
petition.

                              V-12   NICHOLAS SHAHEEN
                                           Assignment Clerk
                                           Wayne County Circuit Cou·

A more detailed account of the scheduling operations as they existed during INSLAW's site visits is found in Attachment C, Information Requirements of the Assignment Clerk's Office.

Work plan for the scheduling project

INSLAW and the Wayne County Circuit Court jointly developed a work plan outlining potential scheduling improvements (particularly for the Court's civil case load) and the tasks necessary to achieve them. Three tasks were recommended: (1) introduction of automated assistance into the Assignment Clerk's office, (2) analysis of court scheduling operations, and (3) development of a management component.

These are interdependent tasks. Task 2, analysis of court scheduling operations, yields the information needed for the development of a management component (Task 3), which, in turn, provides overall policies and scheduling parameters (how many cases to overset,* for example) that are to be reflected in the operation of the Assignment Clerk's office and the design of the automated information system (Task 1).

Attachment D, Work Plan for Wayne County Circuit Court, explains in detail the various steps associated with each of the three tasks. Therefore, the remaining paragraphs of this section

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*Oversetting is the process of scheduling more events than the court can handle on a given day. The presumption is that some events will fall out because of settlements, continuances, dismissals, and the like.
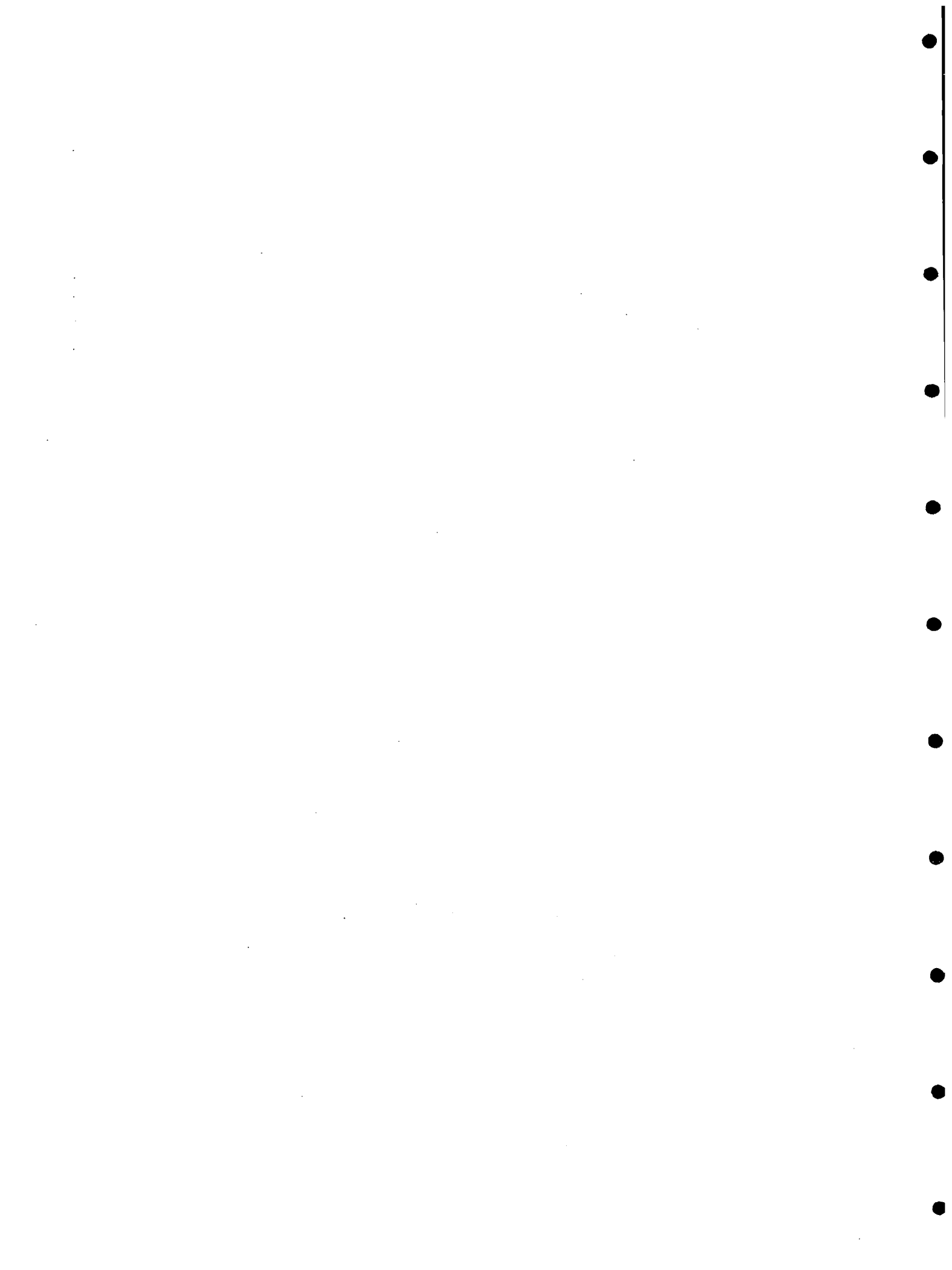
constitute only a summary of the work plan, while subsequent sections elaborate on aspects of the plan's implementation.

Analysis of court scheduling operations. This task's objective was to provide a quantitative description of scheduling-related operations and case flow. To achieve this, the following steps were completed:

- Determination of available automated and nonautomated data.

- Specification of data requirements for court analysis, including case flow, court activity, calendaring, and case load.

- Preparation of data in machine readable form.

- Analysis of data in order to describe court scheduling performance, processing times, and event durations.

- Consultation with Court personnel on the results of the data analysis.

Development of a management component. Given the results of the foregoing analysis, which revealed the resource or work load constraints of the Court, the first objective of the management-component task was for judges and the Court Administrator to answer this question: What should the court scheduling system accomplish? Once the Court's objectives are determined, a second question must be answered: Are the operations of the Court in keeping with those objectives? Such an evaluation requires the identification of appropriate measures of
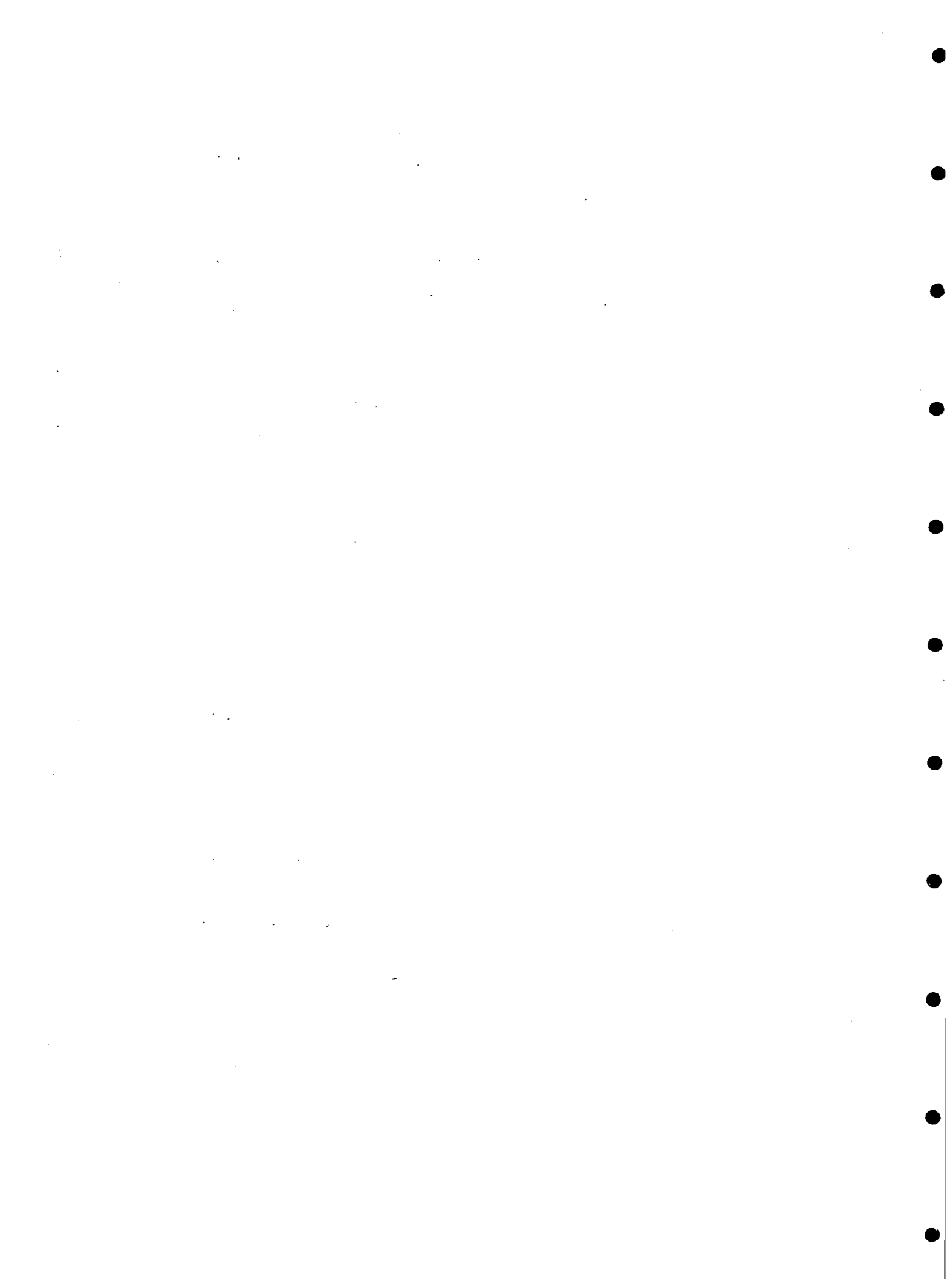
performance to serve as benchmarks for determining the extent to which objectives have been attained.

Since some objectives may conflict with others, the management-component task also involved development of a method to balance them through making appropriate trade-offs.

The task also called for the development of software for the production of management reports to be used by the Court to evaluate periodically the performance of the scheduling system.

Introduction of automated assistance into the Assignment Clerk's office. The goal of this task was to extend, at modest cost, the Court's existing data processing capability to the civil side of the Assignment Clerk's office in order to achieve automated generation of notices, collection of calendaring information, and capability to print out calendars, schedules, and statistical reports.

As noted in the work plan (Attachment D), the task involved Steps A through K. All except the last three were completed in the grant period. This was so because, in fall 1977, the implementation effort was unexpectedly interrupted by an order of the Judicial Data Center under the State Court Administrator of the Supreme Court, which mandated statewide standardization of case tracking. This forced the Wayne County Circuit Court to forego, at least temporarily, both the tracking system

on which the scheduling modifications were based and the grant
that would have supplied programming support. However, as the
result of subsequent discussions with state officials, the path
has been cleared for the Court to resume implementation of the
automated scheduling system. In addition, the Detroit Recorder's
Court has expressed interest in exploring the applicability of
the scheduling system.

More details on the data-analysis and management-component
tasks. Among the work products associated with implementation
of the work plan are three data analyses and an informal survey.
Of the three analyses, one represented a preliminary step toward
estimating the amount of work created for the Court depending on
case and disposition type. Another analysis compared the effec-
tiveness of two trial-scheduling policies, while a third ex-
plored the trade-offs involved among competing objectives. The
survey utilized a questionnaire to elicit from judges an indi-
cation of appropriate objectives and policies for the Court.

Case and disposition types related to processing time and
effort. As a preliminary step toward helping the Assignment
Clerk anticipate how much time to allocate to different types
of cases, INSLAW analyzed the disposition and event frequencies
of a sample of 10,000 cases drawn from the Court's automated

file in 1977. This sample contained 40 types of cases, which INSLAW collapsed into four principal categories: major civil, general civil, domestic, and criminal (see Exhibit V-6). The analysis focused on those noncriminal cases (7,915) for which disposition information was recorded. Disposition types were collapsed into five categories, as indicated by Exhibit V-7.

Exhibit V-8 indicates that, overall, about two-thirds of the cases were disposed of through dismissal or no-progress actions. Major civil cases were significantly more likely to be dismissed than those in the other two categories, while over 65 percent of the domestic cases were disposed of through judgments. Very few cases--less than 1 percent--received trial dispositions.

If the number of recorded court events (for example, motions, orders, motion praecipes[*]) can serve as an indicator of the amount of time and effort devoted to a case, Exhibit V-9 shows the relative amount of work created by the different case and disposition types.

As might be expected, cases actually going to trial had, on average, the highest number of events per case, followed closely by cases in which settlement was reached on, or close to, the day of trial. Though cases going to trial seemed to have required the greatest amount of work, they comprised well

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[*]Motions initialed by a written, attorney-prepared application.

EXHIBIT V-6

DISTRIBUTION OF A 10,000-CASE SAMPLE

(Wayne County Circuit Court, 1977)

Case Category	No. of Cases in Category	% of All Cases	Case Types
Major civil	2,501	25%	Auto negligence
General civil	4,001	40%	Contracts, housing, labor, personal injury, etc.
Domestic	1,501	15%	Divorce, support, paternity, etc.
Criminal	2,001	20%	Burglary, narcotics, larceny, etc.
Totals	10,004	100%	
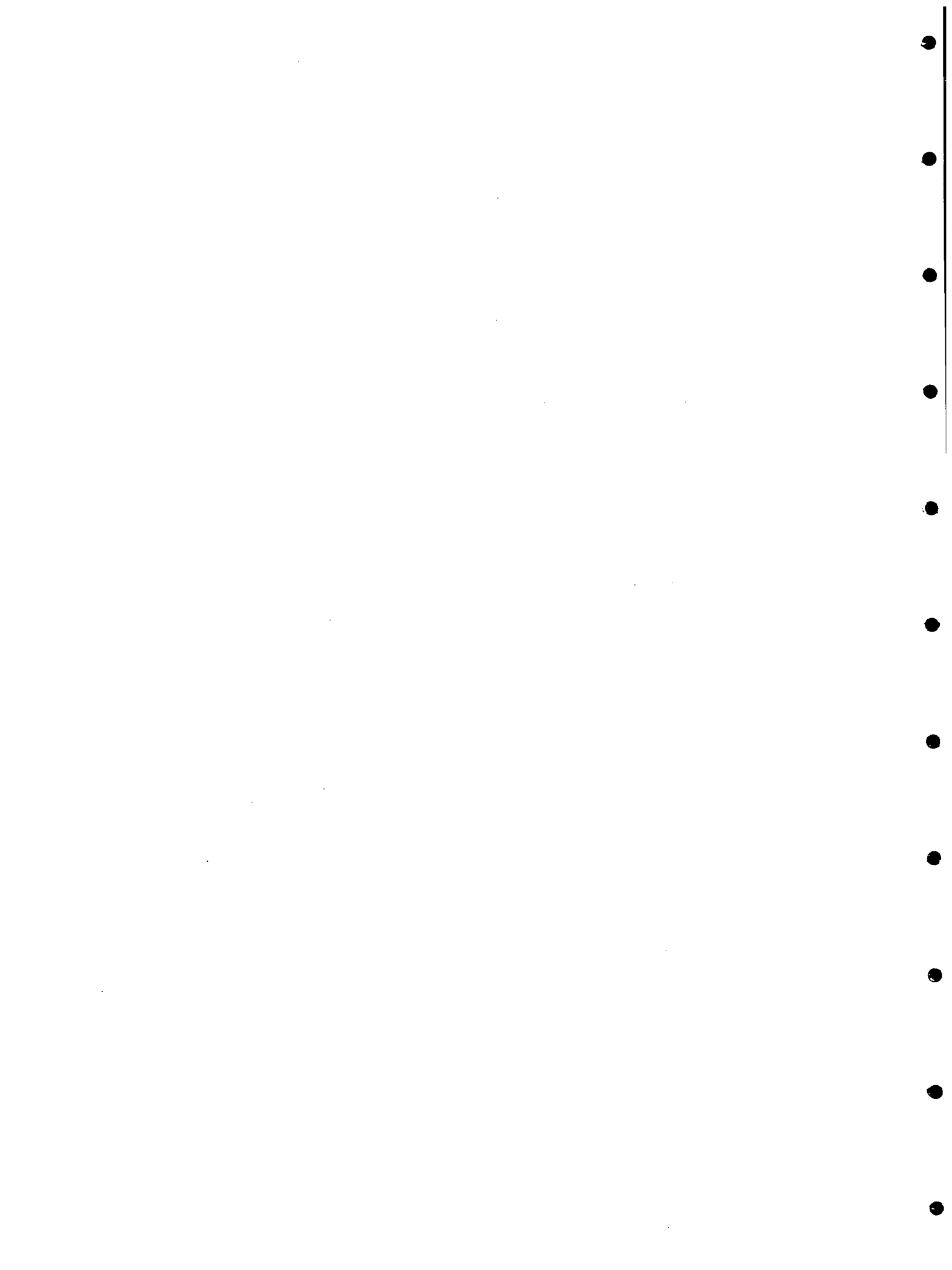
EXHIBIT V-7

MAJOR DISPOSITION CATEGORIES
(Wayne County Circuit Court, 1977)

Disposition Category	Disposition Types
1. No progress	No progress. Default judgments. Nolle process.
2. Judgments	Other judgments. Consent judgments. Other dispositions.
3. Dismissals	Stipulation for dismissal. Order of dismissal. Notice of discontinuance.
4. Remands	Remanded to lower court. Change of venue.
5. Trials	At issue. Trial convened.
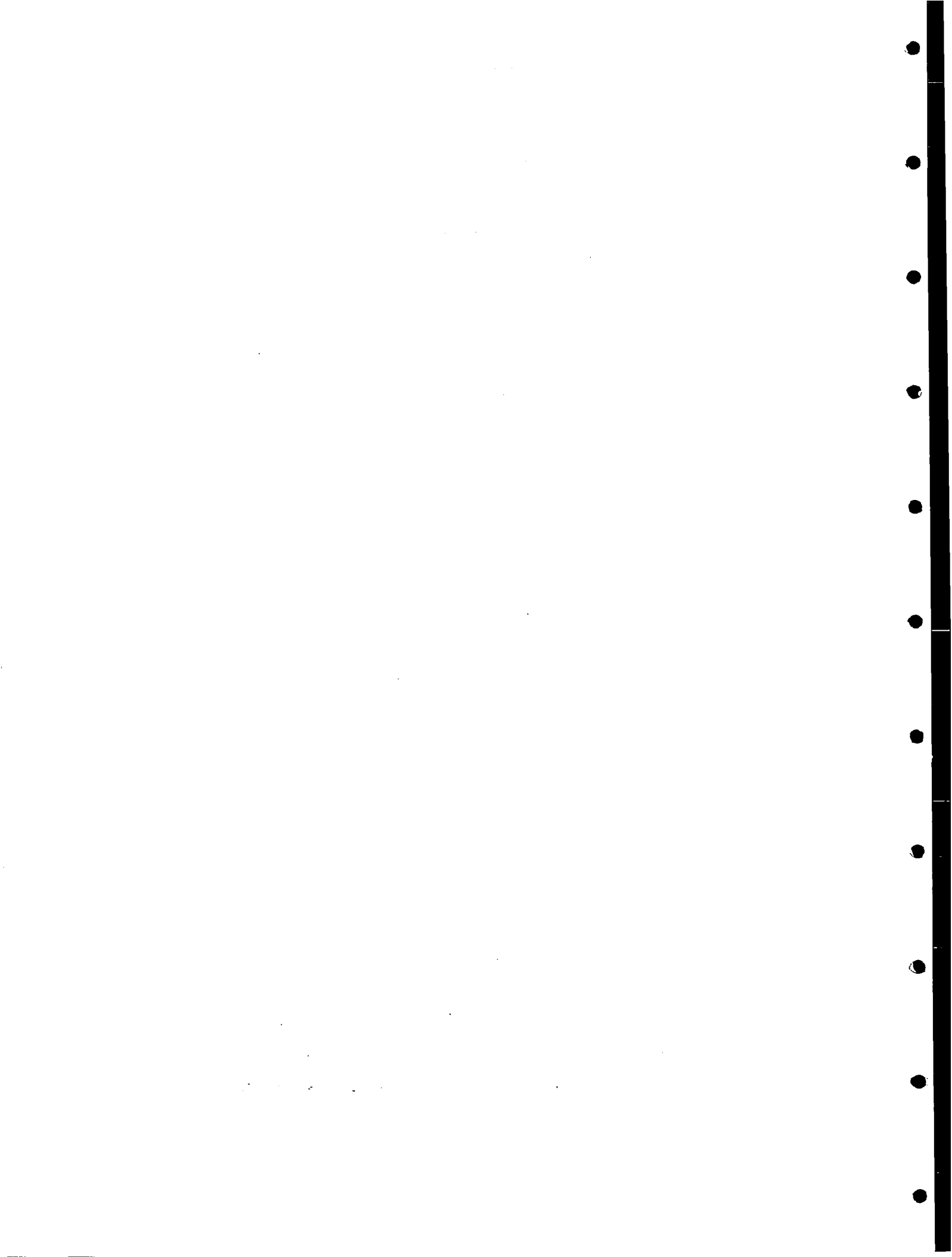
EXHIBIT V-8

DISPOSITIONS BY CASE TYPE
(Wayne County Circuit Court, 1977)

Dispositions	Major Civil (N = 2477)	General Civil (N = 3966)	Domestic (N = 1472)	Total (N = 7915)
No progress	21.9%	30.1%	17.1%	25.1%
Judgments	15.0	18.5	65.5	26.2
Dismissal	55.5	39.6	17.3	40.4
Remands	7.4	11.3	0.0	8.0
Trials	.2	.5	.1	.4

EXHIBIT V-9

AVERAGE NUMBER OF EVENTS PER CASE/DISPOSITION TYPE
(Wayne County Circuit Court, 1977)

Dispositions	Major Civil	General Civil	Domestic
No progress	.5	1.4	.4
Judgments	1.7	2.6	1.2
Dismissal	.9	1.5	.6
Remands	1.2	1.1	.0
Trials	3.2	5.5	2.0
Settled Pretrial*	2.3	4.1	1.0
Avg. no. events needed for disp.	1:63	2.7	0.87

*Calendared cases settled shortly before, or on the day of trial, in contrast to those cases settled by mutual consent prior to calendaring. "Settled pretrial" is included in the "judgments" disposition category of Exhibit V-8.
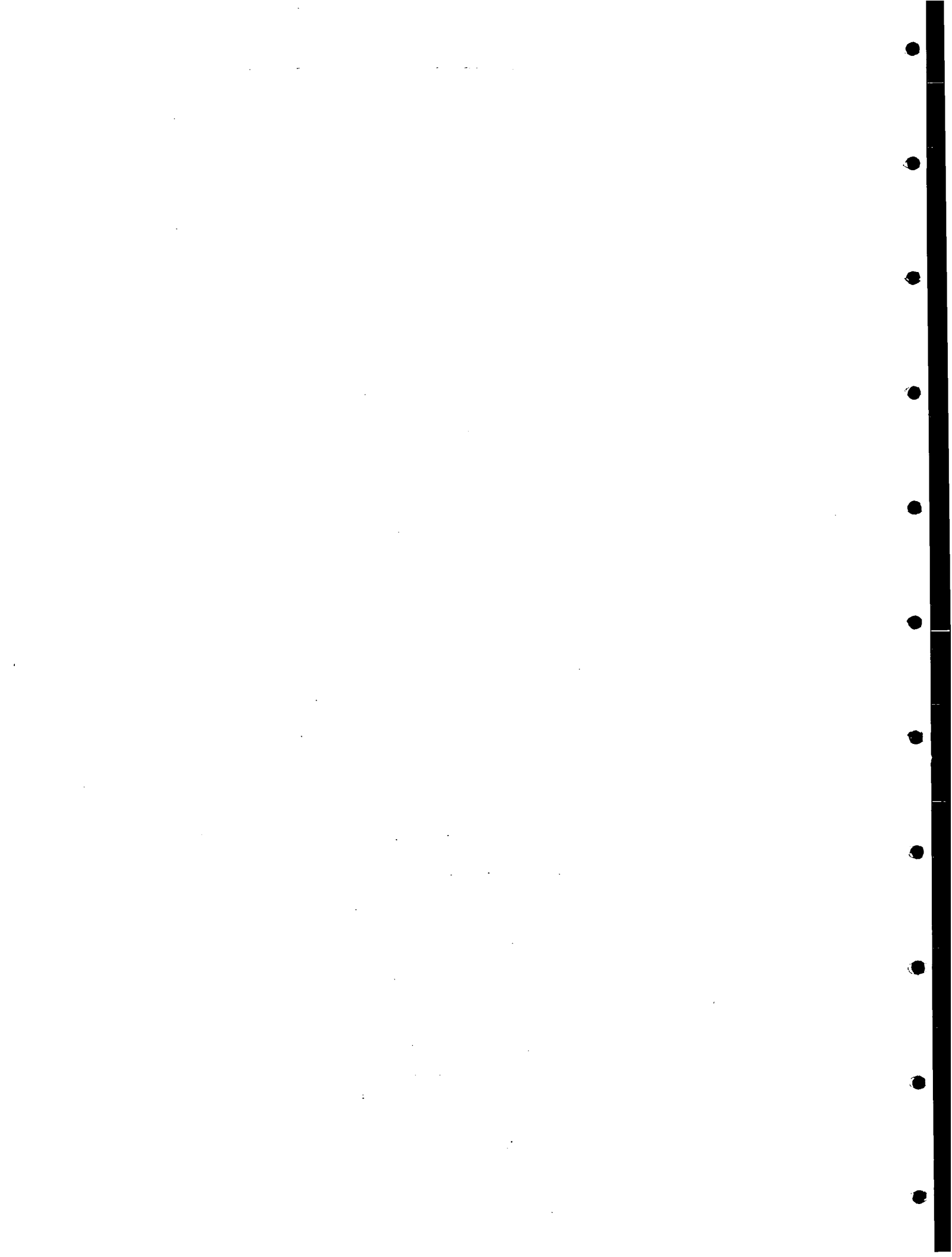
under 1 percent of the noncriminal case load. Schedulers might anticipate that, of calendared cases, those having required a relatively large number of court events are likely to eventually enter the trial stage.

As is evident from Exhibit V-9, general civil cases, on average, require significantly more events to reach a disposition than do cases in the other two categories. Despite the greater activity per case of general civil cases, the disposition patterns of the two types of civil cases are similar.*

Also of potential value to schedulers, the disposition patterns and activity rates of domestic cases (Exhibits V-8 and V-9) are considerably different from those of major and general civil cases. For example, whereas 17.1 percent of the combined total of major and general civil cases are settled through judgments, 65.5 percent of the domestic cases are disposed of in that manner, yet require about 50 percent fewer events, on average, to reach such a disposition.
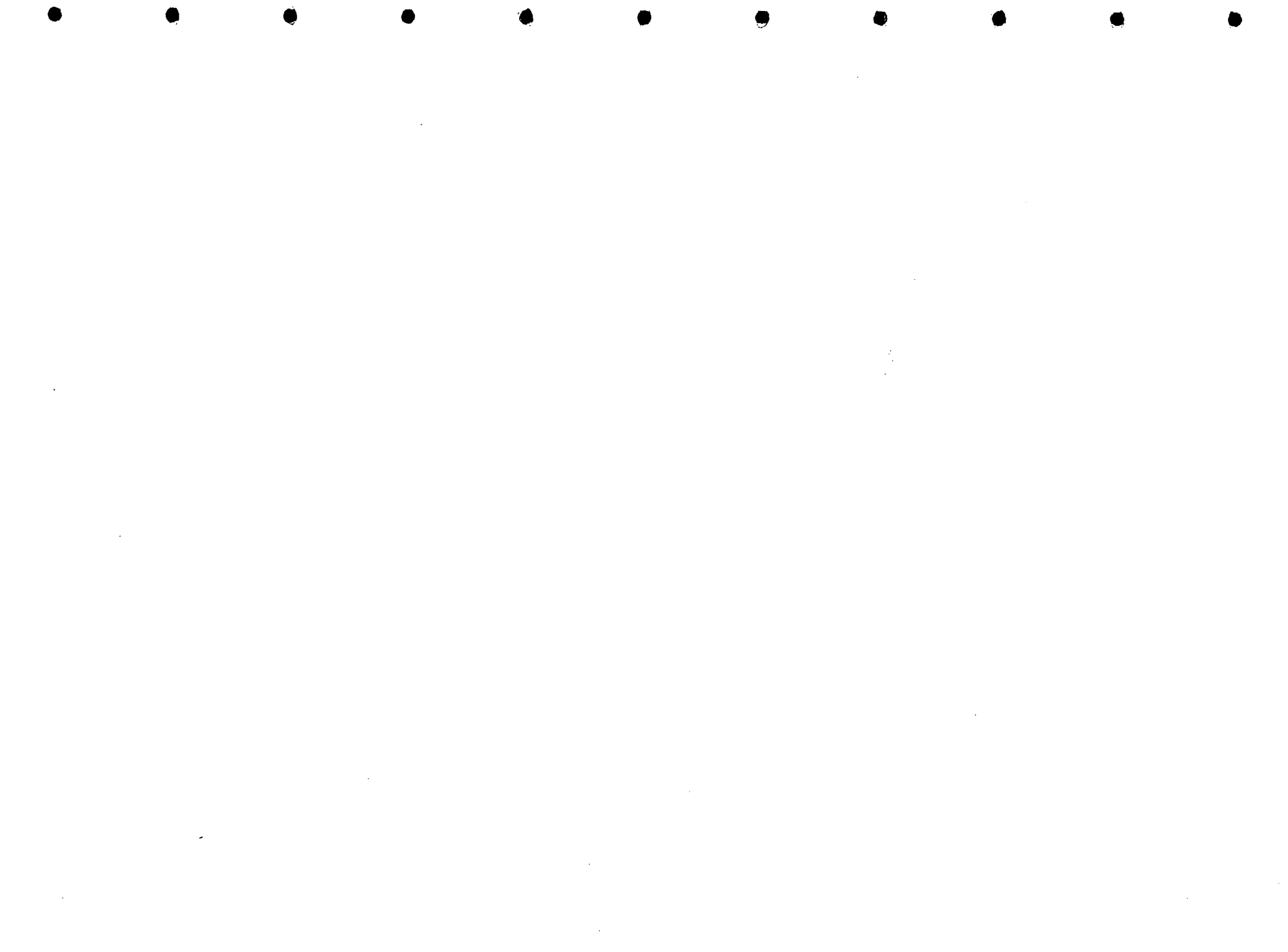
Exhibit V-10 presents events according to their type and frequency and relates them to case and disposition types (for instance, 95 percent of major civil cases with a no-progress disposition did not involve any motion praecipes). For all case types, orders are the most prevalent type of event. In

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*One would have anticipated that the average number of court events for remanded cases would have been lower than the activity level associated with any other disposition category since the Court could determine remands as soon as cases are filed.

EVENT TYPES AND FREQUENCIES ASSOCIATED WITH VARIOUS CASE/TYPE DISPOSITION COMBINATIONS

(Wayne County Circuit Court, 1977)

EXHIBIT V-10

Event Type & Frequency	Major Civil: Dispositions					General Civil Dispositions					Domestic Dispositions				
Motion Praecipe	No Prog-ress	Judg-ments	Dis-missal	Remands	Trial	No Prog-ress	Judg-ments	Dis-missal	Remands	Trials	Prog-ress	Judg-ments	Dis-missal	Remands	Trial
0	95.0%	87.4%	89.9%	81.4%	75.0%	89.1%	83.9%	83.3%	84.4%	89.5%	100%	100%	100%	0.0%	100%
1	4.8	8.9	7.7	15.3	25.0	8.7	11.3	13.3	11.4	5.3					
2	.2	3.2	2.0	1.6		1.6	3.3	2.7	3.3	5.3					
3		.3	.3	.5		.4	1.0	.4	.2						
4		.3	.1	.5		.2	.3	.1	.7						
Motions															
0	88.0%	71.0%	81.7%	67.2%	25.0%	68.2%	42.9%	71.6%	71.9%	26.3%	96.0%	99.4%	100%	0.0%	50.0%
1	8.5	17.7	12.0	24.0	50.0	21.0	22.7	15.7	19.0	26.3	4.0	.6			50.0
2	2.2	7.8	4.2	6.6	25.0	7.0	10.9	7.4	3.8	26.3					
3	1.1	2.4	1.3	1.6		2.4	6.7	2.7	2.9	15.8					
4		.3	.7	.5		.7	3.0	1.1	1.8	5.3					
Orders															
0	84.3%	47.3%	71.8%	71.6%	0.0%	61.6%	43.0%	60.7%	78.3%	10.5%	76.1%	5.97%	74.5%	0.0%	100%
1	12.7	30.9	21.0	18.0	25.0	22.6	29.4	14.7	14.1	15.8	19.9	75.8	23.5		
2	2.0	15.3	5.3	7.1	50.0	9.7	14.8	8.5	5.1	21.1	3.2	16.5	.8		
3	.7	4.0	1.5	2.7	25.0	3.2	5.5	3.6	.4	15.8	.8	1.5	.4		
4	.2	1.9	.1	.5	0.0	1.5	2.6	1.1	1.6	10.5		.2	.4		
Other															
0	97.4%	81.5%	93.6%	93.4%	50.0%	90.1%	86.6%	89.3%	94.9%	63.2%	96.4%	94.0%	80.0%	0.0%	0.0%
k	2.4	16.7	5.8	4.9	50.0	9.3	10.8	9.4	4.5	31.6	3.6	5.0	16.5		50.0
2	.2	1.3	.6	1.6		.6	1.8	1.1	.7	0.0		.9	3.1		50.0
3		.5	.1				.7	.2		5.3			.0		
4													.4		

the two categories of civil cases, orders are followed in descending frequency by motions, motion praecipes, and all other court events.

Notwithstanding the greater average number of events required for the disposition of general civil cases (Exhibit V-9), Exhibit V-10 does not indicate a significant difference in the types of events occurring during the life of general and major civil cases.

Exhibit V-11 displays the same data as in Exhibit V-10 except that event types have been collapsed to yield the total number of events associated with any given case type/disposition combination. Again, those cases with trial dispositions generate substantially more court events per case than those disposed of earlier in the processing cycle.

Finally, Exhibit V-12 collapses the data one step further by displaying only the major case types and total number of events. The greater number of events associated with general civil cases is quite apparent, as is the different pattern of events for domestic cases.

By probing further the relationships between event types and frequencies on the one hand and case and disposition types on the other, schedulers can be expected to gain valuable insights regarding the time and resources required by the Court's case load.

EXHIBIT V-11

EVENT FREQUENCY ASSOCIATED WITH CASE/DISPOSITION TYPES
(Wayne County Circuit Court, 1977)

Major Civil

Number of Events	No Progress	Judgments	Dismissal	Remand	Trial
0	74.9	35.5	63.9	49.2.	17.0
1	14.4	21.0	13.1	19.7	0.0
2	6.3	18.3	1..2	14.2	17.0
3	2.0	10.5	4.5	8.2	0.0
4	.9	6.2	2.9	3.3	50.0
5	1.1	4.0	2.0	2.7	17.0
6	.0	2.2	.9	1.1	
7	.?	.8	.4	.5	

General Civil

	No Progress	Judgments	Dismissal	Remand	Trial
0	49.5	25.7	49.4	58.9	10.0
1	16.8	22.8	16.1	17.0	5.0
2	12.0	15.8	11.0	8.7	5.0
3	9.7	11.3	8.7	5.1	15.0
4	3.7	6.7	6.4	3.1	15.0
5	3.2	3.6	2.5	3.6	5.0
6	1.8	4.4	1.8	1.3	0.0
7	1.4	1.9	1.3	.7	5.0

Domestic

	No Progress	Judgments	Dismissal	Remand	Trial
0	71.3	5.3 .	66.3	0.0	0.0
1	23.1	75.2	19.6		50.0
2	4.0	14.2	11.4		0.0
3	1.2	3.8	1.6		50.0
4	.4	.6	.4		
5		.5	.4		
6		.2			
7					

EXHIBIT V-12

EVENT FREQUENCY ASSOCIATED WITH CASE TYPE
(Wayne County Circuit Court, 1977)

Number of Events	Major Civil	General Civil	Domestic
0	60.8	45.9	27.1
1	15.0	17.6	56.6
2	11.4	11.9	12.0
3	5.3	9.1	3.1
4	3.1	5.3	.5
5	2.2	3.0	.4
6	.9	2.2	.1
7	.4	1.4	.0
8	.2	1.2	.0
9	.2	.6	.0
10	.1	.5	.1

<u>Comparison of two trial-scheduling policies</u>. Available
data enabled INSLAW to analyze the effectiveness of two trial-
scheduling policies followed by the Wayne County Circuit Court.
The analysis demonstrated that a policy change can improve pro-
ductivity and do so without an increase in Court response (per-
sonnel, time, equipment, etc.).

Data on court activity (noncriminal cases) covering two
periods were analyzed. During Period 1--October 6, 1975 through
April 3, 1976--the Court devoted four full days (Monday through
Thursday) to trials, while Fridays were reserved for motions
and other activities. During Period 2--April 4, 1976 through
October 5, 1976--trial-scheduling policy was altered so that a
half-day of trials occurred on each week day (Monday through
Friday) for a total of five half-days of trials per week; motions
and other activities consumed the balance of the Court's time.

In order to depict Court activity during a normal day, data
from holidays and weekends were excluded. Exhibit V-13 indicates
that approximately the same number of work days were available
in each period. Also, on average, judge availability for any
given work day was very similar during the two periods (see
column 2 of Exhibit V-14).

Twelve categories of Court activity were examined during
Periods 1 and 2. A period-to-period comparison of those activi-
ties is shown in Exhibit V-14, which reveals several apparent
trends.

EXHIBIT V-13

NUMBER OF WORK DAYS AVAILABLE
(Wayne County Circuit Court)

Day	Period 1	Period 2
Monday	24	23
Tuesday	25	26
Wednesday	24	25
Thursday	22	25
Friday	25	25
Total	120	124

DAILY AVERAGES FOR EVENTS AND JUDGES: PERIOD 1 VERSUS PERIOD 2
(Wayne County Circuit Court)--Four Full-Day Trial Schedule
EXHIBIT V-14

	No. of Judges	No Progress	Dismissal	Default Judgment	Consent Judgment	Other Judgment	Remand	Trial Start	Settled Pretrial	Jury Empanelled	Verdicts	Trial in Progress	Rein-Statement Ord.
MONDAY	29.29	41.63	48.08	17.38	5.50	20.04	5.38	7.79	12.67	2.17	4.63	8.92	2.88
TUESDAY	28.24	15.12	45.56	17.52	5.40	14.96	4.52	5.32	12.64	1.60	4.88	9.12	2.84
WEDNESDAY	29.33	6.21	40.58	24.29	5.21	13.63	3.21	5.67	13.00	1.63	5.33	9.67	3.33
THURSDAY	28.50	1.00	38.23	25.18	6.32	17.09	5.27	4.59	12.91	1.27	5.82	8.91	2.59
FRIDAY	29.20	0.52	48.32	130.64	5.68	92.48	15.40	0.12	3.04	0.04	0.88	0.48	6.64
AVG/DAY	28.92	13.01	44.30	43.82	5.61	32.25	6.83	4.67	10.77	1.33	4.26	7.35	3.69
MONDAY	29.52	1.87	44.91	30.57	6.52	19.00	5.52	8.26	26.17	2.43	5.04	9.78	1.70
TUESDAY	29.96	0.35	47.69	55.58	5.15	35.81	27.12	6.50	11.42	2.23	5.08	10.35	2.62
WEDNESDAY	29.52	0.16	44.00	21.24	7.64	18.16	6.24	6.00	15.18	1.76	5.76	10.52	1.84
THURSDAY	30.00	0.00	41.32	98.36	4.20	68.40	12.44	6.24	14.00	1.76	5.36	10.44	2.60
FRIDAY	30.22	0.13	38.13	18.87	4.83	22.09	7.43	3.83	13.30	1.57	5.39	8.87	2.74
AVG/DAY	29.84	0.48	43.30	45.67	5.66	33.11	12.05	6.17	15.92	1.95	5.33	10.02	2.30
CHANGE (Period 1 to Period 2)	+3%	-96%	-2%	+4%	+1%	+3%	+76%	+32%	+48%	+46%	+25%	+36%	-38%
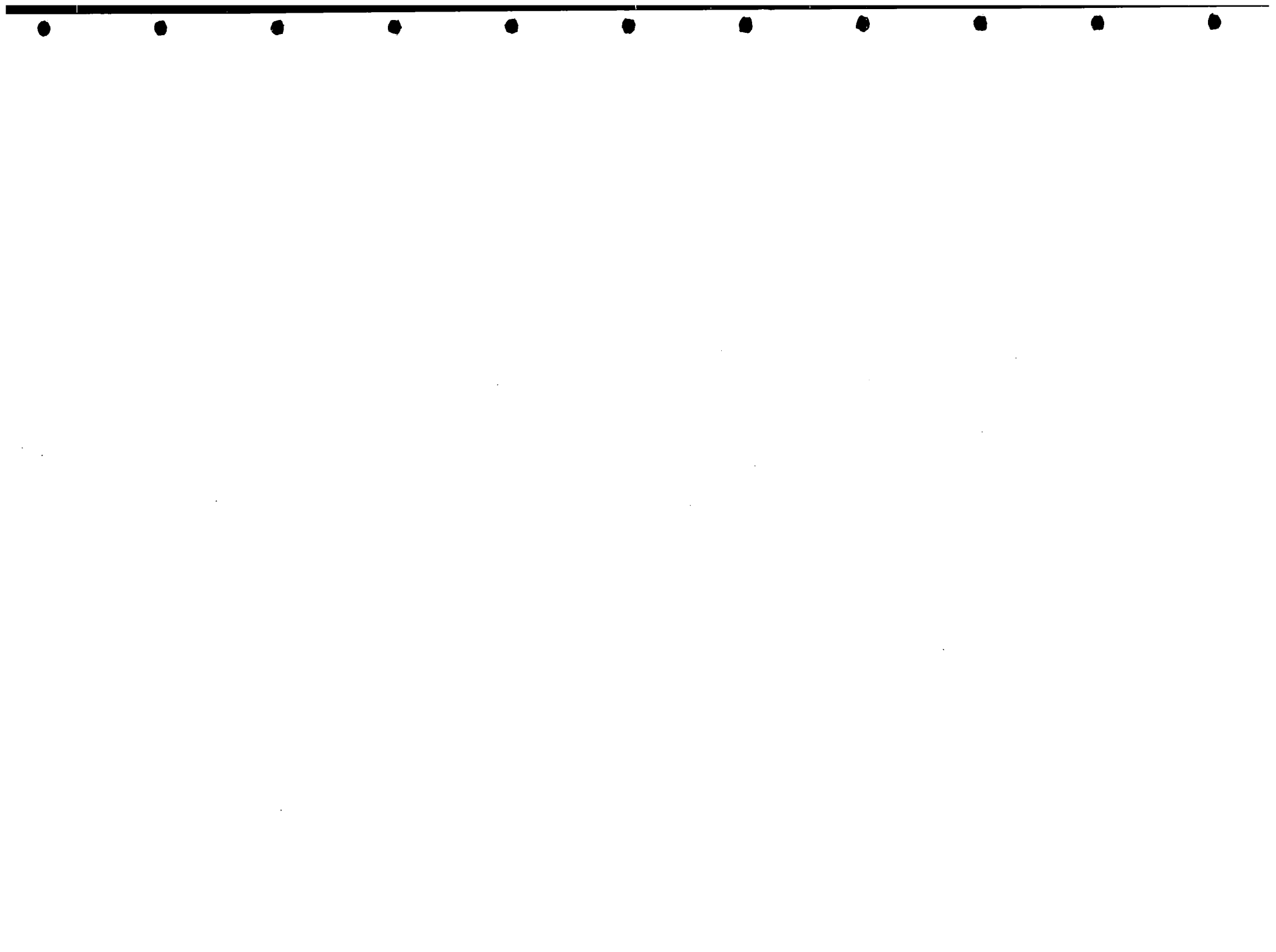
Period-to-period changes in the first six activity categories (no-progress, dismissal, default judgment, consent judgment, other judgment, and remand) shown by Exhibit V-14 are especially pronounced for no-progress (-96 percent) and remand (+76 percent). Regarding the former, reasons accounting for the decrease are not apparent. However, the change in trial scheduling policy is not likely to have been solely responsible. As for the sharp increase in remands, this is most likely unrelated to the new trial-scheduling policy. The same can be said for dismissals and the various judgments, which are not directly trial-related.

However, changes in the level of several other activities do seem to reflect the shift from the four full-day trial schedule (Period 1) to the five half-day trial policy (Period 2).

For example, despite the 1.5-day loss in trial time per week, Period 2 shows a 32 percent increase in the number of trial starts per day and a more uniform rate of trial activity throughout the week. Apparently the duration and other characteristics of the trials were more easily and efficiently accommodated by the half-day format.

In addition to the average f 1.5 extra trials started each day, an additional 5.15 cases (a 48 percent increase) were settled pretrial during Period 2. One might theorize that since a common strategy is for litigants to defer settlements until
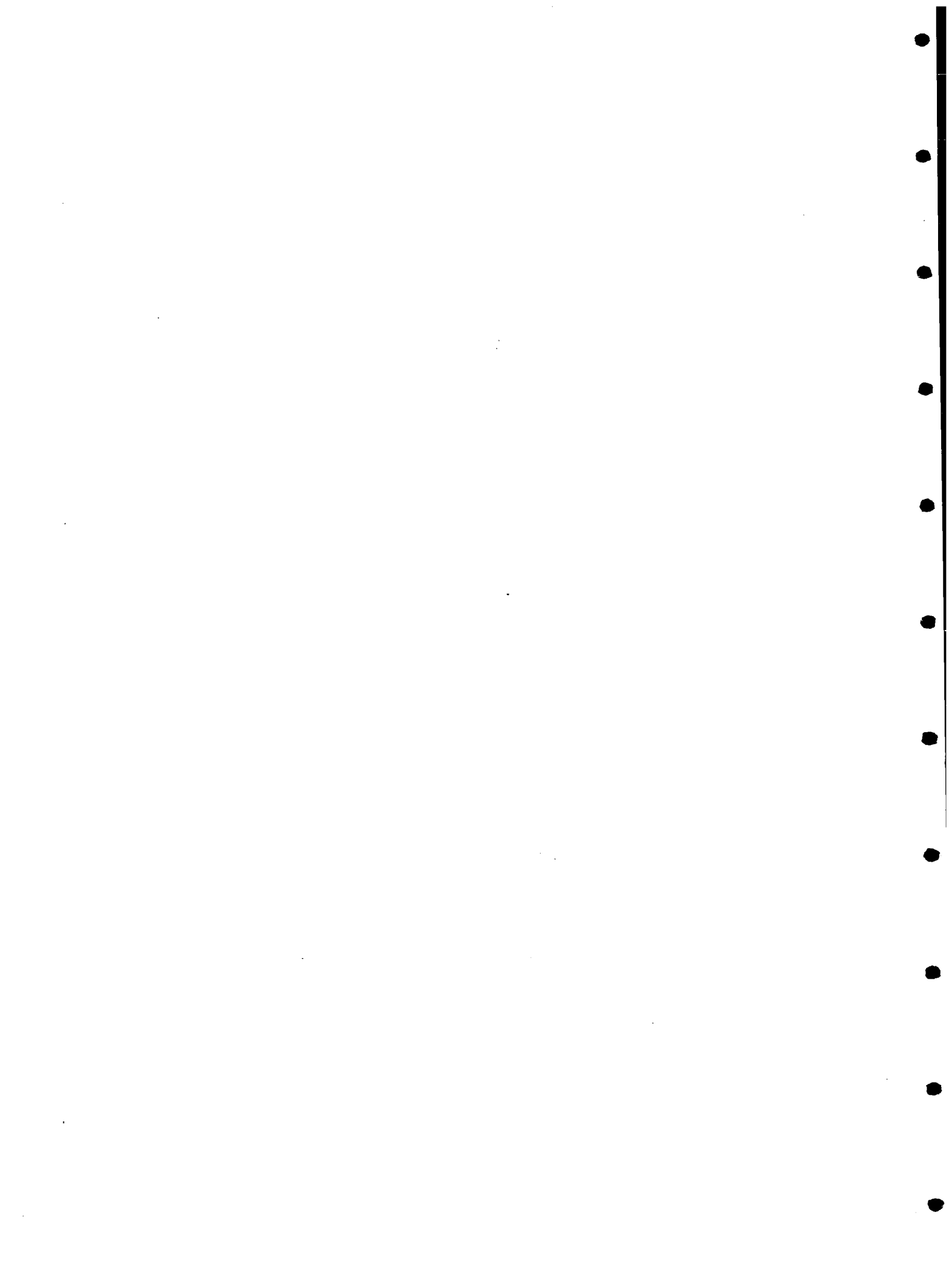
the trial date, the increased trial-start rate in Period 2 triggered a corresponding acceleration in the number of cases resolved prior to trial.

The increased number of juries impaneled, verdicts, and trials in progress were natural outcomes of more trial starts during Period 2.

Therefore, a mere reorganization of the Court's work day yielded substantial gains in trial-related productivity.

The trade-off between court productivity and participant convenience. As mentioned earlier during the discussion about the management component, court objectives may well conflict and involve trade-offs. Data manually collected from the Assignment Clerk's office reveals some of the trade-offs associated with the objectives of increasing court productivity and improving litigant convenience.

Pertaining to the Wayne County Circuit Court's Civil Division during the first ten months of 1976, the collected data included, for each court day, the number of cases scheduled for trial, trials started, adjournments granted, and cases settled before trial.

Data indicate that as the number of cases scheduled for trial increased so also did trial starts. However, an upper bound appears to exist regarding the number of trials that can
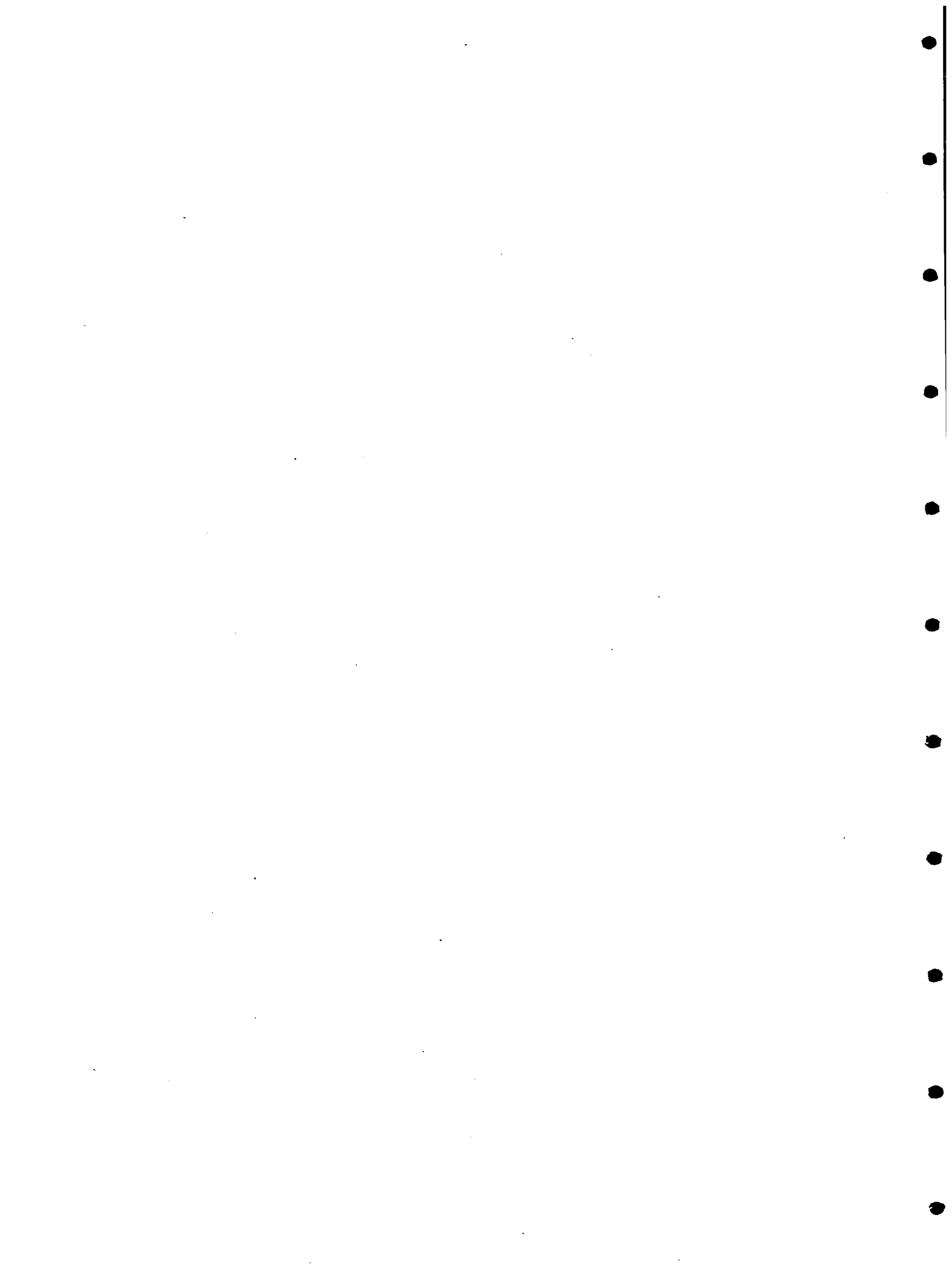
be commenced. (This upper bound--six or seven trials-is probably more closely related to judge availability than to the number of cases scheduled.) Findings suggest that a drop in trial efficiency may occur as a large number of cases are scheduled; that is, as more time is required for administrative matters, less time is available for trial.

A direct relationship also existed between cases scheduled and settlements prior to trial: the more cases scheduled, the greater the number of pretrial settlements. The clear and strong relationship between the two variables supports the theory that threat of trial induces settlements (the cases settled would probably have had the same outcome, but at a later point in time). This increases the disposition rate and reduces the backlog of the Court without requiring additional resources.

However, increasing the number of cases scheduled in the absence of enlarging the Court's capacity cannot be achieved without cost. As the size of the calendar increases and the Court's capacity remains the same, only some of the additional cases are absorbed through increased settlements and trial starts. Cases scheduled but not reached or settled must be adjourned. This requires case participants to reappear on yet another date for the opportunity to have their case adjudicated. The increase in adjournments as calendar size increases is startling. If 20 cases are scheduled for trial each day, about 7 will have to be rescheduled; if 30, 16 adjournments; if 50, as many as 35 will have to be adjourned.
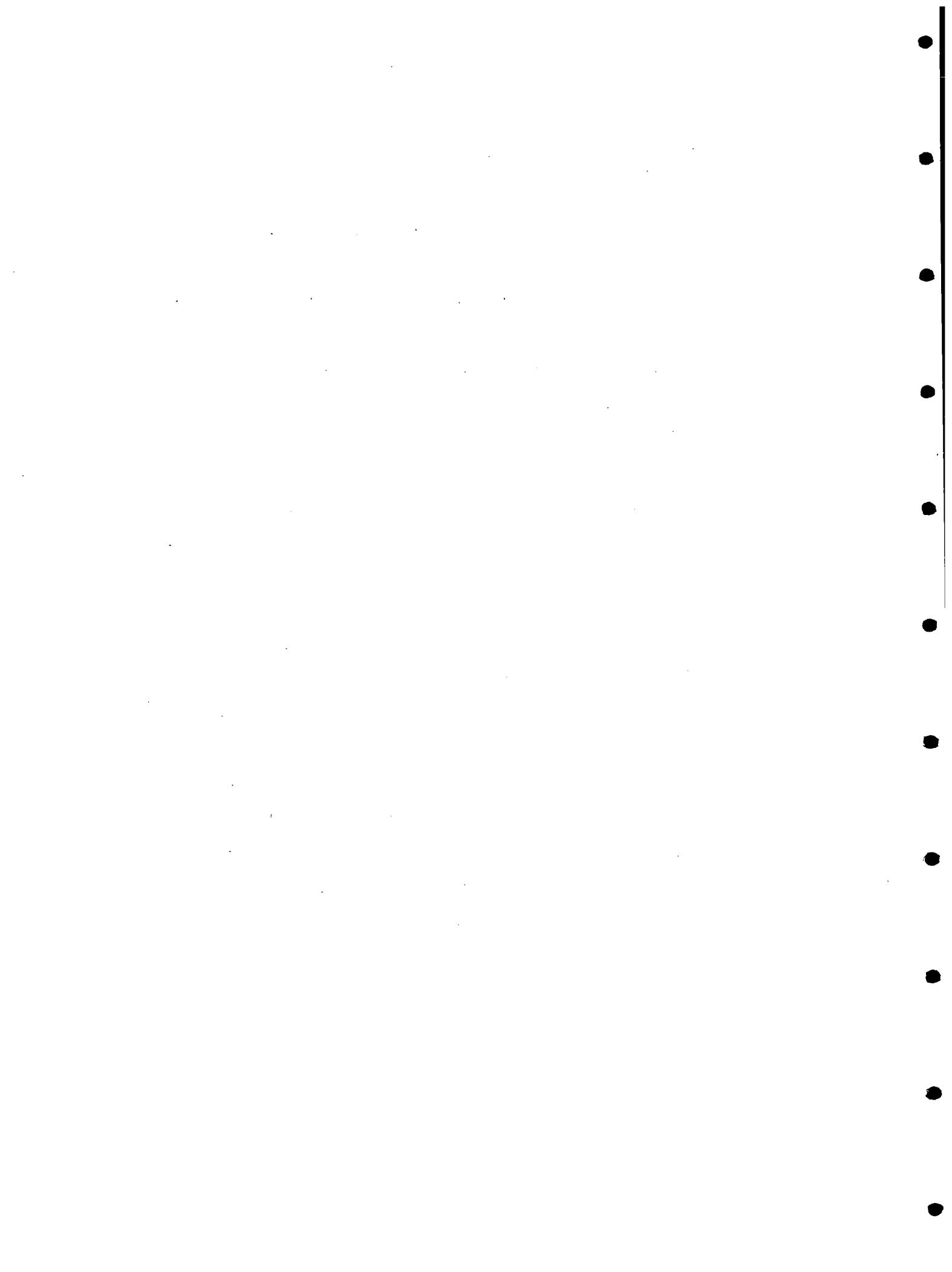
Therefore, determination of the calendar's size requires clear articulation of the Court's objectives regarding productivity (disposition rates) and litigant convenience. Exhibit V-15 illustrates some of the trade-offs involved. For instance, if the Court wishes to maximize dispositions and is unconcerned about litigant convenience, the optimal calendar size would be at Point C, where 48 cases are scheduled for trial, of which an average of 6 will be tried, 11 settled, and 31 continued. Alternatively, the Court may want to minimize participant inconvenience, in which case optimal calendaring policy would be at Point A, where relatively few dispositions occur but also very few continuances.

Neither of the two extremes, represented by Points A and C, seems to be a reasonable approach. A more acceptable policy would lie somewhere between A and C. For example, at Point B the trade-off between the goals of productivity and litigant convenience is a balanced one: schedule about 26 cases, of which 5 are expected to be tried, 7 settled, and 13 continued. A reasonable calendaring policy appears to be in the range of 20 to 40 cases scheduled per day, depending on the nature of Court's trade-off between the competing goals of productivity and participant convenience.

<u>Survey of the Court's judiciary</u>. As indicated by the pre-
ceding analysis, a court is well advised to weigh and measure
the relative advantages of various scheduling possibilities in
light of its own needs and objectives. As an initial attempt
to stimulate judicial involvement in setting objectives, making
trade-offs, and establishing performance measures, in early
1977 INSLAW distributed a brief questionnaire to several judges
of the Wayne County Circuit Court (see Attachment E).

From filing to initial court action, a civil case age of
10 months (median) was regarded as desirable by the judges,
while a median elapsed time of 13.5 months should trigger
special court action to expedite the case. At the time of
survey, a civil case required about three years to receive
initial court action from filing. From initial court action
to disposition, a median elapsed time of five months was
deemed desirable, with special court action advisable after
six months according to respondents. The then current time
from initial court action to disposition was about 12 weeks.

Most judges preferred assignment to a mixture of cases
in contrast to specializing in one type of case (criminal,
civil, domestic relations). Court practice at the time was
to assign some civil judges to criminal cases as the need
arose.

When asked what the scheduling system should strive to achieve in the trade-off between judge productivity and convenience of attorneys, litigants, and witnesses, not one judge emphasized participant convenience; five believed the objectives of productivity and convenience should be balanced; eleven advocated that the scheduling system give priority to (though not maximize) judge productivity; four would put maximum emphasis on the productivity goal. In terms of the trade-offs depicted by Exhibit V-15, respondents appeared to favor a scheduling policy about midway between Points B and C for civil cases, or about 38 cases per day. At the time of the survey, approximately 30 civil cases were scheduled daily.

Respondents unanimously supported the proposition that the Court should implement a well-structured continuance policy. A strong majority would designate the Chief Judge as the one to grant continuances. No one felt that this function should be delegated to the Assignment Clerk's office, which currently accounted for approximately 40 percent of all continuances.
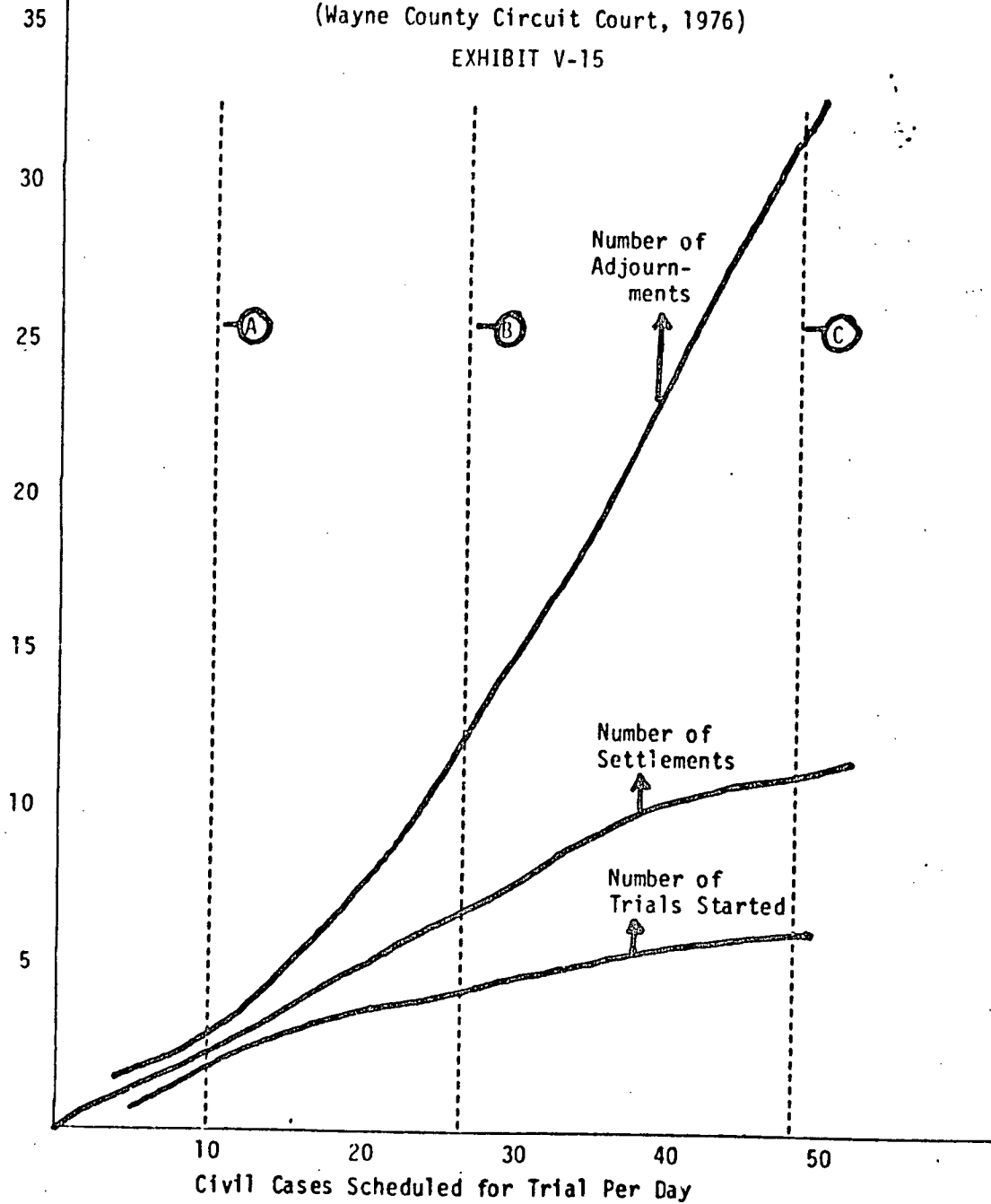
The following performance measures by which to determine the effectiveness of the court scheduling system were regarded as useful: average case age at disposition, age of pending cases, backlog increase or decrease, number of cases disposed of, and ratio of cases tried (disposed of) to cases scheduled.
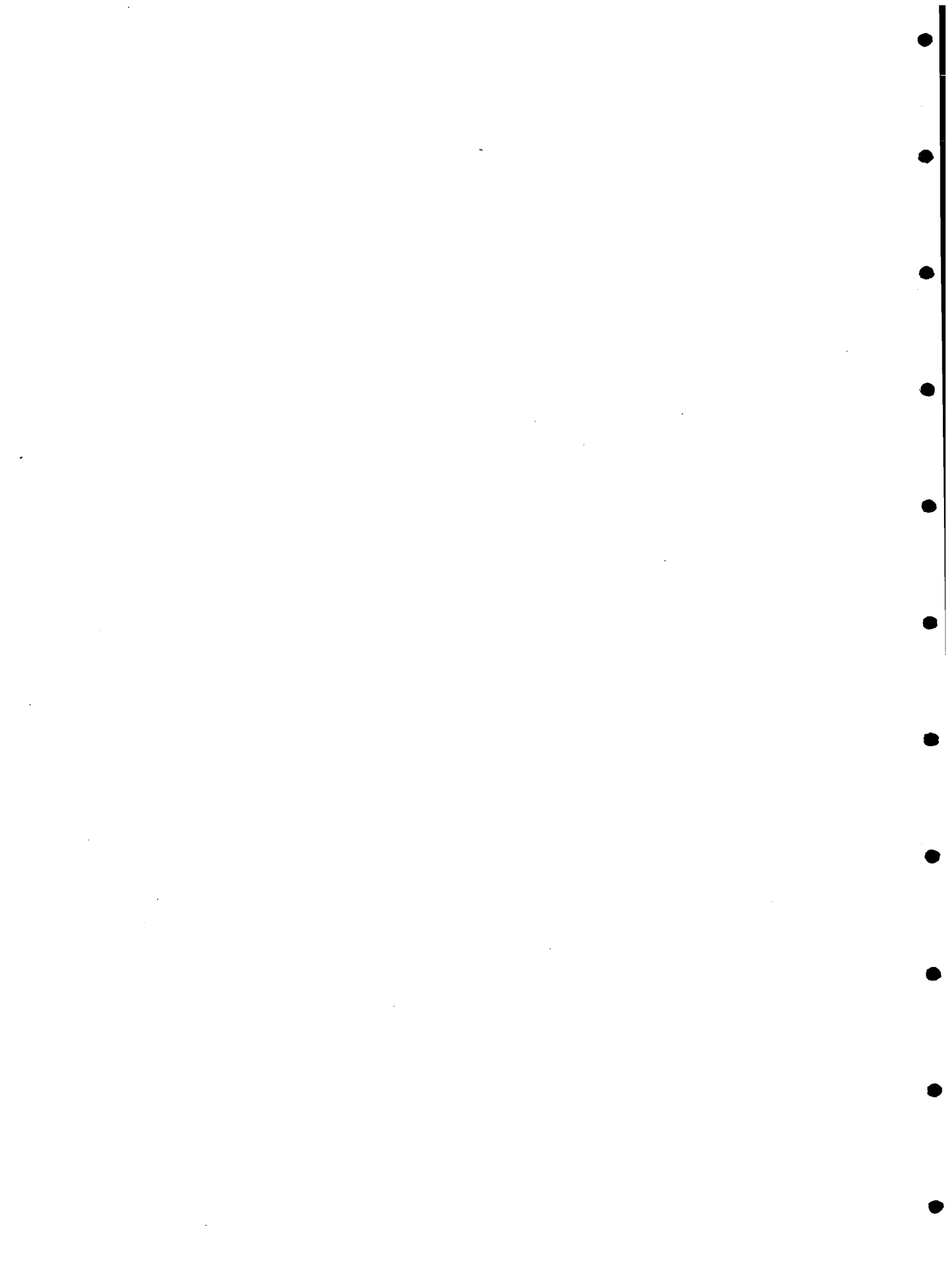
RELATIONSHIP OF CASES SCHEDULED TO TRIAL STARTS, SETTLEMENTS, ADJOURNMENTS
(Wayne County Circuit Court, 1976)
EXHIBIT V-15

Adjournments,
Settlements,
Trials Started

Number of Adjourn-ments

Number of Settlements

Number of Trials Started

Civil Cases Scheduled for Trial Per Day

V-35
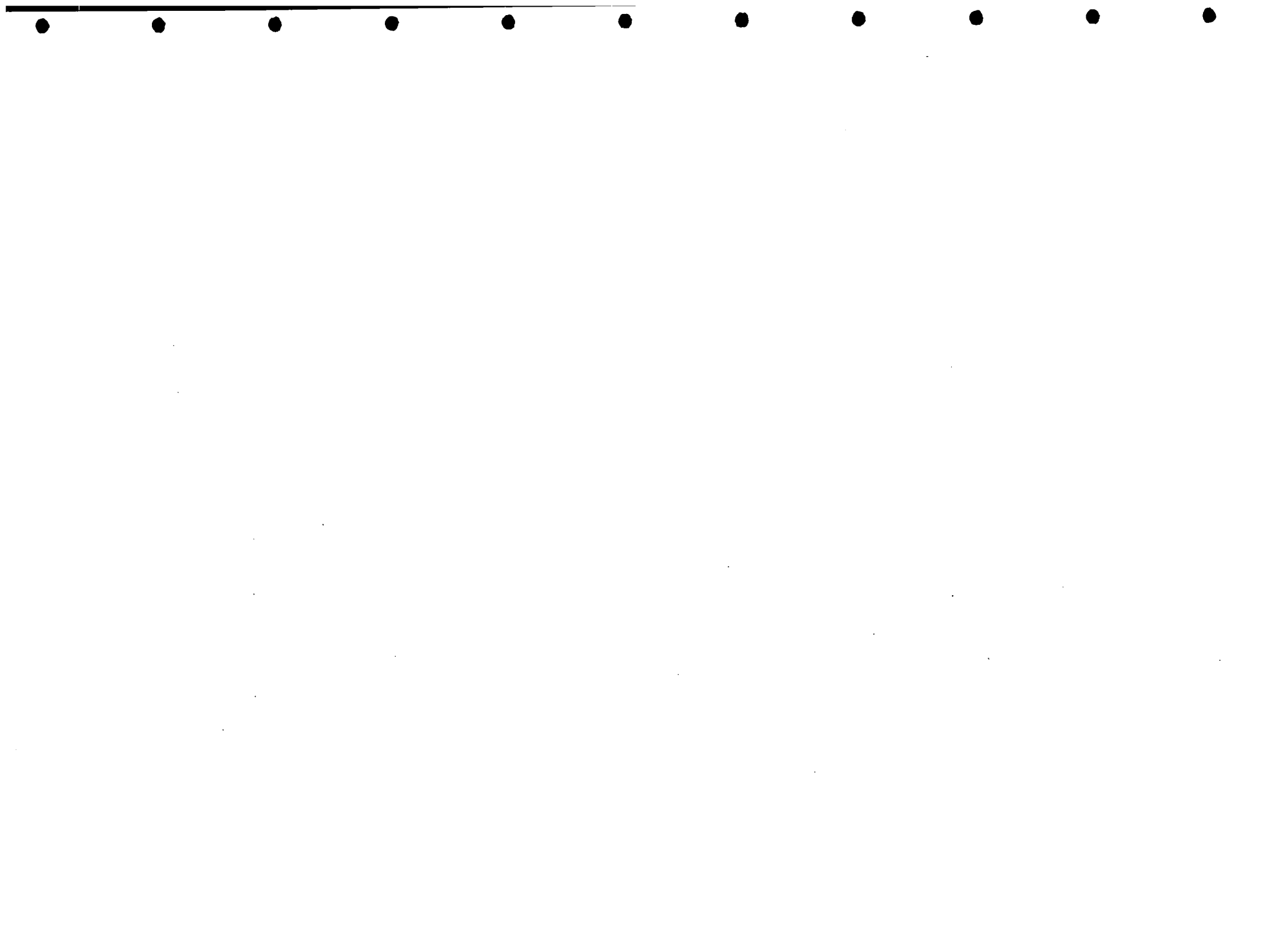
A majority of respondents agreed that every trial judge should be assigned the same number of cases and should spend the same amount of time on the bench (regardless of the number of cases disposed of).

Most judges polled did not like the five half-day trial-scheduling policy and felt that it was not as effective as scheduling trials four full days weekly. This is surprising in view of the data analysis, discussed earlier, indicating that scheduling trials during five half-day periods throughout the work week markedly improved the Court's productivity (trial starts up by 32 percent; settlements up 48 percent), an outcome that the scheduling system should strive to achieve, according to survey responses to a question noted earlier. Thus day-to-day general perceptions of a scheduling system do not necessarily agree with the empirical evidence, which underscores the importance of conducting data or systems analyses prior to setting policies.

More details on implementing the data-support component

As noted earlier, the work plan (Attachment D) divided the task of extending the Court's automated data processing capability to the civil side of the Assignment Clerk's office into Steps A through K:

A. Document the requirements of the Assignment Office. This involved defining information requirements, time constraints, and other operating conditions (see Attachment C).
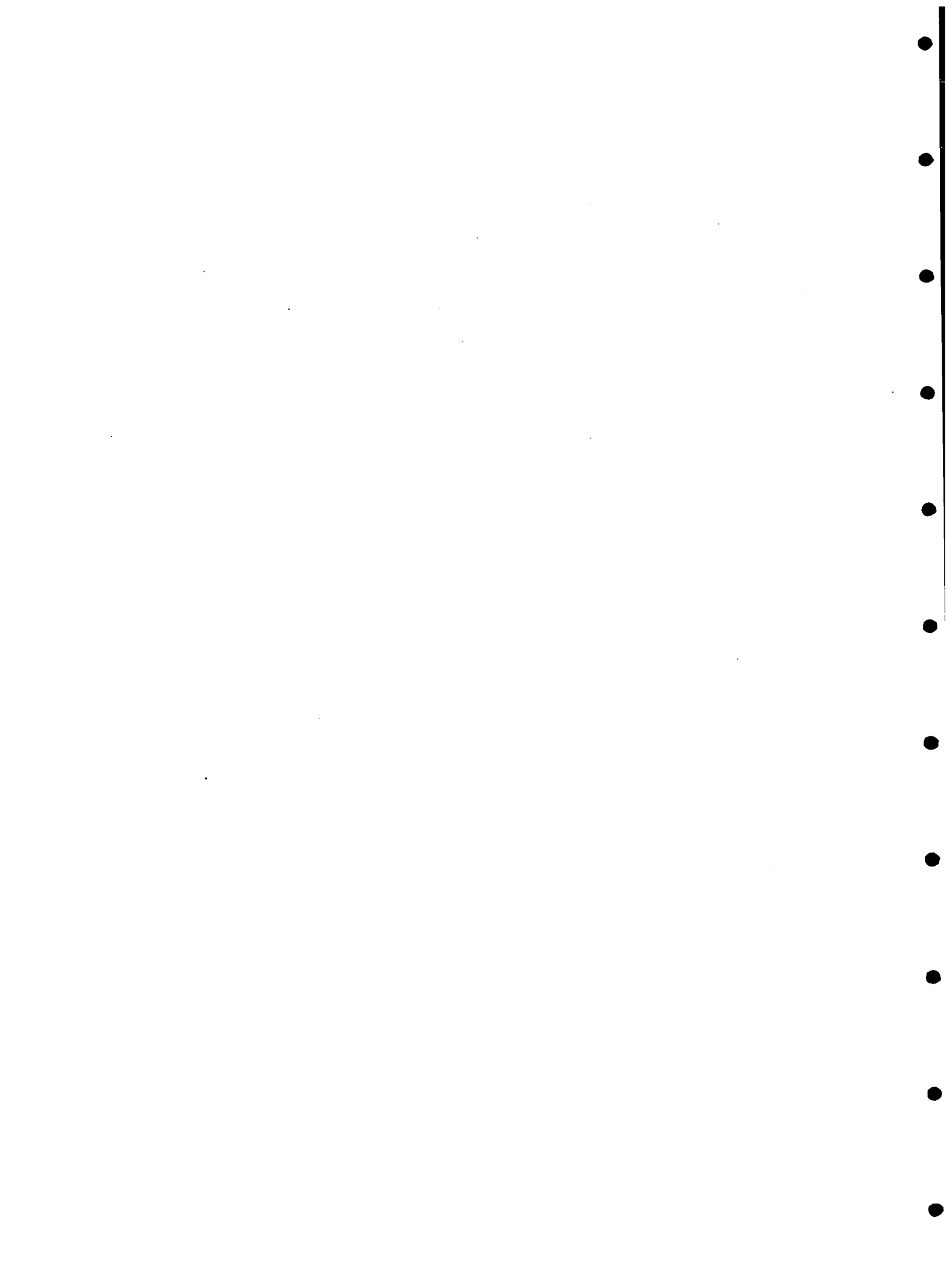
B. Design an information flow and paper flow for the Assignment Office. Working jointly and using the results of Step A, INSLAW and the Court designed an information flow that incorporated computer assistance into scheduling operations.

C. Estimate cost and time savings provided by automated assistance.

D. Write procedures to support the new computer-oriented information and paper flow.

E. Design forms.

F. Develop software specifications.

G. Program.

H. Site preparation and testing.

I. Training.*

J. Implementation and fine tuning.*

K. Complete documentation.*

The automated scheduling system was designed to be linked to the Court's case tracking system. Through access to case tracking data, the scheduling system can extract a predetermined number of pending civil and criminal cases awaiting Court action. The system then automatically schedules those cases up to ten

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*Not completed within the period covered by the grant because of the project's unexpected interruption, discussed earlier.
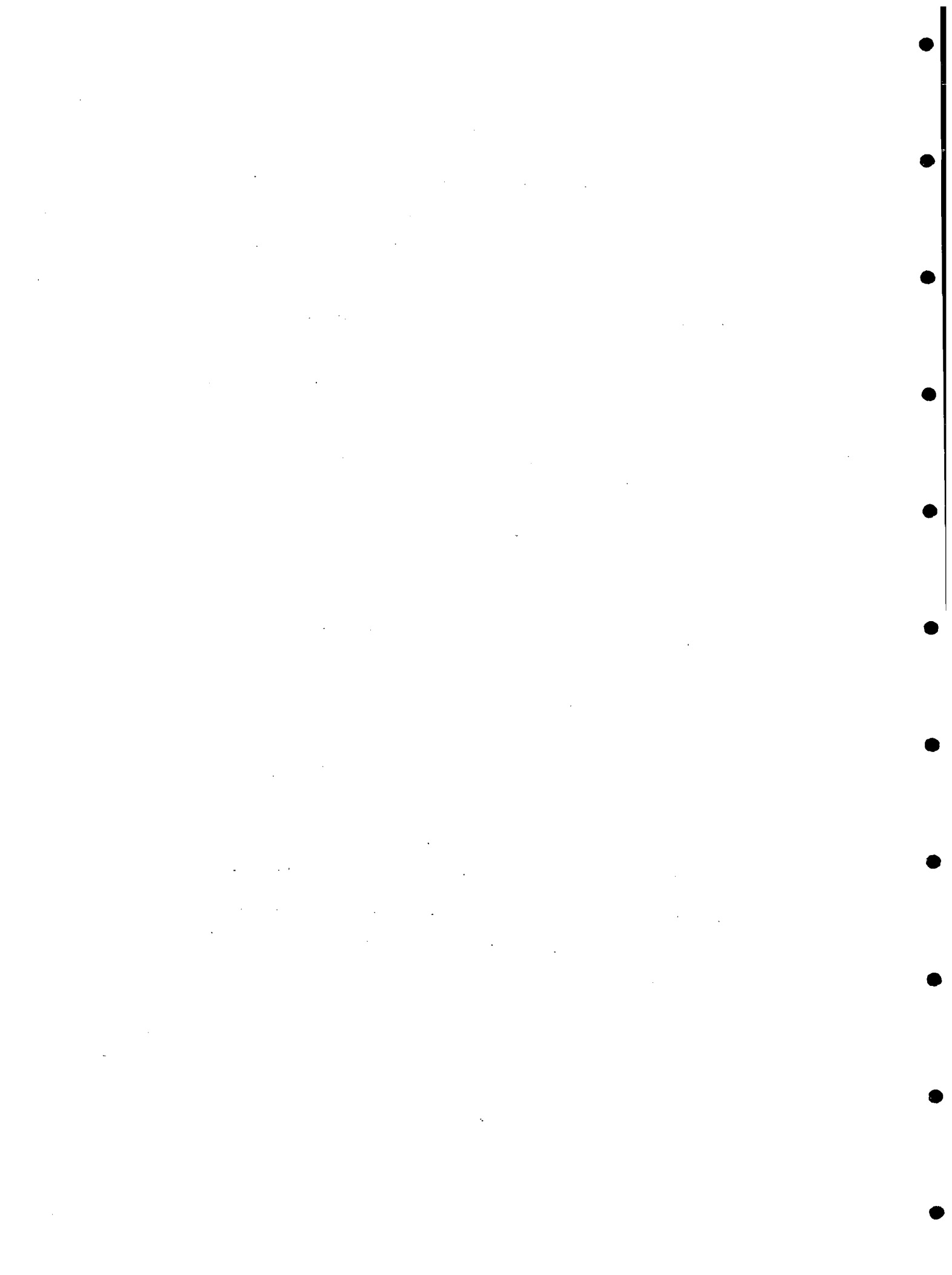
weeks into the future. The automated data-support component is programmed to:

- Keep a record of all necessary scheduling information by case.

- Identify potential scheduling conflicts between the various participants of a case.

- Monitor the overall status of events scheduled for the next ten weeks.

- Provide a listing of all cases scheduled for a given date.

- Furnish management with an overview of the total number of cases pending at each stage of the judicial process.

- Produce notices to attorneys of upcoming court events.

Although the foregoing capabilities of the automated scheduling system are explained in detail by Attachment F Proposed Procedures for Operating the Automated Court Scheduling System, elaboration on the system's ability to generate appearance notices is warranted here. In most large courts, preparation of these notices requires the services of several clerks. A special notice format—a convelope—was designed for the court (see Exhibit 7 of Attachment F). This notice can be generated automatically and lists all appearance dates that have been set for each stage of the proceedings. If scheduling changes are necessary, supplemental notices can be prepared showing the new hearing dates and instructing the recipients to ignore any previous notices.
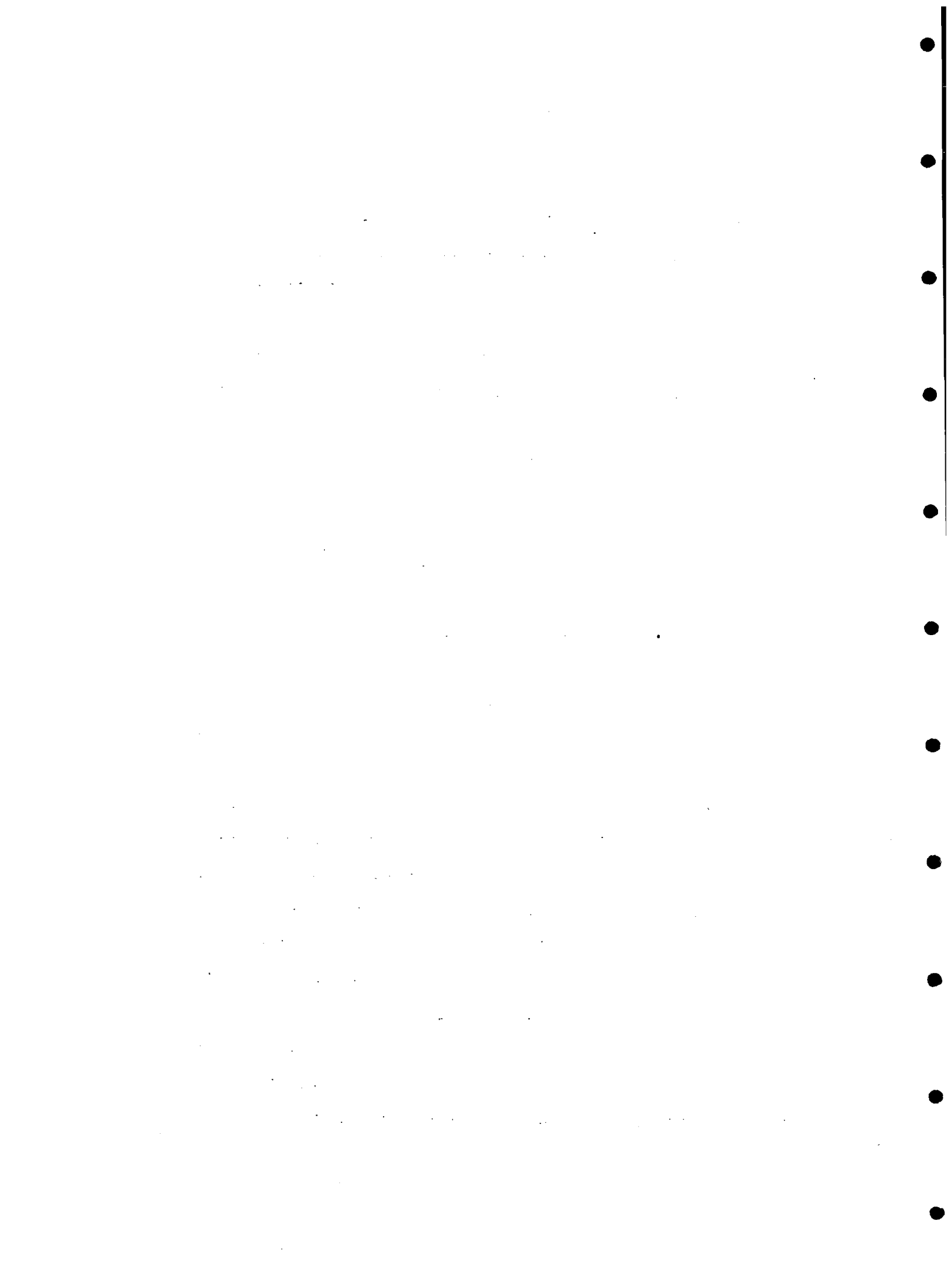
INSLAW estimates that this new method of preparing appearance notices will result in a saving of approximately 3,562 clerical hours. An additional 3,413 hours may be saved by using the automated scheduling system to compile and type daily calendars, to eliminate filing and maintaining At-Issue Praecipes, and to answer case status inquiries through an on-line terminal.

Potential benefits for the Court

The clerical savings referred to above probably will more than offset the expense of implementing the automated scheduling system.

In a broader context, however, the work performed by INSLAW and the Court has provided a wealth of data about how the Court operates, which can serve as the basis for judges and Court Administrator to explore further the kinds of management objectives and policies that seem appropriate and that should be embedded into the operational fabric of the automated scheduling system.

Management objectives, policies, and priorities can be embedded into the scheduling system through its parameter file, which provides the analytical basis upon which the scheduling programs operate. For example, attributes that qualify cases for priority scheduling can be reflected by the parameter file, as can the desired case processing stages and time limits for each stage. If the number of cases build up to a point where the Court cannot hear them within the time limit allowed, the parameter file can trigger a warning. Furthermore, the parameter file can reflect the number of judges available, the
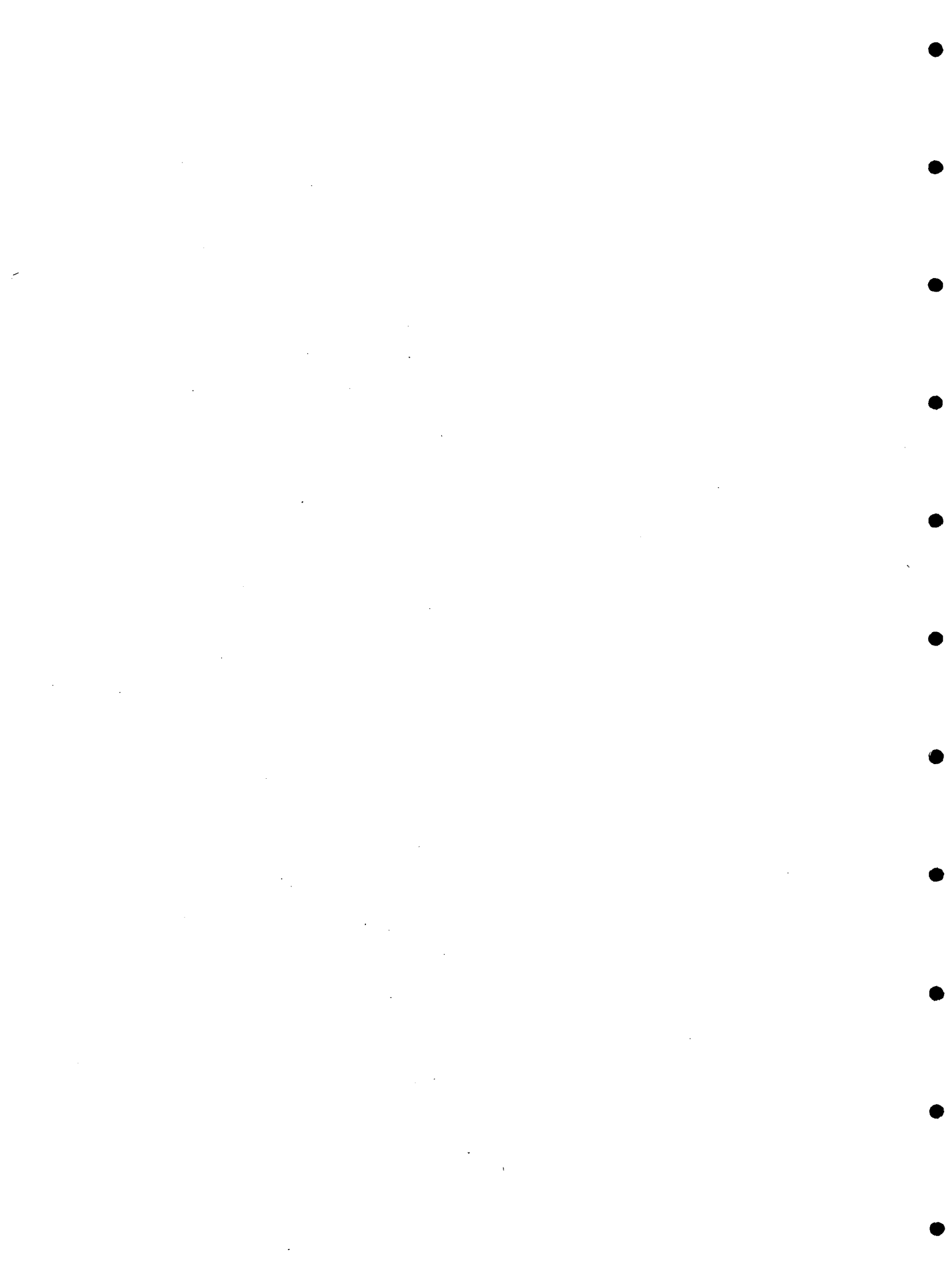
probability of an event taking place, and estimated event duration.

Once these and other scheduling "ground rules" supplied by management have been built into the scheduling system, the consistency and continuity of Court objectives and priorities are promoted despite personnel turnover. Feedback from the system may well cause the Court's management group to alter policies from time to time, in which case the parameter file could be changed accordingly.

The point is that management decisions can now be grounded on fact, not on informal and possibly misleading perceptions. As the National Advisory Commission on Criminal Justice Standards and Goals concluded, "Official judgment in criminal justice as in other policy areas is not likely to be sounder than the available facts. Unfortunately, the information needed to support official judgment has too often been absent in many jurisdictions."[*]

Hennepin and Milwaukee County Courts

Attachments G and H are the work plans developed for the Hennepin County Municipal Court and Milwaukee County Circuit Court, respectively. Because work at both courts was interrupted by events beyond the control of INSLAW and the courts themselves, the Volume I description of what was accomplished at those locations cannot be significantly extended here. Readers are, therefore, referred to Chapter V of that volume.

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[*]National Advisory Commission on Criminal Justice Standards and Goals, Criminal Justice System (Washington: Government Printing Office, 1973), p. 2.
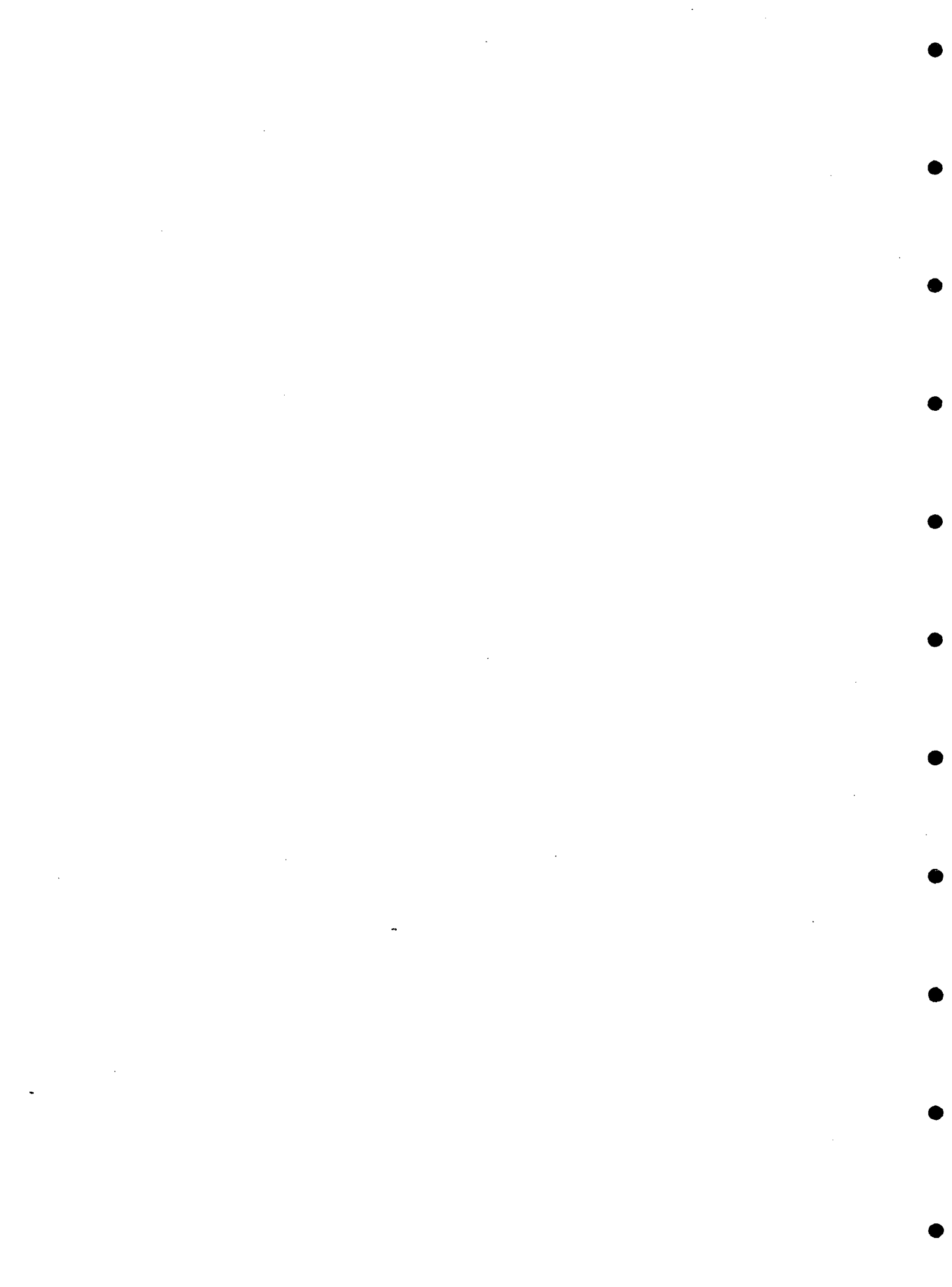
ATTACHMENT A

A JUDICIAL ALLOCATION MODEL
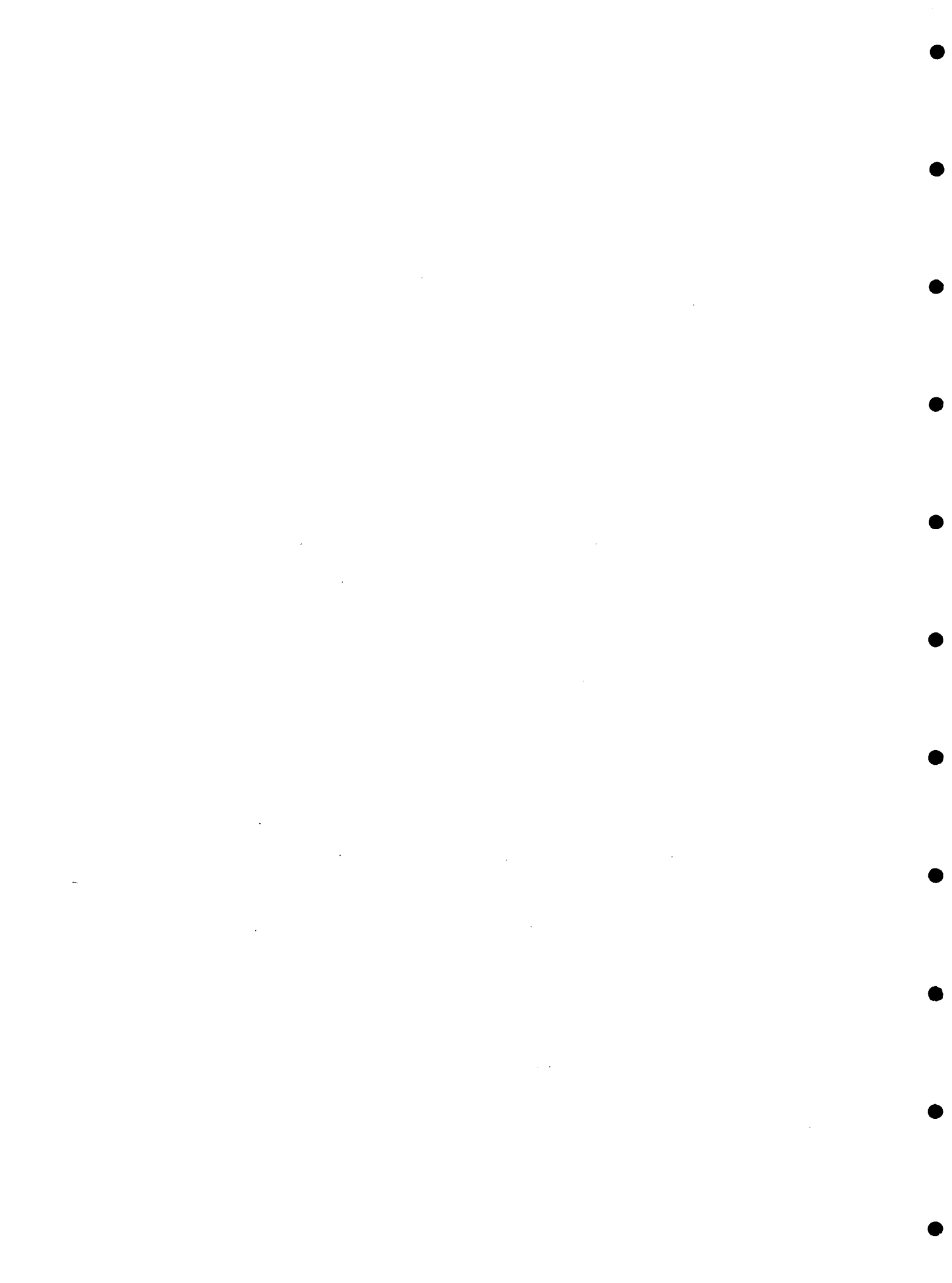
ATTACHMENT A
A JUDICIAL ALLOCATION MODEL

Administration of a court or court system must address, almost continuously, the problem of allocating judicial resources. Like most policy issues, there is no correct solution; instead some balance among trade-offs must be sought. Assigning judges to cases, or vice versa. is accomplished in most courts by "feel" and without benefit of quantitative analysis of alternatives. Most courts, by now, publish an annual report with a statistical picture of their operations; these data could also be used to provide insight to alternative judicial allocation. Certainly, considerable assistance could be given the judicial administrator from the wealth of data already captured by courts if only the information were analyzed by a simple yet flexible and interactive model.

The Model

The judicial allocation model described below is based on a simple formula that incorporates items of information familiar to and available from all courts.

For each type of case specified by the user, the model will produce the following information:

. Length of planning period.

. Case type.

. Number of judges allocated.

. Cases pending at start of period.

A-1

- Expected number of cases filed during period.

- Expected number of cases disposed during period.

- Expected age of cases at disposition (in months).

Exhibit A-1 is an output from the model using the data described in Exhibit A-2.

EXHIBIT A-1

OUTPUT FROM A JUDICIAL ALLOCATION MODEL

1977CASE DATA FCR CCURT X
LENGTH CF PLANNING PERIOD =   12

| CASE TYPE | JUDGES ALLOCATED | CASES PENDING AT START | EXPECTED NO. OF CASES: | | | EXPECTED DISP. AGE |
			FILED	DISPOSED	PENDING	
CRIM	6.0	1800.	3250.	3173.	1877.	6.94
CIVIL	3.0	5100.	6550.	4743.	6907.	15.00
DCMREL	2.0	4250.	6350.	6067.	4533.	8.66

User data bases may be created by means of an interactive FORTRAN program, JUDALL, described later. Loading the user data base into the JUDALL program results in an option to view the data base and make modifications prior to computation. As can be seen from the display reproduced in Exhibit A-2, the user must provide information on current case load and filings, current allocation and utilization, methods of case disposition and percentages, and judge time required for each method of disposition.

A-2
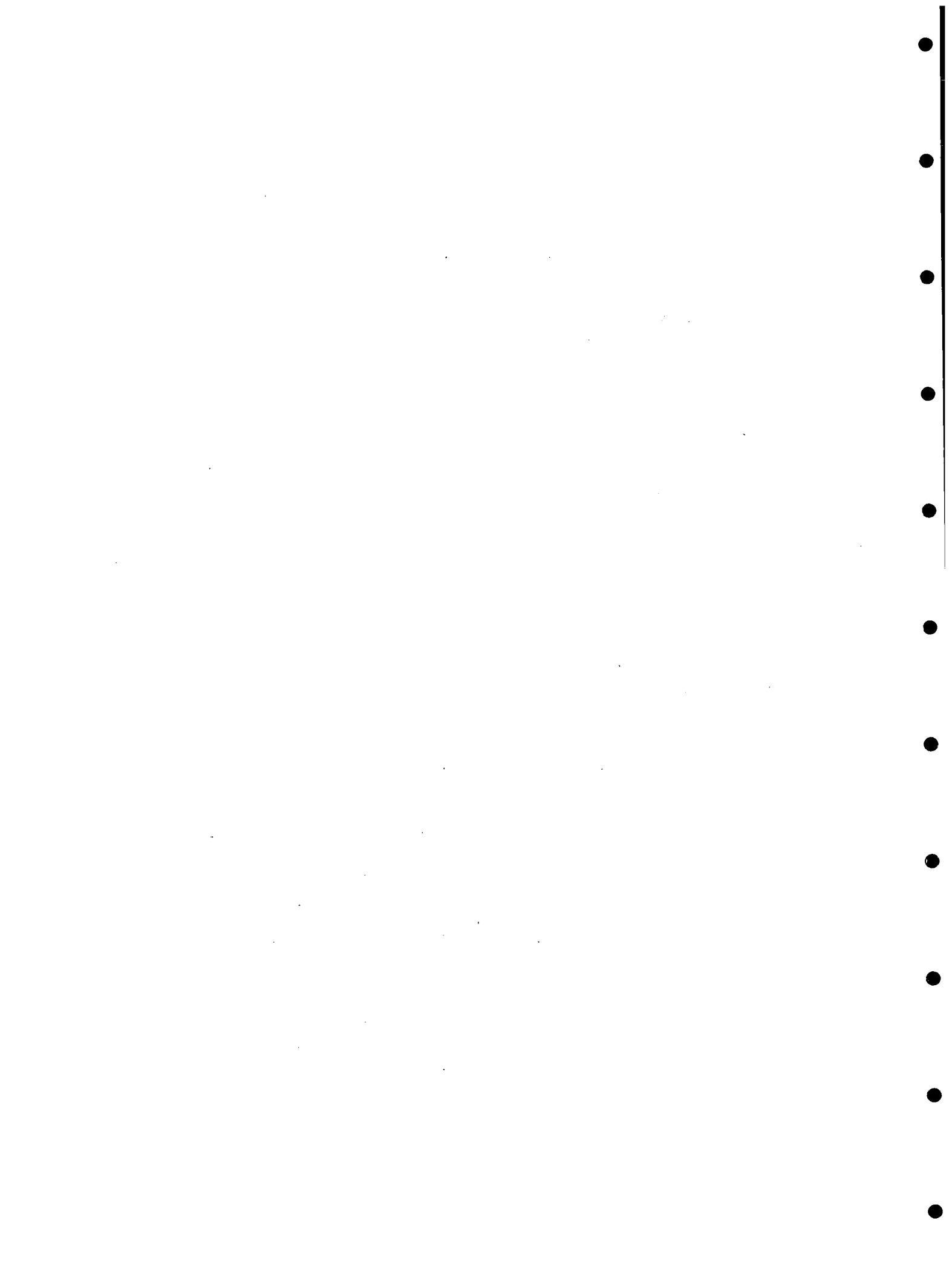
EXHIBIT A-2

DATA REQUIRED BY THE MODEL

```
1977CASE DATA FOR COURT X
CASE    CASES    CASES    CURRENT              PERCENTAGE OF CASE:
TYPE    PENDING  FILED    ALLOCATION:
        (BEG.F   PER YR.                       FALL    SHORT    COURT   JURY
        PERIOD)           JUDGES   UTIL.       OUT     CAUSE    TRIAL   TRIAL

CRIM     1800.   3250.    6.0      1.000       0.940   0.000    0.010   0.050
CIVIL    5100.   6550.    3.0      1.000       0.930   0.000    0.050   0.020
DOMREL   4250.   6350.    2.0      1.000       0.980   0.000    0.020   0.000
MODIFICATIONS?

DO YOU WANT TO SEE THE 2ND HALF? Y

1977CASE DATA FOR COURT X
CASE    CASES    CASES    JUDGE - TIME REQUIRED:
TYPE    PENDING  FILED
        (BEG.OF  PER YR.  FALL    SHORT    COURT   JURY
        PERIOD)           OUT     CAUSE    TRIAL   TRIAL
CRIM     1800.   3250.    1.500   0.000    5.000   16.000
CIVIL    5100.   6550.    0.200   0.000    5.000   16.000
DOMREL   4250.   6350.    0.300   0.000    5.000   0.000
MODIFICATIONS?
```

From its input and output, it is obvious that the model compares available resources (in terms of judge time) with work load (also expressed as judge time), computes the difference, and expresses it in terms of cases pending and case disposition age at the end of the planning period.

The item called utilization is included in recognition that not all available judge time will be spent on case related matters. Indeed, judicial time studies* have shown that only four or five hours a day can reasonably be expected for

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*Federal Judicial Center, The 1969-70 Federal District Court Time Study, FJC Research Series No. 71-1, (Washington, D.C., 1971); Ralph N. Kleps, "Weighted Caseloads and the Need for Judges," California Judicial Council AOC Newsletter, July-August 1975.
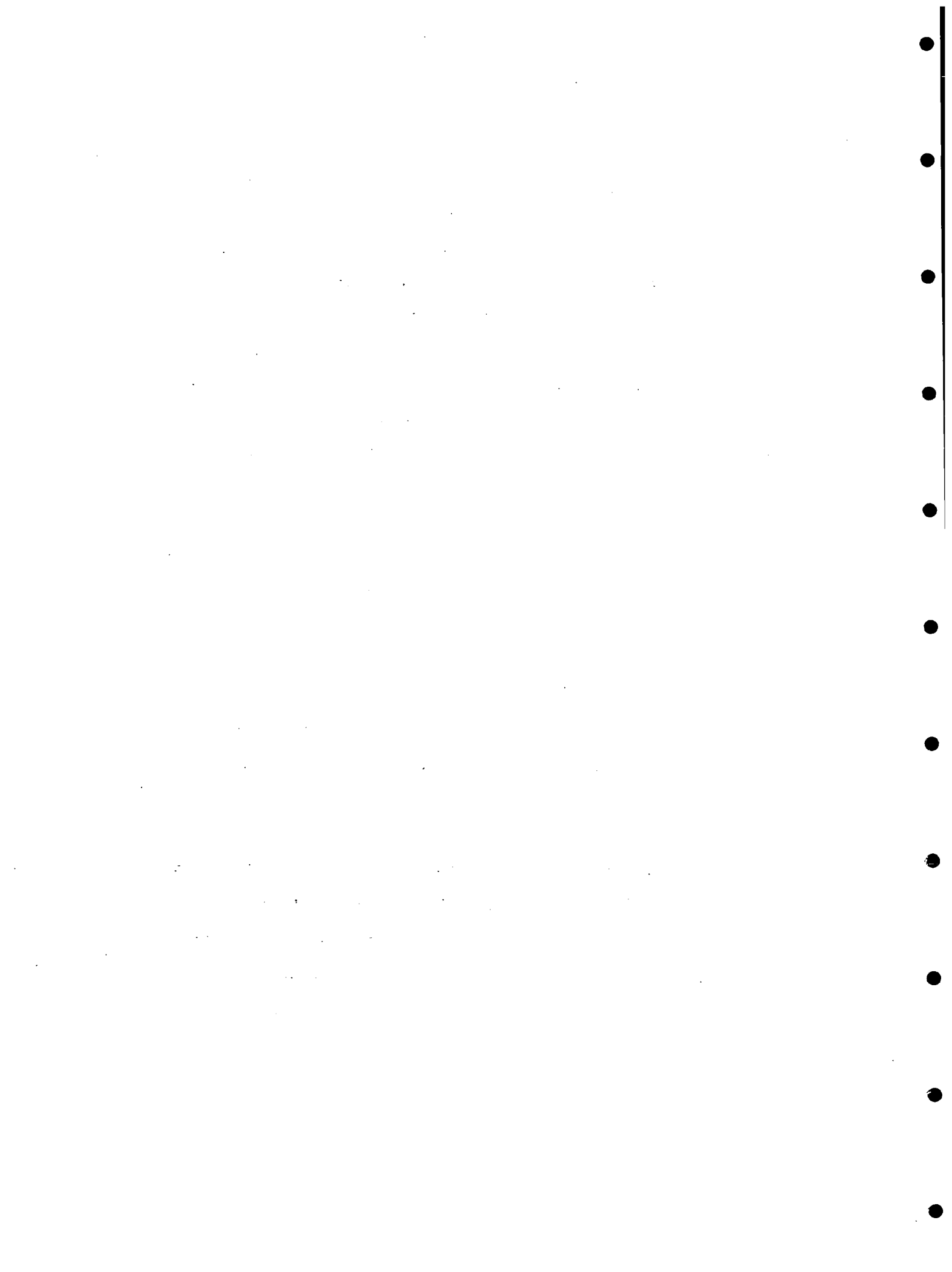
handling case-related matters and that administrative time per judge is inversly related to court size. This is especially apparent in states where judges ride the circuit. Another use of "utilization" is to calibrate the model where estimates of judge time required for each method of disposition are considered to be reasonably accurate, yet the model's calculations do not agree with actual figures when historical data are used.

Information on the percentage of cases that fall out (little or no judge time), or are disposed by short cause, court trial, or jury trial (varying degrees of judicial involvement), and the amount of time in hours required on the average for each type of disposition can usually be derived from court statistics (see Chapter VI).

Another piece of valuable information entered by the user is the number of hours per month the court is available for business. In the examples which follow, 99.6 hours per month were used: (239 days per year X 5 hours per day) ÷ 12 months per year.

Example 1

Suppose court X decides the disposition age of 6.94 months (211 days) for criminal cases (Exhibit A-1) is too high and that it would like to bring the average below 6 months by reassigning a judge from domestic relations to the criminal bench
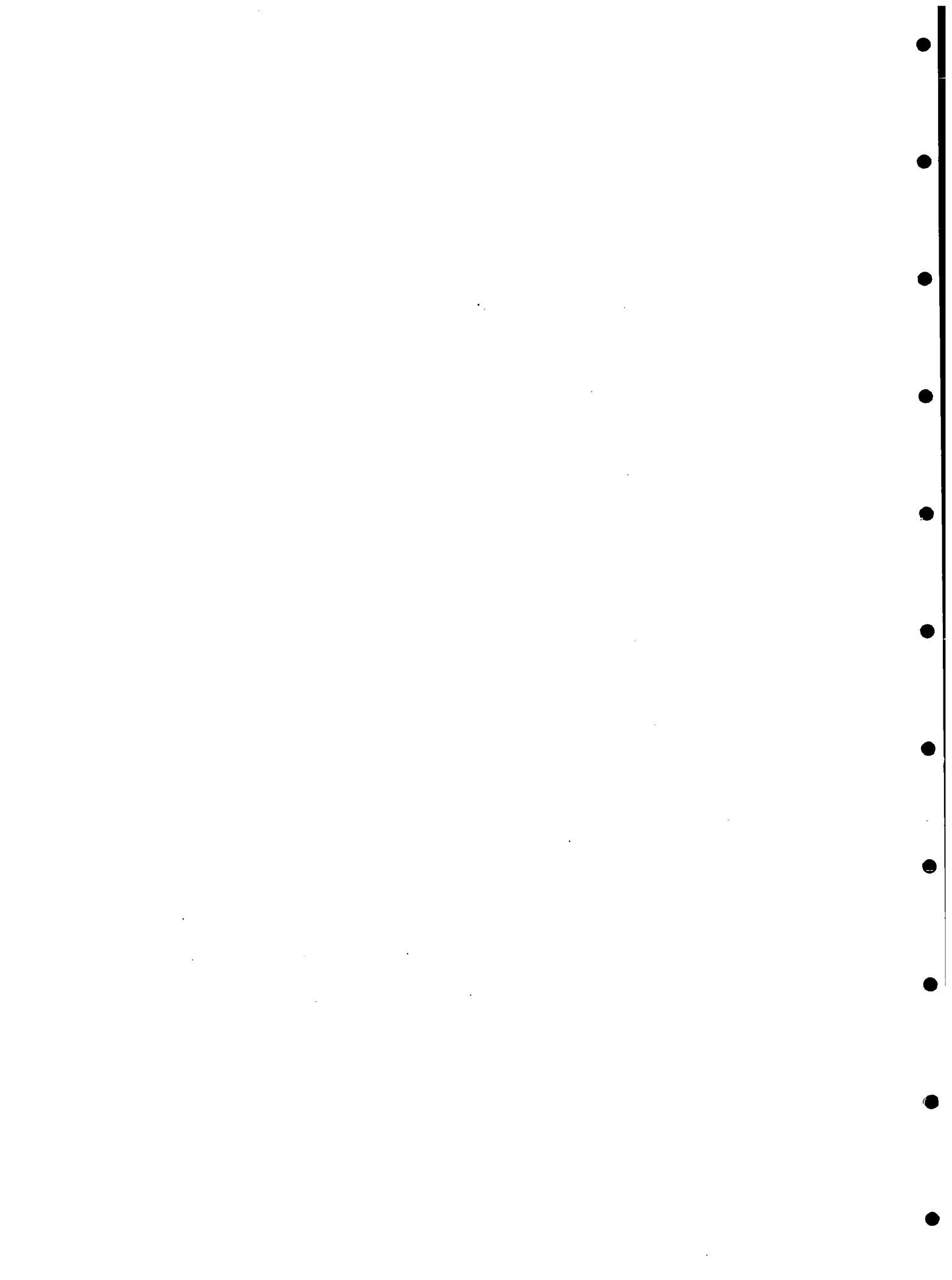
half time. Running JUDALL:

HOW MANY JUDGES ARE TO BE ALLOCATED TO CASE TYPE CRIM   ? 6.5

HOW MANY JUDGES ARE TO BE ALLOCATED TO CASE TYPE CIVIL   ? 3

HOW MANY JUDGES ARE TO BE ALLOCATED TO CASE TYPE DOMREL   ? 1.5

would show the desired reduction in criminal pending case load
and disposition age, but at some expense to the domestic rela-
tions cases (Exhibit A-3).

EXHIBIT A-3

IMPACT OF ALLOCATING MORE RESOURCES TO CRIMINAL BENCH

```
1977CASE DATA FOR COURT X
LENGTH OF PLANNING PERIOD =   12
CASE TYPE    JUDGES     CASES PENDING    EXPECTED NO. OF CASES:    EXPECTED
             ALLOCATED  AT START         FILED   DISPOSED  PENDING DISP. AGE
------------------------------------------------------------------------------
CRIM          6.5       1800.            3250.   3438.     1612.   5.98
CIVIL         3.0       5100.            6550.   4743.     6907.   15.00
DOMREL        1.5       4250.            6350.   4550.     6050.   13.38
DO YOU WISH TO RERUN?
```

The court might wish to rerun the model for a longer plan-
ning period, 36 months, to see how severely the imbalance between
domestic relations filings and dispositions can become and what
the expected case age at disposition would be (Exhibit A-4).
Obviously, the long-range impact of shifting 120 judge days from
the domestic relations bench to the criminal bench is considerable.
Whether the costs of this reallocation are acceptable is a policy
matter for the court.

A-5
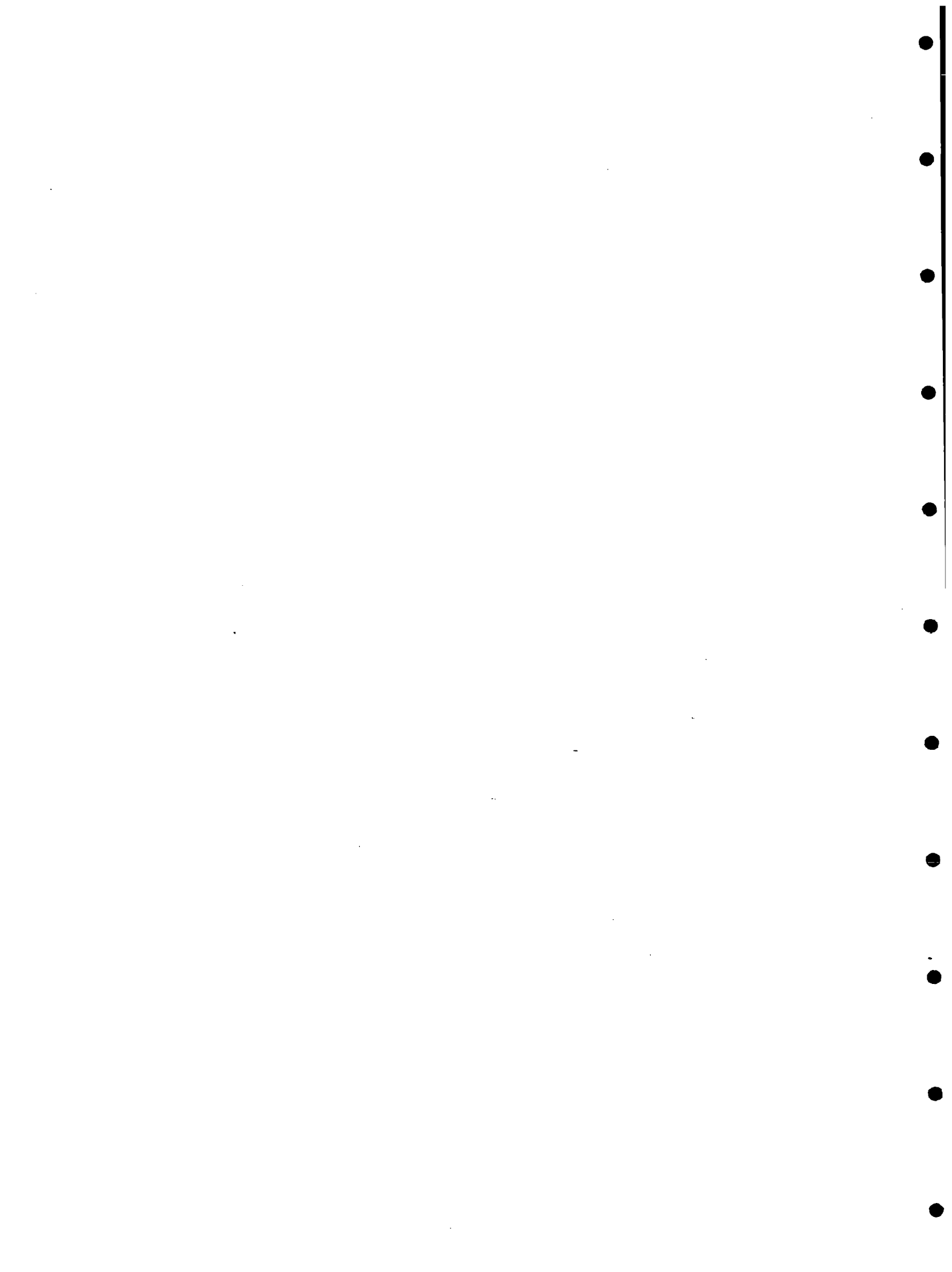
EXHIBIT A-4

RESULTS WHEN THE PLANNING PERIOD IS 36 MONTHS

HOW MANY MONTHS ARE IN THE PLANNING PERIOD? 36

1977 CASE DATA FOR COURT X
LENGTH OF PLANNING PERIOD = 36

CASE TYPE	JUDGES ALLOCATED	CASES PENDING AT START	EXPECTED NO. OF CASES: FILED	DISPOSED	PENDING	EXPECTED DISP. AGE
CRIM	6.5	1800.	9750.	10313.	1237.	5.33
CIVIL	3.0	5100.	19650.	14229.	10521.	19.57
DOMREL	1.5	4250.	19050.	13651.	9649.	18.13

Example 2

Suppose again that a study (systems analysis) of case pro-
cessing in the domestic relations division of court X had resulted
in recommendations for changes in forms and procedures, which were
estimated to save an average of three minutes of judge time per
uncontested case. This would decrease the average judge time
required per "fall-out" case from 18 minutes (0.3 hour) to 15 min-
utes (0.25 hour), an incremental change noticeable only in the
aggregate. Modification of the data element to read .25 hours
instead of .3 and a rerun of the model for 12 and 36 month plan-
ning periods yield results noted in Exhibit A-5.
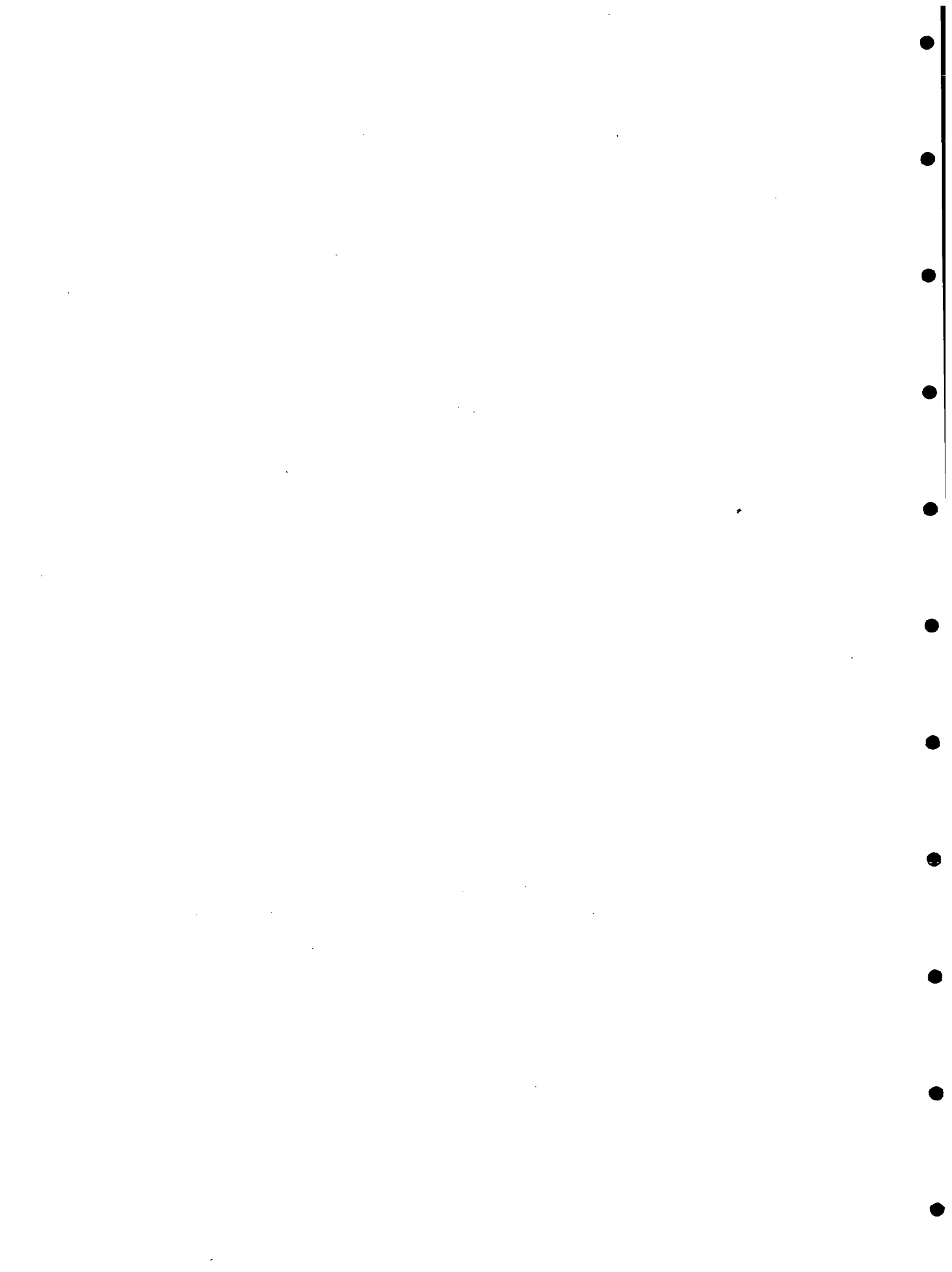
EXHIBIT A-5

EFFECT OF TIME-SAVING FORMS AND PROCEDURES CHANGES

MODIFICATIONS? Y

WHICH CASE TYPE SHOULD BE MODIFIED?
A '?', WILL GIVE A LISTING OF THE EXISTING CASE TYPES
A BLANK RESPONSE INDICATES NO CHANGES TO BE MADE.
CASE? 3

CHANGE THE NAME FOR CASE TYPE 3?

PLEASE ENTER DATA ITEM NUMBER(S) TO BE CHANGED 9

WHAT IS THE VALUE FOR AVG. JUDGE TIME/FALL-OUT?
.25

1977CASE DATA FOR COURT X
LENGTH OF PLANNING PERIOD =   12

CASE TYPE	JUDGES ALLOCATED	CASES PENDING AT START	EXPECTED NO. OF CASES: FILED	DISPOSED	PENDING	EXPECTED DISP. AGE
CRIM	6.5	1800.	3250.	3438.	1612.	5.98
CIVIL	3.0	5100.	6550.	4743.	6907.	15.00
DOMREL	1.5	4250.	6350.	5197.	5403.	11.04

DO YOU WISH TO RERUN? Y

SAME DATA BASE? Y

HOW MANY MONTHS ARE IN THE PLANNING PERIOD? 36

1977CASE DATA FOR COURT X
LENGTH OF PLANNING PERIOD =   36

CASE TYPE	JUDGES ALLOCATED	CASES PENDING AT START	EXPECTED NO. OF CASES: FILED	DISPOSED	PENDING	EXPECTED DISP. AGE
CRIM	6.5	1800.	9750.	10313.	1237.	5.33
CIVIL	3.0	5100.	19650.	14229.	10521.	19.57
DOMREL	1.5	4250.	19050.	15590.	7710.	13.70

DO YOU WISH TO RERUN?

STOP --

These results are interesting for two reasons. First, they illustrate the impact of nontrial (motions, orders, etc.) activities on available judge time and, second, they show the potential utility of good data, especially time data.
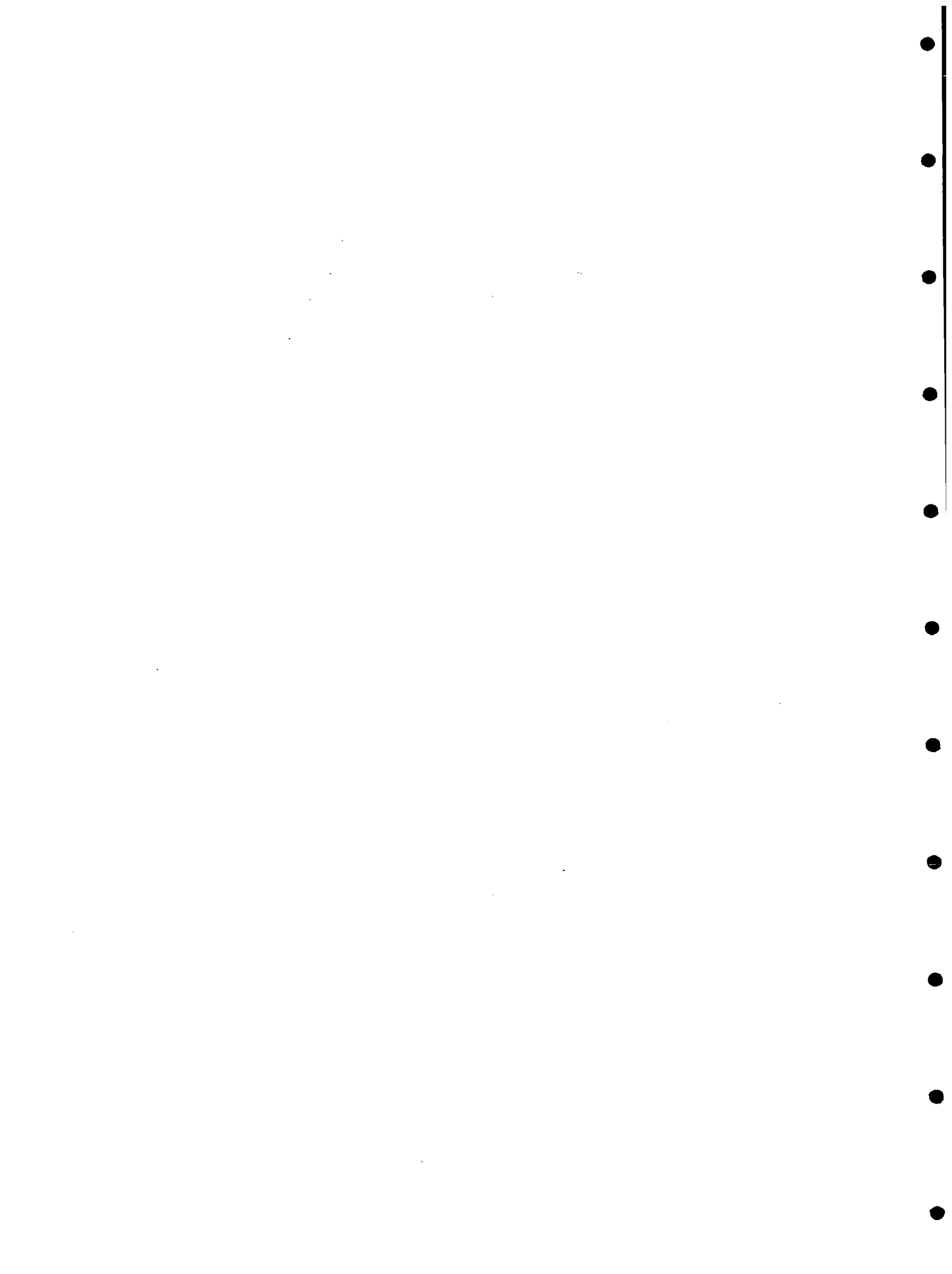
So far only two variables have been changed, judicial allocation and judge time for a fall-out disposition. Any of the other items can be modified either individually or as a group to determine other effects—for example, an increase in filings, changes in trial rates, or judge-time requirements.

The model can be used by a court to estimate the effects of either internally imposed (reallocations, new procedures) or externally imposed (new or pending legislation) changes.

Model Computations

JUDALL makes the following computations:

EC_i = expected judge time required per case of type i

$= FO_i \times TFO_i + SC_i \times TSC_i + CT_i \times TCT_i + JT_i \times TJT_i$

D_i = expected number of cases of type i disposed per month

$= J_i \times U_i \times HRS/EC_i$

(expected number of cases of type i disposed during planning period = $D_i \times t$)

F_i = expected filings per month

$= FY_i/12$

(expected filings during planning period = $F_i \times t$)

ET_i = expected average age at disposition for cases of type i filed during planning period:

$$= \frac{P_i}{D_i} + \frac{(F_i - D_i)}{tD_i} \cdot \sum_{j=1}^{t-1} j$$

Cases pending at end of period = $P_i + F_i xt - D_i xt$

A-8
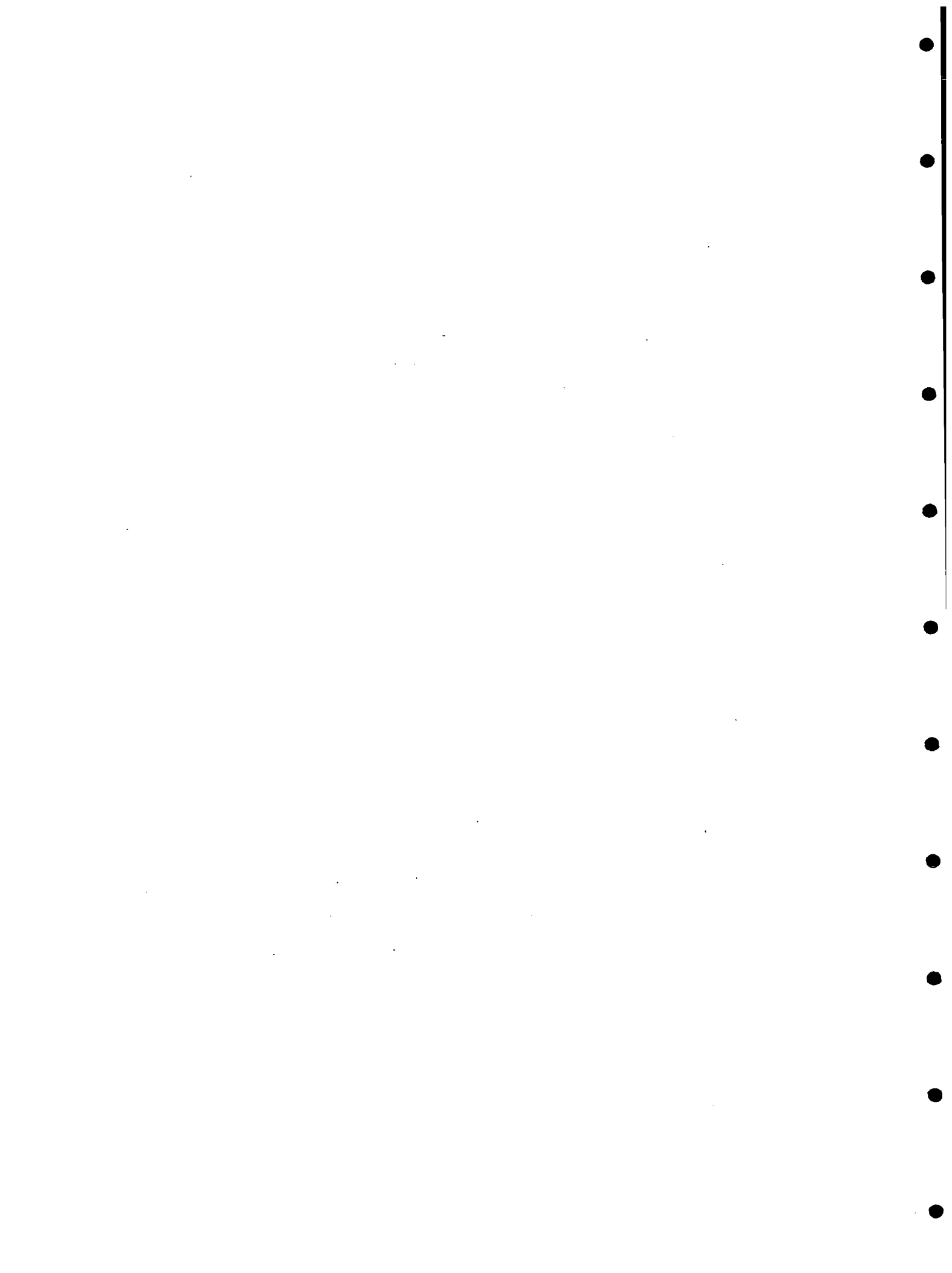
where:

Item 1:   Case Type I.D. (e.g., CIVIL, CRIM., etc.)

Item 2: P_i = cases of type i pending at start of planning period

Item 3: FY_i = average number of cases of type i filed per year

Item 4: J_i = number of judges (or judge equivalents) hearing cases of type i

Item 5: U_i = utilization (%) of judges hearing cases of type i

Item 6: FO_i = fall-out rate for cases of type i

Item 7: SC_i = short-cause rate

Item 8: CT_i = court trial rate

Item 9: JT_i = jury trial rate

Item 10: TFO_i = average judge time required per fall-out of type i (hrs.)

Item 11: TSC_i = average judge time required for short-cause of type i (hrs.)

Item 12: TCT_i = average judge time required per court trial of type i (hrs.)

Item 13: TJT_i = average judge time required per jury trial of type i (hrs.)

Item 14: W_i = priority (weight) of cases of type i

A sample data base is attached (Attachment 1).

The JUDALL Program

This section contains the Data Base Creation Program Listing, an example of its exercise in creating the data base used in the examples, and a JUDALL program listing.

Data Base Creation Program Listing

```fortran
      INTEGER ANS,YES,ADD,CHANGE,QUES
      LOGICAL*1 STRING(80), COMSTR(80)
      DIMENSION ILNGTH(10),TITLE(20),A(20,13), DBN(6)
      REAL INO
      REAL*8 NAME(20), CATEG(3,13)
      DATA CATEG/'CASES PE','NDING AT',' START  ',
     .           'AVG. NO.',' CASES  ','FILED/YR',
     .           'NUMBER O','F JUDGES','        ',
     .           'UTILIZAT','ION OF J','UDGES(%)',
     .           'FALL-OUT',' RATE   ','        ',
     .           'SHORT CA','USE RATE','        ',
     .           'COURT TR','IAL RATE','        ',
     .           'JURY  TR','IAL RATE','        ',
     .           'AVG. JUD','GE TIME/','FALL-OUT',
     .           'AVG. JUD',' TIM/SHO','RT CAUSE',
     .           'AVG. JUD',' TIM/COU','RT TRIAL',
     .           'AVG. JUD',' TIM/JUR','Y TRIAL ',
     .           'PRIORITY',' OF CASE','S       '/
      DATA YES,ADD,CHANGE,IBLNK/'Y','A','C','  '/
      COMMON TITLE,NAME,A,NCST,HRS
      COMMON/FIRST/ILNGTH,ILEN,IOLD
5     WRITE(5,10)
10    FORMAT(' PLEASE ENTER THE NEW DATA BASE NAME ',$)
      READ(5,20) DBN
20    FORMAT(6A4)
      CALL OPEN(1,DBN,0,'NEW')
      WRITE(5,22)
22    FORMAT(' PLEASE ENTER A TITLE FOR THE DATA BASE')
      READ(5,24) TITLE
24    FORMAT(20A4)
      WRITE(5,26)
26    FORMAT(' PLEASE ENTER THE NUMBER OF CASE TYPES ',$)
      READ(5,28) NCST
28    FORMAT(I5)
      DO 60 II=1,NCST
      WRITE(5,311) II
311   FORMAT(' NAME FOR CASE TYPE NO. ',I2,' ? ',$)
      READ(5,32) NAME(II)
32    FORMAT(A8)
      DO 60 I=1,13
      WRITE(5,55) (CATEG(J,I),J=1,3)
55    FORMAT(' WHAT IS THE VALUE FOR ',3A8,'?')
      READ(5,57) A(II,I)
57    FORMAT(F10.0)
60    CONTINUE
      WRITE(5,61)
61    FORMAT(' NO. OF HOURS COURT IS OPEN? ',$)
      READ(5,62) HRS
62    FORMAT(F6.0)
64    WRITE(5,65)
65    FORMAT(' CHANGES? ',$)
      READ(5,70) ANS
```

```
70      FORMAT(A2)
        IF(ANS .EQ. YES) CALL ALTER
        WRITE(1,151) (TITLE(I),I=1,20)
        WRITE(1,152) NCST,HRS
        DO 160 I=1,NCST
160     WRITE(1,153) NAME(I),(A(I,JJ),JJ=1,13)
151     FORMAT(20A4)
152     FORMAT(I2,F6.2)
153     FORMAT(A8,2F8.0,F8.1,8F10.3/5F10.3)
        CALL EXIT
        END




180     FORMAT(I5)
        IF(IM .LT. 1 .OR. IM .GT. 3) STOP 'NO MODEL REQUESTED'
        GO TO(240,200,300), IM
200     DO 230 I=1,NCST
        WRITE(5,210) NAME(I)
210     FORMAT(' HOW MANY JUDGES ARE TO BE ALLOCATED TO CASE TYPE ',A8,
       .'? ',$)
        READ(5,220) A(I,3)
220     FORMAT(F6.0)
230     CONTINUE
240     WRITE(5,250)
250     FORMAT(' HOW MANY MONTHS ARE IN THE PLANNING PERIOD? ',$)
        READ(5,180) IT
        IF(IT .EQ. 0) GO TO 240
        JI=0
        IF(IT .EQ. 1) GO TO 253
        DO 252 I=1,IT-1
252     JI=JI + I
253     DO 260 I=1,NCST
        EC(I)=(A(I,5)*A(I,9))+(A(I,6)*A(I,10))+(A(I,7)*A(I,11))
       .+(A(I,8)*A(I,12))
        IF(EC(I) .EQ. 0.0) EC(I)=0.01
        D(I)=((A(I,3)*A(I,4))*(HRS/EC(I)))
        F(I)=(A(I,2)/12)
        IF(D(I) .EQ. 0.0) D(I)=0.01
        ET(I)=(A(I,1)/D(I))+((F(I)-D(I))/(IT*D(I)))*JI
260     CP(I)=(A(I,1)+(F(I)*IT)-(D(I)*IT))
        WRITE(5,265) (TITLE(I),I=1,20), IT
265     FORMAT(1X,20A4/1X,'LENGTH OF PLANNING PERIOD = ',I5)
        WRITE(5,266)
266     FORMAT(' CASE TYPE',4X,'JUDGES',4X,'CASES PENDING',4X,
       .'EXPECTED NO. OF CASES:',4X,'EXPECTED'/12X,'ALLOCATED',
       .5X,'AT START',6X,'FILED  DISPOSED  PENDING  DISP. AGE'/
       .20('----')/)
        WRITE(3,2651)
```
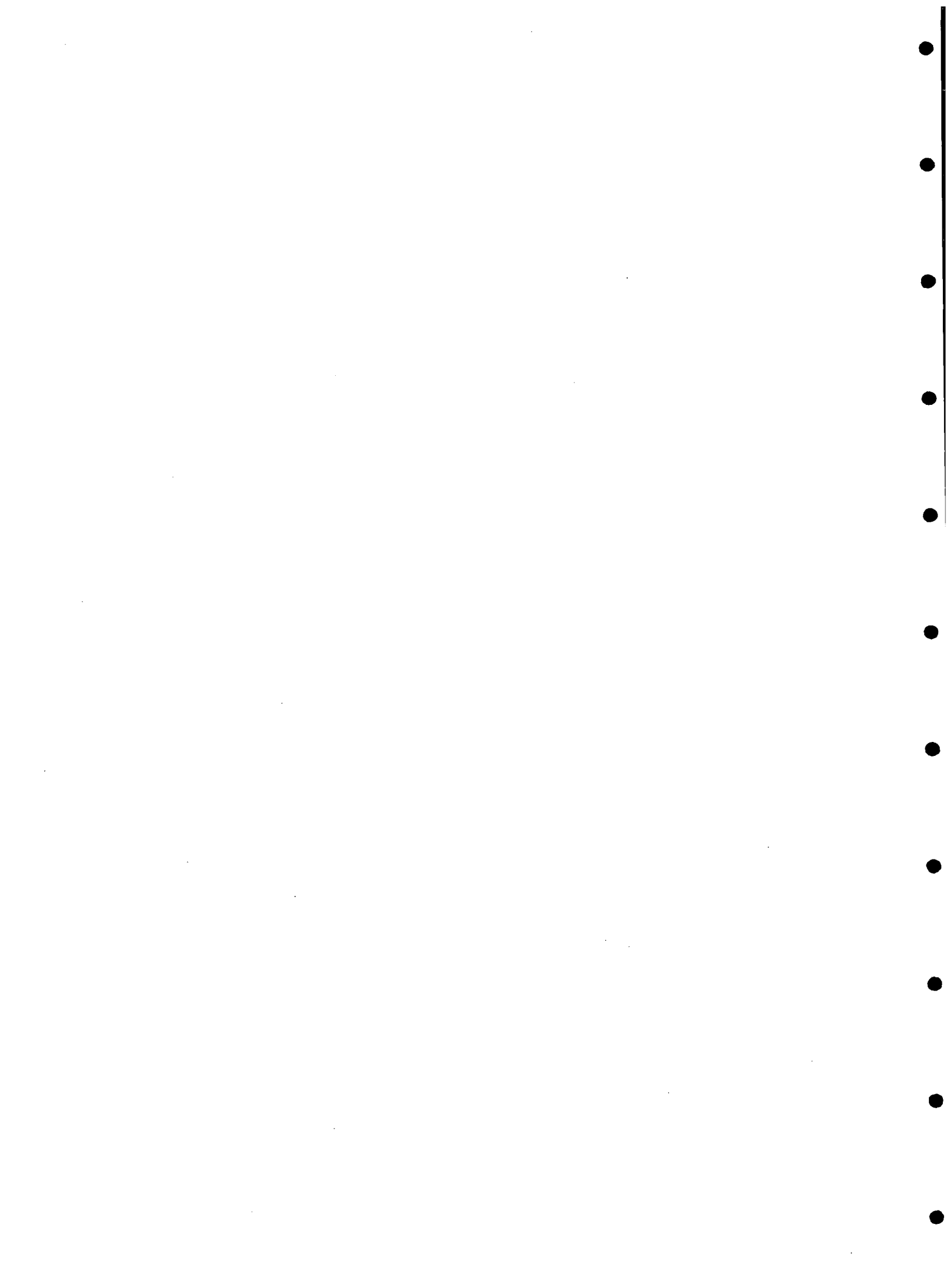
```
2651    FORMAT(////)
        WRITE(3,265) (TITLE(I),I=1,20), IT
        WRITE(3,266)
        DO 2661 I=1,NCST
        F(I)=F(I)@IT
        D(I)=D(I)@IT
        IF(CP(I) .LT. 0.0) CP(I)=0.0
        IF(ET(I) .LT. 0.0) ET(I)=0.0
2661    CONTINUE
        DO 268 I=1,NCST
        WRITE(5,267) NAME(I), A(I,3),A(I,1),F(I),D(I),CP(I),ET(I)
        WRITE(3,267) NAME(I), A(I,3),A(I,1),F(I),D(I),CP(I),ET(I)
267     FORMAT(1X,A8,4X,F8.1,5X,F8.0,4X,F8.0,2X,F8.0,1X,F8.0,2X,F8.2)
268     CONTINUE
        GO TO 990
300     CONTINUE
990     WRITE(5,992)
992     FORMAT(' DO YOU WISH TO RERUN? ',$)
        READ(5,994) ANS
994     FORMAT(A1)
        IF(ANS .NE. YES) GO TO 999
        WRITE(5,995)
995     FORMAT(' SAME DATA BASE? ',$)
        READ(5,994) ANS
        IF(ANS .EQ. YES) GO TO 39
        CALL CLOSE (1)
        GO TO 15
999     STOP
        END
```
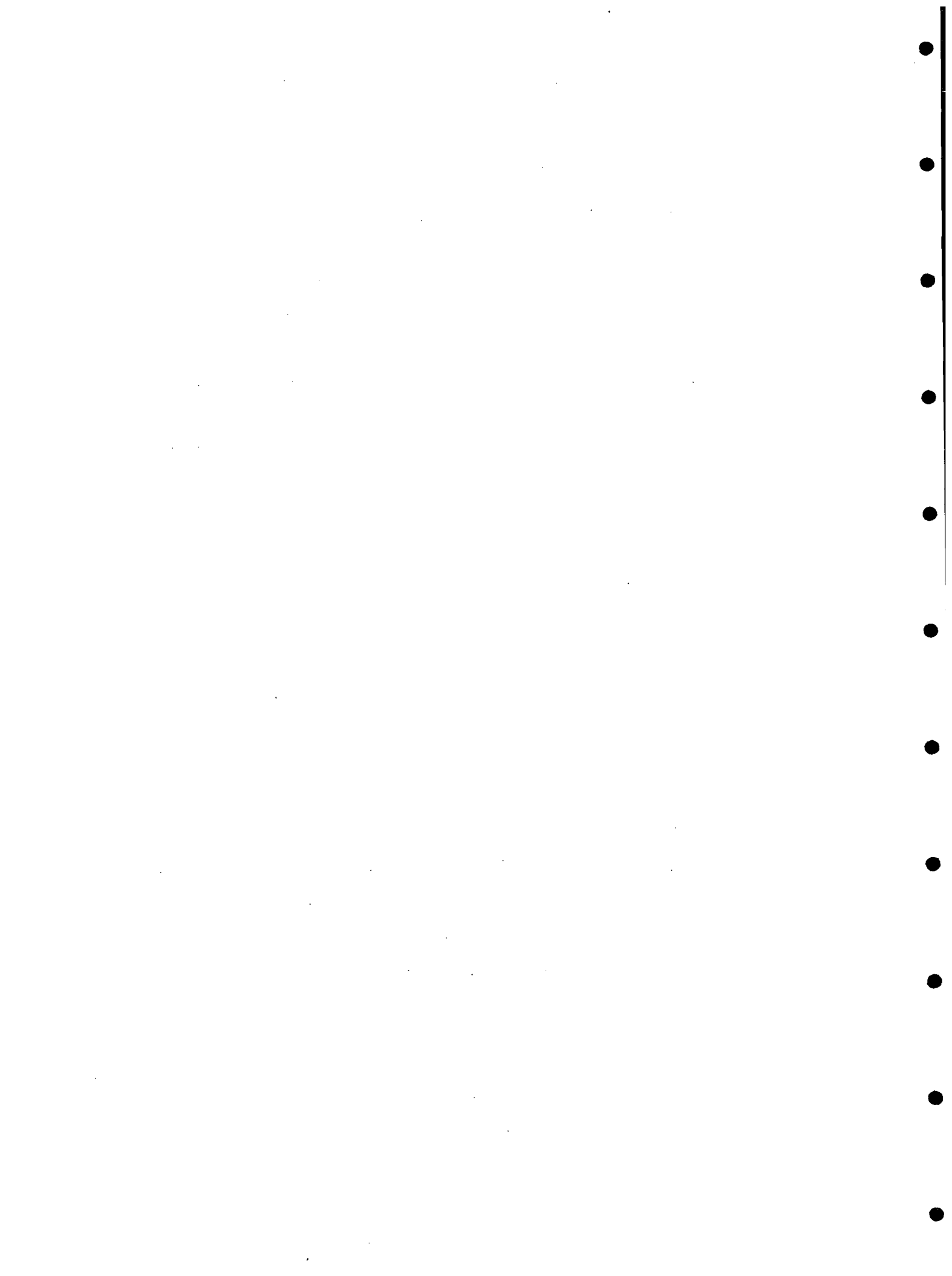
An example of exercising the program

PLEASE ENTER THE 68.* DATA BASE NAME COURTX

PLEASE ENTER A TITLE FOR THE DATA BASE
1977CASE DATA FOR COURT X

PLEASE ENTER THE NUMBER OF CASE TYPES 3

NAME FOR CASE TYPE NO. 1 ? CRIM

WHAT IS THE VALUE FOR CASES PENDING AT START ?
1800

WHAT IS THE VALUE FOR AVG. NO. CASES FILED/YR?
3250

WHAT IS THE VALUE FOR NUMBER OF JUDGES ?
6

WHAT IS THE VALUE FOR UTILIZATION OF JUDGES(S)?
1

WHAT IS THE VALUE FOR FALL-OUT RATE ?
.94

WHAT IS THE VALUE FOR SHORT CAUSE RATE ?
0

WHAT IS THE VALUE FOR COURT TRIAL RATE ?
.01

WHAT IS THE VALUE FOR JURY TRIAL RATE ?
.05

WHAT IS THE VALUE FOR AVG. JUDGE TIME/FALL-OUT?
1.5

WHAT IS THE VALUE FOR AVG. JUD TIM/SHORT CAUSE?
0

WHAT IS THE VALUE FOR AVG. JUD TIM/COURT TRIAL?
5

WHAT IS THE VALUE FOR AVG. JUD TIM/JURY TRIAL ?
16

WHAT IS THE VALUE FOR PRIORITY OF CASES ?
1

NAME FOR CASE TYPE NO. 2 ? CIVIL

WHAT IS THE VALUE FOR CASES PENDING AT START ?
5100

WHAT IS THE VALUE FOR AVG. NO. CASES FILED/YR?
6550

WHAT IS THE VALUE FOR NUMBER OF JUDGES ?
3

WHAT IS THE VALUE FOR UTILIZATION OF JUDGES(S)?
1

WHAT IS THE VALUE FOR FALL-OUT RATE ?
.93

WHAT IS THE VALUE FOR SHORT CAUSE RATE ?
0

WHAT IS THE VALUE FOR COURT TRIAL RATE ?
.05

WHAT IS THE VALUE FOR JURY TRIAL RATE ?
.02

WHAT IS THE VALUE FOR AVG. JUDGE TIME/FALL-OUT?
.2

WHAT IS THE VALUE FOR AVG. JUD TIM/SHORT CAUSE?
0

WHAT IS THE VALUE FOR AVG. JUD TIM/COURT TRIAL?
5

WHAT IS THE VALUE FOR AVG. JUD TIM/JURY TRIAL ?
16

WHAT IS THE VALUE FOR PRIORITY OF CASES ?
1

NAME FOR CASE TYPE NO. 3 ? DOMREL

WHAT IS THE VALUE FOR CASES PENDING AT START ?
4250

WHAT IS THE VALUE FOR AVG. NO. CASES FILED/YR?
6350

WHAT IS THE VALUE FOR NUMBER OF JUDGES ?
2

WHAT IS THE VALUE FOR UTILIZATION OF JUDGES(S)?
1

WHAT IS THE VALUE FOR FALL-OUT RATE ?
.98

WHAT IS THE VALUE FOR SHORT CAUSE RATE ?
0

WHAT IS THE VALUE FOR COURT TRIAL RATE ?
.02

WHAT IS THE VALUE FOR JURY TRIAL RATE ?
0

WHAT IS THE VALUE FOR AVG. JUDGE TIME/FALL-OUT?
.3

WHAT IS THE VALUE FOR AVG. JUD TIM/SHORT CAUSE?
0

WHAT IS THE VALUE FOR AVG. JUD TIM/COURT TRIAL?
5

WHAT IS THE VALUE FOR AVG. JUD TIM/JURY TRIAL ?
0

WHAT IS THE VALUE FOR PRIORITY OF CASES ?
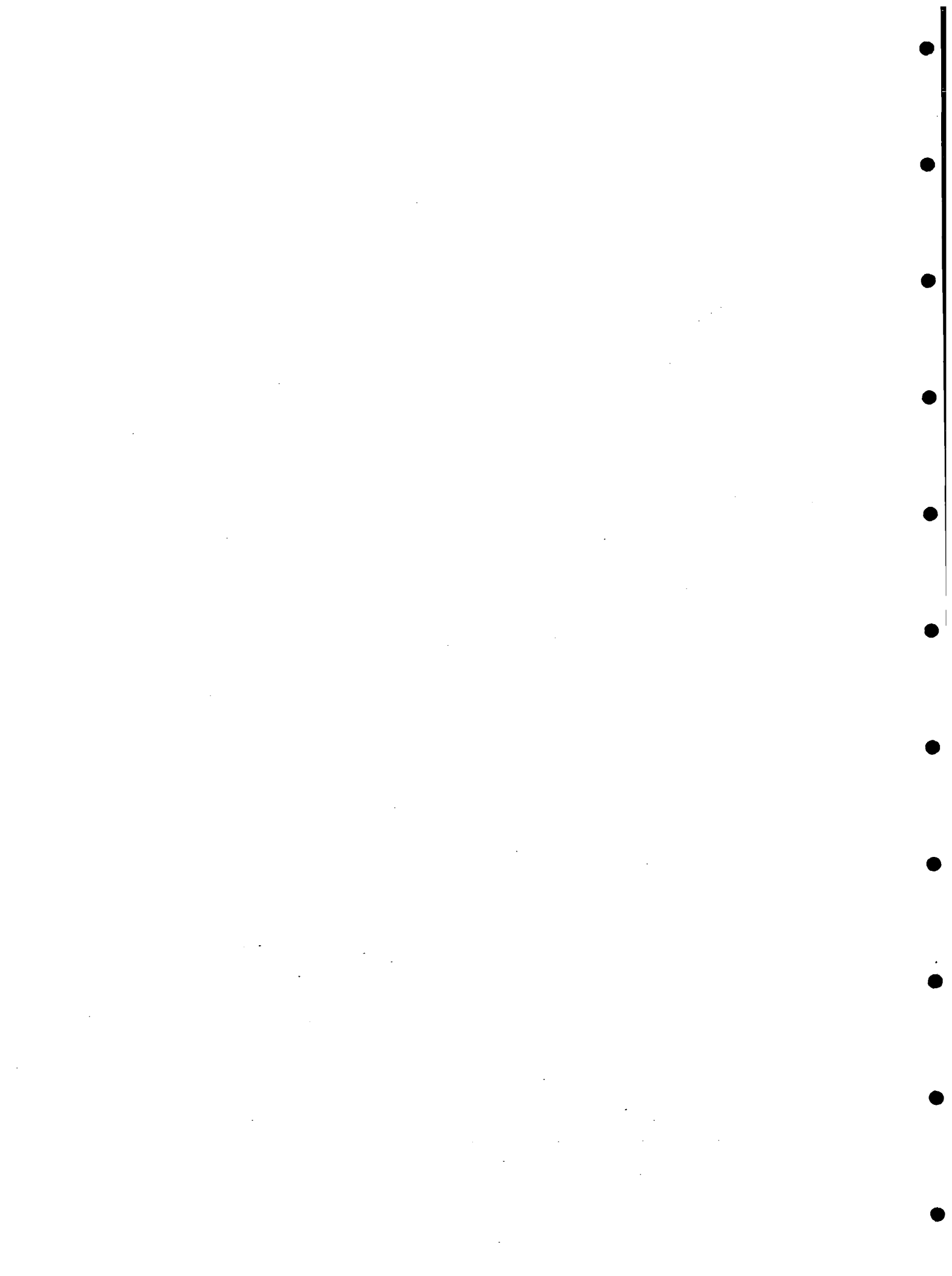
JUDALL Program Listing

```
PRP JUDALL.FOR
      LOGICAL*1 ANS, YES
      REAL*8 NAME
      REAL J(20)
      DIMENSION DBN(6),TITLE(20),NAME(20),A(20,13),EC(20),D(20),
     .F(20),ET(20),CP(20)
      DATA YES/'Y'/
      COMMON TITLE,NAME,A,NCST,HRS
      WRITE(5,10)
10    FORMAT(////15X,'***** WELCOME TO THE JUDICIAL ALLOCATION MODEL',
     .' *****',///////)
15    WRITE(5,20)
20    FORMAT(' PLEASE ENTER THE DATA BASE NAME ',$)
      READ(5,30) DBN
30    FORMAT(6A4)
      CALL OPEN(1,DBN,0,'OLD')
      WRITE(3,311)
311   FORMAT(1H1)
      READ(1,31) (TITLE(I),I=1,20)
      READ(1,32) NCST, HRS
      DO 35 I=1,NCST
35    READ(1,33) NAME(I),(A(I,JJ),JJ=1,13)
31    FORMAT(20A4)
32    FORMAT(I2,F6.2)
33    FORMAT(A8,2F8.0,F8.1,8F10.3/5F10.3)
39    WRITE(5,40)
40    FORMAT(' DO YOU WISH TO SEE THE DATA BASE? ',$)
      READ(5,50) ANS
50    FORMAT(A1)
      IF(ANS .NE. YES) GO TO 109
      WRITE(5,60) (TITLE(I),I=1,20)
60    FORMAT(1X,20A4)
      WRITE(5,70)
70    FORMAT(' CASE',3X,2('CASES',4X),' CURRENT',11X,'PERCENTAGE OF CASES
     .:'/1X,'TYPE    PENDING  FILED     ALLOCATION:',7X,20(' ')/8X,'(BEG.O
     .F PER YR.',3X,11('_'),7X,'FALL    SHORT   COURT   JURY'/8X,
     .'PERIOD) ',11X,'JUDGES   UTIL.   OUT     CAUSE   TRIAL ',
     .'TRIAL'/)
      DO 100 I=1,NCST
      WRITE(5,90) NAME(I), (A(I,JJ),JJ=1,8)
90    FORMAT(1X,A8,2(F7.0,1X),3X,F4.1,4X,5(F5.3,3X))
100   CONTINUE
109   WRITE(5,110)
110   FORMAT(' MODIFICATIONS? ',$)
      READ(5,50) ANS
      IF(ANS .EQ. YES) CALL ALTER
      WRITE(5,120)
120   FORMAT(' DO YOU WANT TO SEE THE 2ND HALF? ',$)
      READ(5,50) ANS
      IF(ANS .NE. YES) GO TO 155
      WRITE(5,60) (TITLE(I),I=1,20)
      WRITE(5,130)
130   FORMAT(' CASE   ',2('CASES',4X),'JUDGE - TIME REQUIRED:'/' TYPE',
     .'    PENDING  FILED',4X,22(' '),/8X,'(BEG.OF  PER YR.',2X,'FALL',
     .'    SHORT   COURT   JURY'/8X,'PERIOD)',11X,'OUT     CAUSE   TRIAL'
     .,'   TRIAL')
      DO 150 I=1,NCST
      WRITE(5,140) NAME(I),(A(I,JJ),JJ=1,2),(A(I,JJ),JJ=9,12)
140   FORMAT(1X,A8,2(F7.0,1X),5(F6.3,2X))
150   CONTINUE
155   WRITE(5,110)
      READ(5,50) ANS
      IF(ANS .EQ. YES) CALL ALTER
      WRITE(5,170)
170   FORMAT(' WHICH MODEL WOULD YOU LIKE TO USE? '//
     .5X,'1 = OUTPUT MEASURES COMPUTED FOR CURRENT ALLOCATION'/5X,
     .'2 = OUTPUT MEASURES COMPUTED FOR USER SPECIFIED ALLOCATION'/
     .5X,'3 = OPTIMAL JUDICIAL ALLOCATION FOR USER SPECIFIED'/7X,
     .' OBJECTIVE CHARACTERIZED BY PARAMETER ''A'''/
     ./1X,'MODEL? ',$)
```
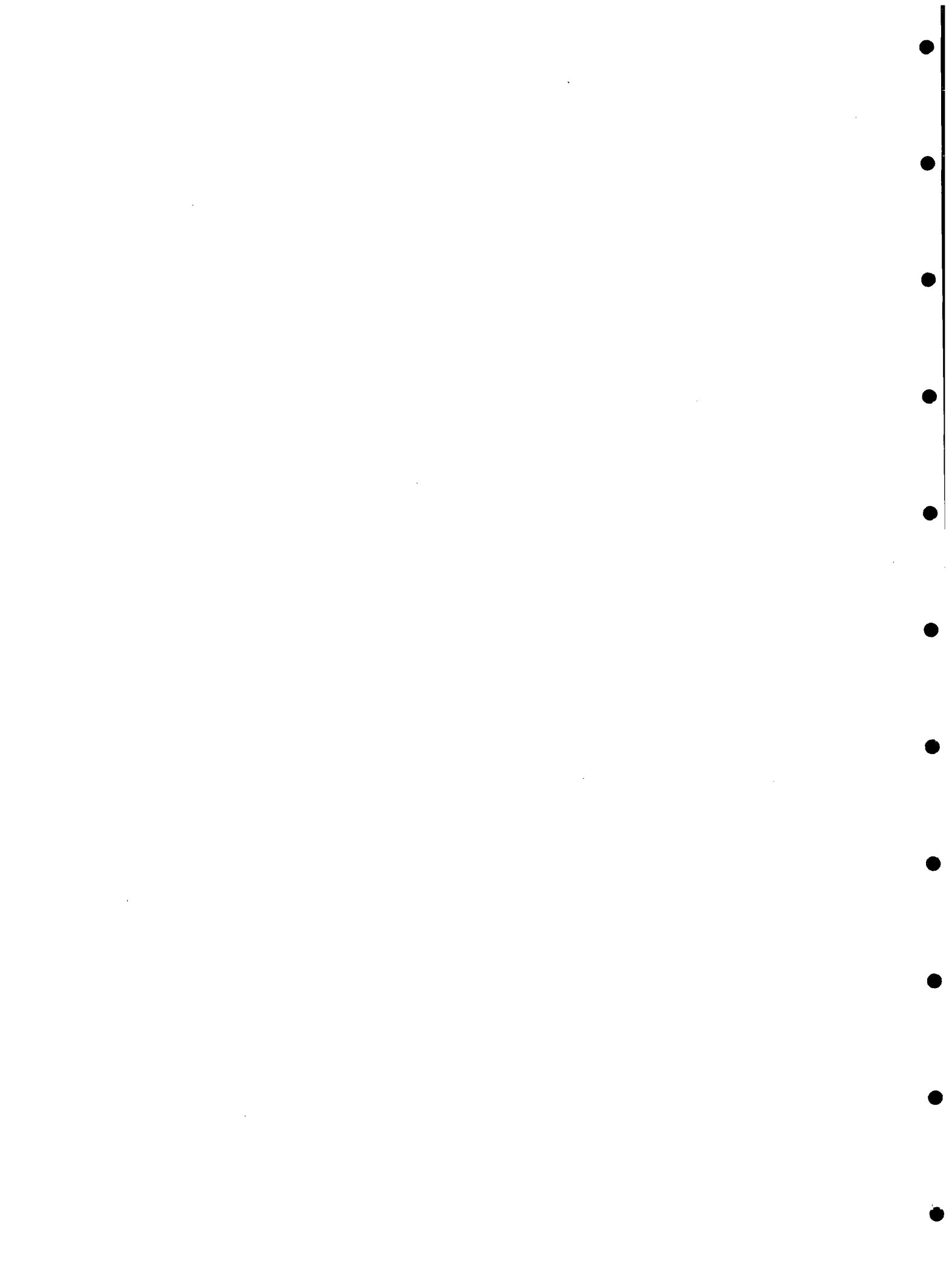
ATTACHMENT B

THE CONTINUANCE POLICY OF THE COURT
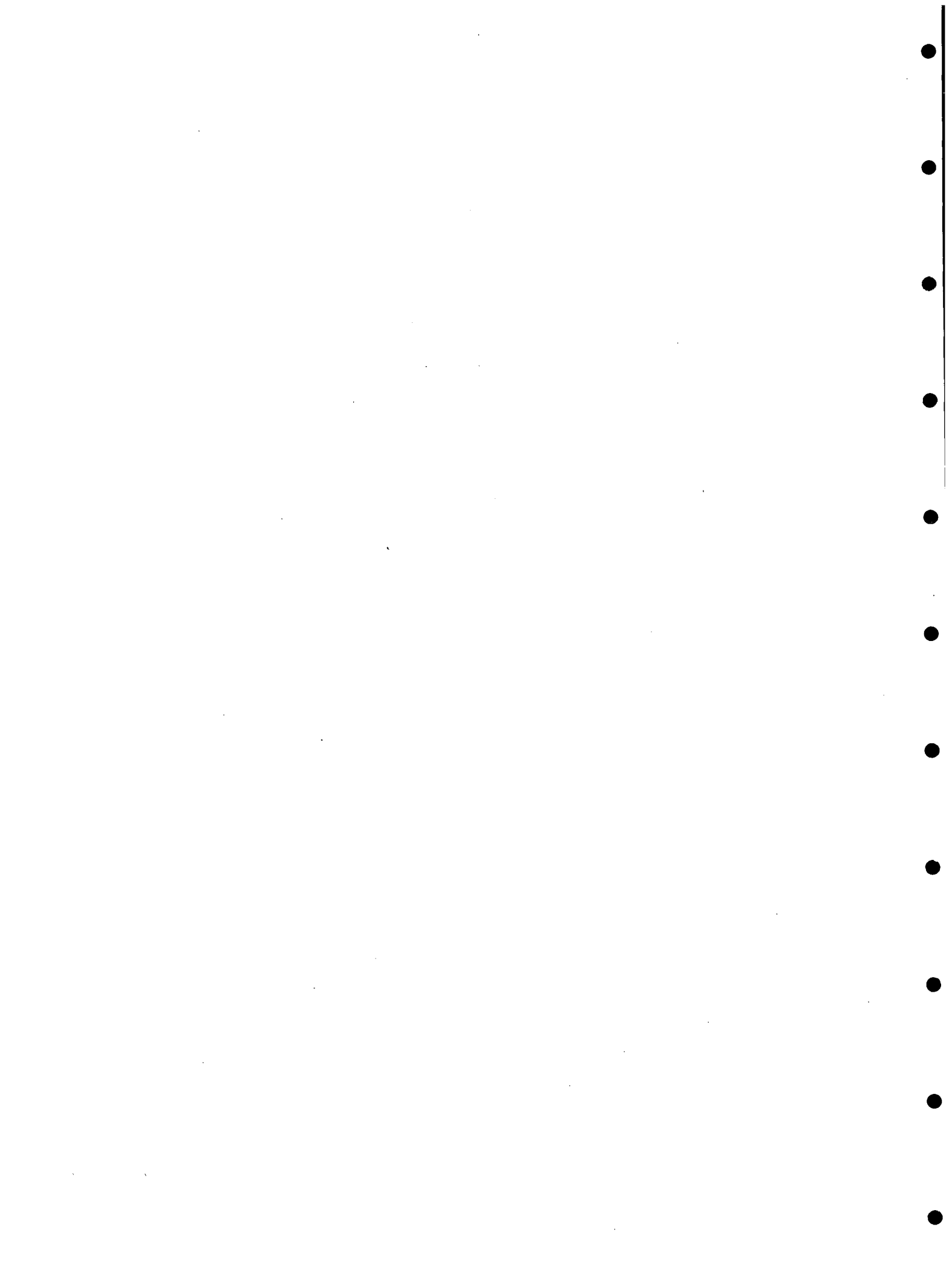
ATTACHMENT B

THE CONTINUANCE POLICY OF THE COURT

Probably the key issue in effective court scheduling is the continuance policy of a court. A case is continued when a judge declares the case adjourned or postponed to another date, thereby necessitating a rescheduling of that event and canceling its original scheduling, often the date and time when the continuance is requested. There are good legal reasons for granting continuances, and the stated continuance policy of most courts recognizes these reasons. But in practice the reasons justifying most continuances are usually not questioned. Instead, continuances may be granted both ad hoc and ad hominem, causing the continuance policy of the court to be administered erratically. Becuase delay interferes with the adjudication process, continuances as a major cause of delay should be restricted; if granted, they should meet uniformly administered standards.

Both the Sixth Amendment to the U.S. Constitution and many similar state constitutional provisions give defendants the right to a speedy trial. Judges have clear legal grounds for urging prosecutors to move for speedy dispositions so that evidence does not weaken because of memory failure, loss of supporting witnesses, or the appearance of opposition witnesses. Courts and prosecutors are further urged to provide defendants with speedy trials by the provisions

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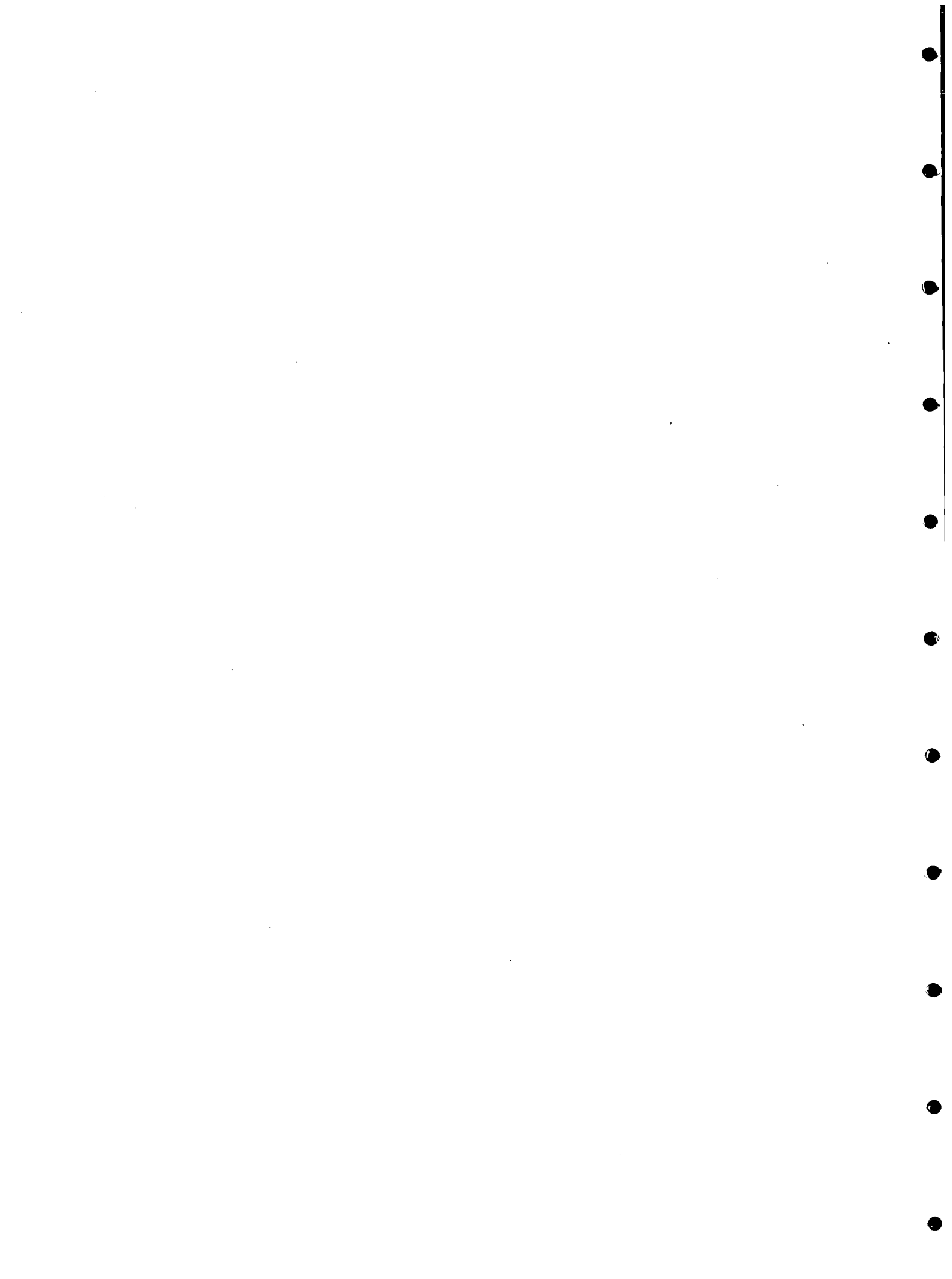
of the Speedy Trial Act of 1974. In Court Standard 4.12, the National Advisory Commission on Criminal Justice Standards and Goals states that "[c]ontinuances should not be granted except on verified and written notation and a showing of good cause." The ABA Standard Relating to Speedy Trial, 1.3, concurs with the NAC Standard, adding that "the public interest in prompt disposition of the case" should be taken into account. The legal objective of speedy trial procedures, bringing individuals to justice, is hampered by the delay caused by continuances.

Importance of a Continuance Policy to Court Management

Besides furthering justice, a uniform continuance policy assists the management of the court by assuring the movement of cases through the court as scheduled. Overall, a uniform continuance policy makes all participants in the justice system aware that the court is serious about its business and that the court and participants should expect scheduled events to take place as previously arranged. Such expectations work to support a case-flow management program which attempts to control delays in the adjudication process. When continuances are granted leniently, both judges and attorneys expect delay, may consequently be unprepared, and, therefore, cause further delay. This cycle impedes case flow, defeats a case-flow management program, and thereby impedes the distribution of justice.
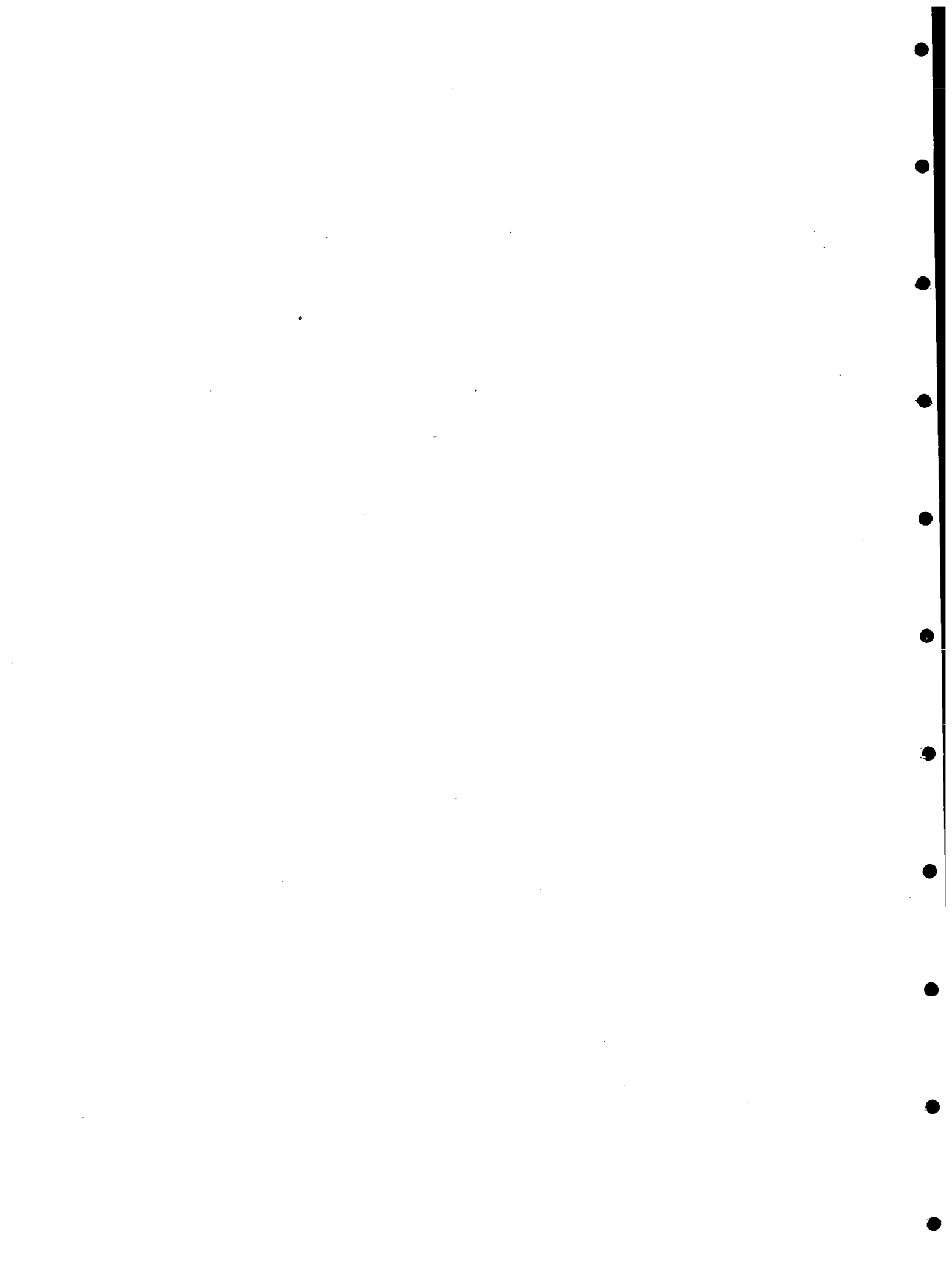
A court using a case-flow management information system can also eliminate calendar calls, another cause of needless delay in court. The actual oral calling of cases in a courtroom by a judge or clerk can be confusing, unproductive activity. The response of attorneys to the call of a case is very frequently "continued." Because a continuance is usually granted before the call, the case need not be called at all. When caseflow management information systems are used, a court can eliminate calendar calls and still monitor cases, including the reasons given for continuances.

The lack of a uniform continuance policy has negative effects on all participants in the justice system. In the first place, ease of continuances allows the control of case flow to pass from the judges to the attorneys. Besides subverting the authority implicit in the structure of the court, attorney domination of court case-flow through unrestricted continuances usually results in wasted time of judges, witnesses, jurors, and the attorneys themselves. Not only should judges control the management of the court's business, but judges, rather than attorneys or court personnel, should rule on continuances, because the judge, as the only neutral figure in the justice system, can best decide whether continuances should be granted. Decisions regarding continuances require determining whether the scheduled court event can proceed if the continuance is denied, the adequacy of the reasons given, and the possible effects on parties from
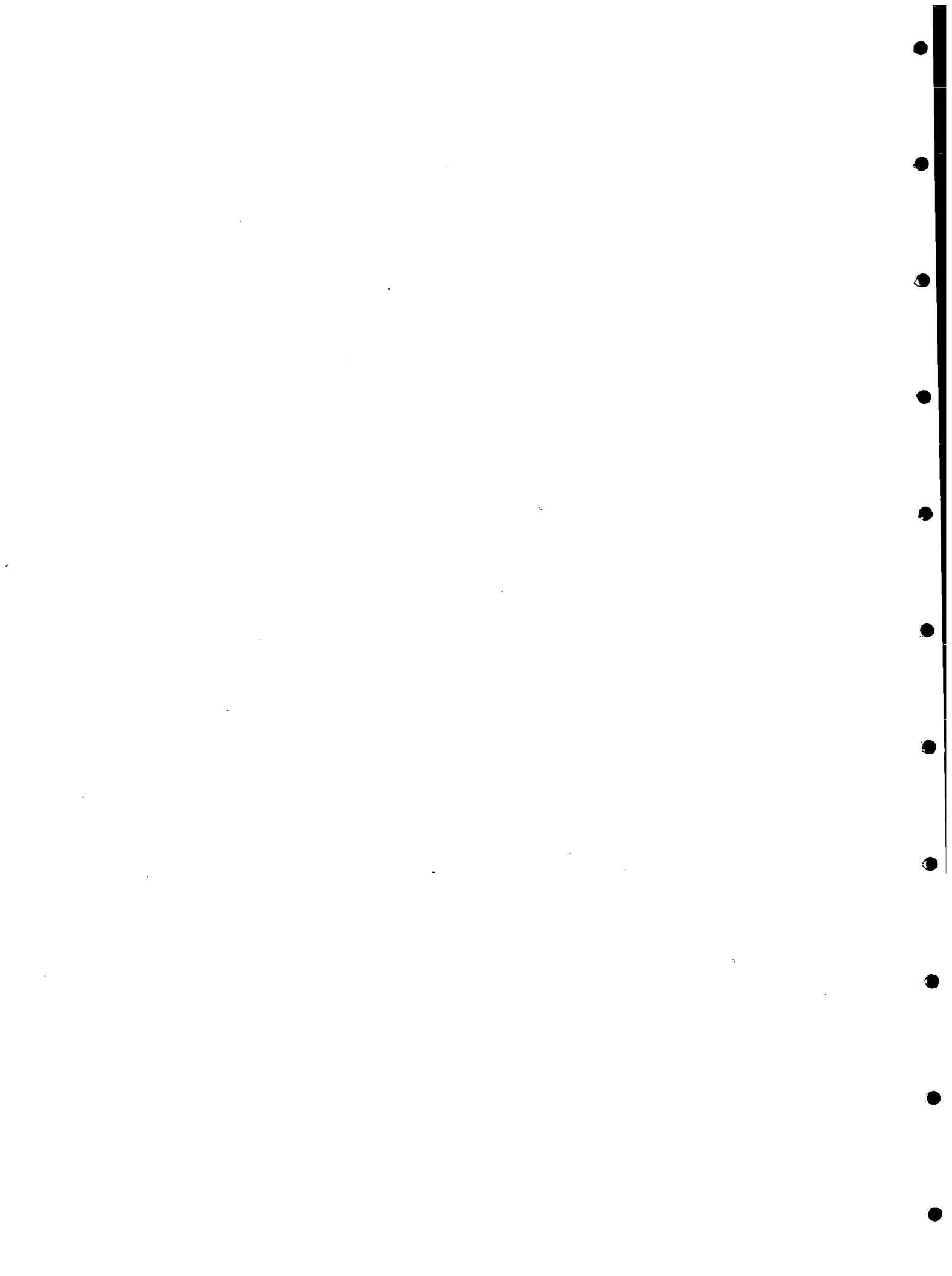
granting or denying the continuance. Furthermore, only
judges, not attorneys or court personnel, are in a position to
insure uniform administration of a continuance policy. There-
fore, the court should itself set and control a uniform con-
tinuance policy to avoid needless delay.

Lack of a uniform continuance policy often unnecessarily
inconveniences witnesses, who arrive at court only to learn
that a continuance has been granted. Such delays interfere
with the distribution of justice by affecting both the coop-
eration and the memory of the witness. Delay caused by fre-
quently granted continuances can "wear out" prosecution
witnesses so that they refuse to cooperate. When cases are
continued from date to date, witnesses become apathetic or
angry about the inconvenience of having to reschedule their
own activities to get to court, only to learn that the court
action will not take place (Chicago Crime Commission, 1974).
In Cannavale and Falcon's study of witness cooperation (1976),
more than half of the witnesses had their cases continued,
and one-third of the witnesses experiencing such delay were
not offered explanations for the postponements.
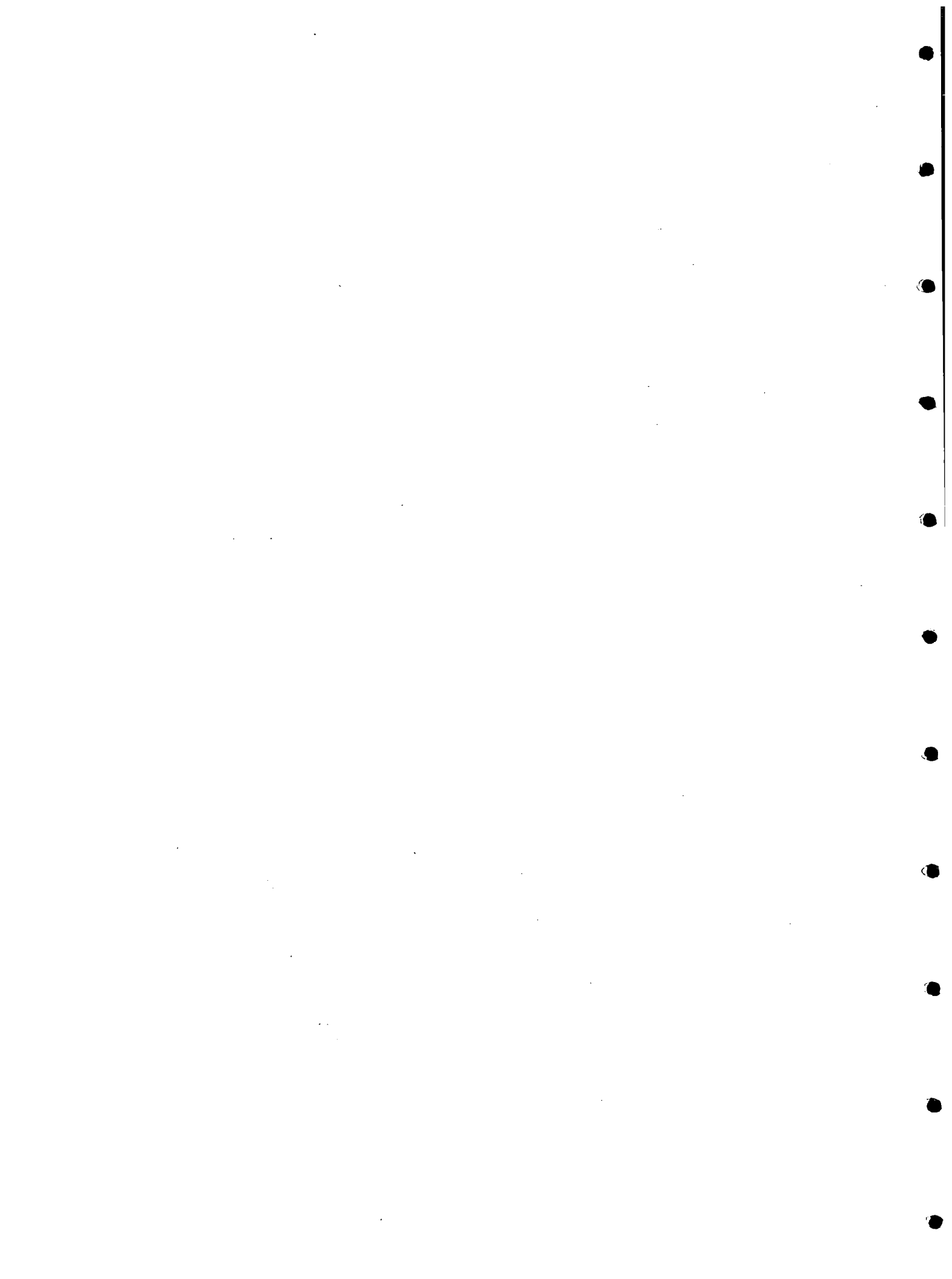
Furthermore, excessive delay affects witnesses' memor-
ies which may be clouded by the passage of time. Facts may
then not be ascertainable, thereby restricting efforts to
determine the truth in the pursuit of justice. Concern for
participant convenience is not thus merely a courtesy for the
court to exercise, but rather is a means to insure the distri-
bution of justice.
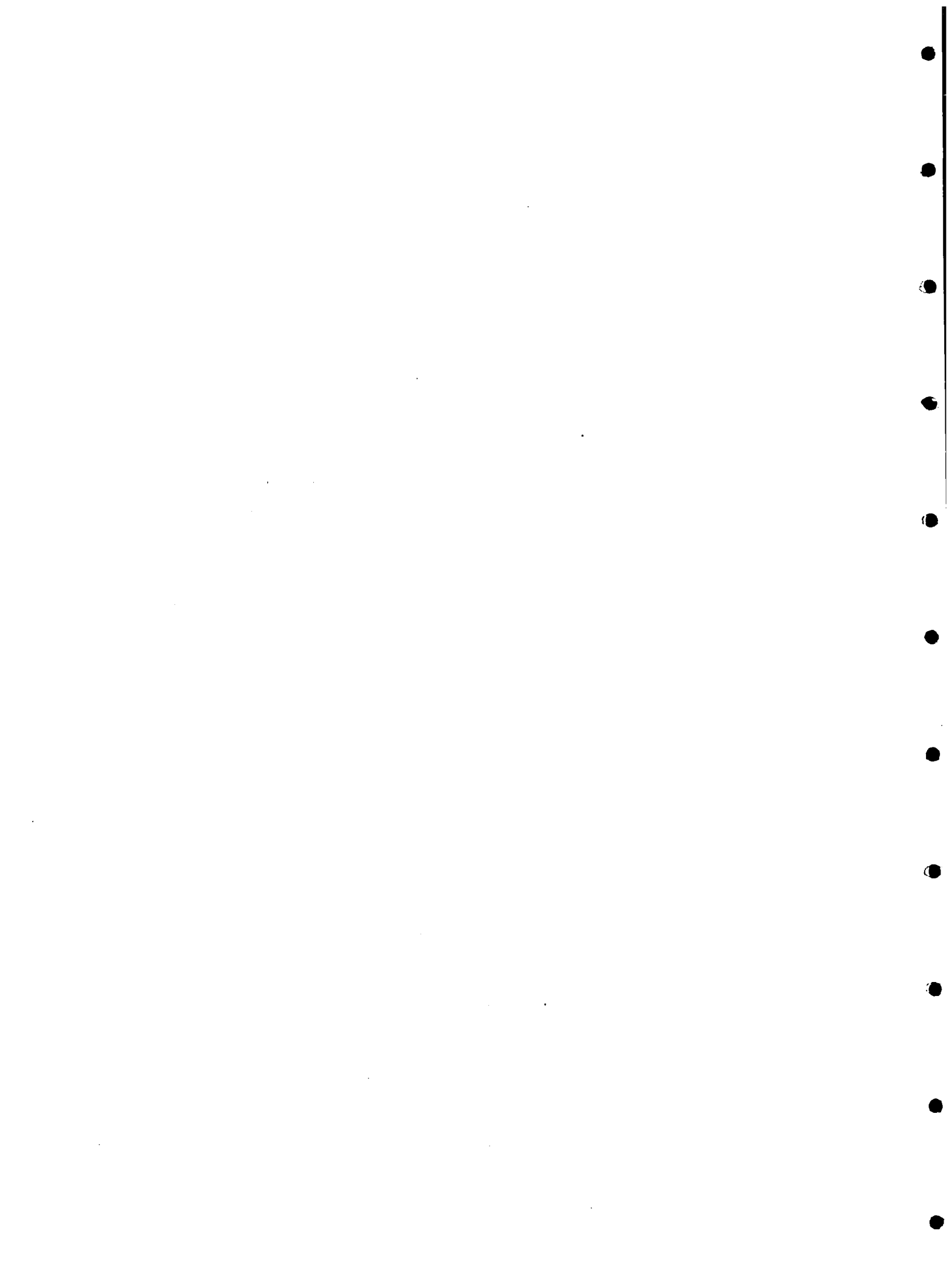
Because both case-flow management and court scheduling attempt to insure access to the court, applying stringent standards for continuances will decrease delay and assure equal treatment to litigants in gaining access to the court. Under a lax continuance policy, defendants knowledgeable about the criminal justice system can conceivably use continuances to wear out prosecution witnesses, thereby decreasing the probability of conviction, or to retain or change lawyers to gain even greater delay. Such defendants can also use delay to negotiate a plea, thereby setting their own penalty. On the other hand, delays can be especially onerous for criminal defendants detained pretrial. When great delay occurs, such defendants bear a serious burden of loss of liberty and decreased ability to assist in their own defense.

These examples suggest that lack of a uniform continuance policy may be a deterrent to justice. Unlike the other issues which involve balancing several conflicting objectives of value to the court, administering a uniform continuance policy can only support the efficient operation of the court.

The need for a court to review and monitor its continuance policy is clearly demonstrated by some fo the answers to a questionnaire administered to the judges of the Wayne County Municipal Court, Civil Division, in Detroit, Michigan.

When asked if the court should promulgate a well-structured
continuance policy, all 20 judges responded affirmatively.
When asked who should grant continuances, the responses were
as follows:

	Yes	No
Individual Judges	2	5
Assignment Office	0	7
Chief Judge	20	0

These last responses are interesting because they suggest
that the court was not in control of its own system. Though
no judge favored having continuances granted by the assignment
office, in fact over 40 percent of the continuances in the
court were granted by that office. Administering a uniform
and structured continuance policy is very difficult when per-
sonnel of differing authorities and position make continuance
decisions.

A change from a lenient to a strict continuance policy
will have different effects on delay and court time. Because
leniency in granting continuances results in delay but little
court time, a strict policy may reduce delay but increase court
time necessary for explanation of the reasons for requesting
a continuance. The overall effect, however, should be a far
more substantial net decrease in delay because continuances
will be requested only when needed, if attorneys recognize a
structured policy and thus not apply for groundless contin-
uances.
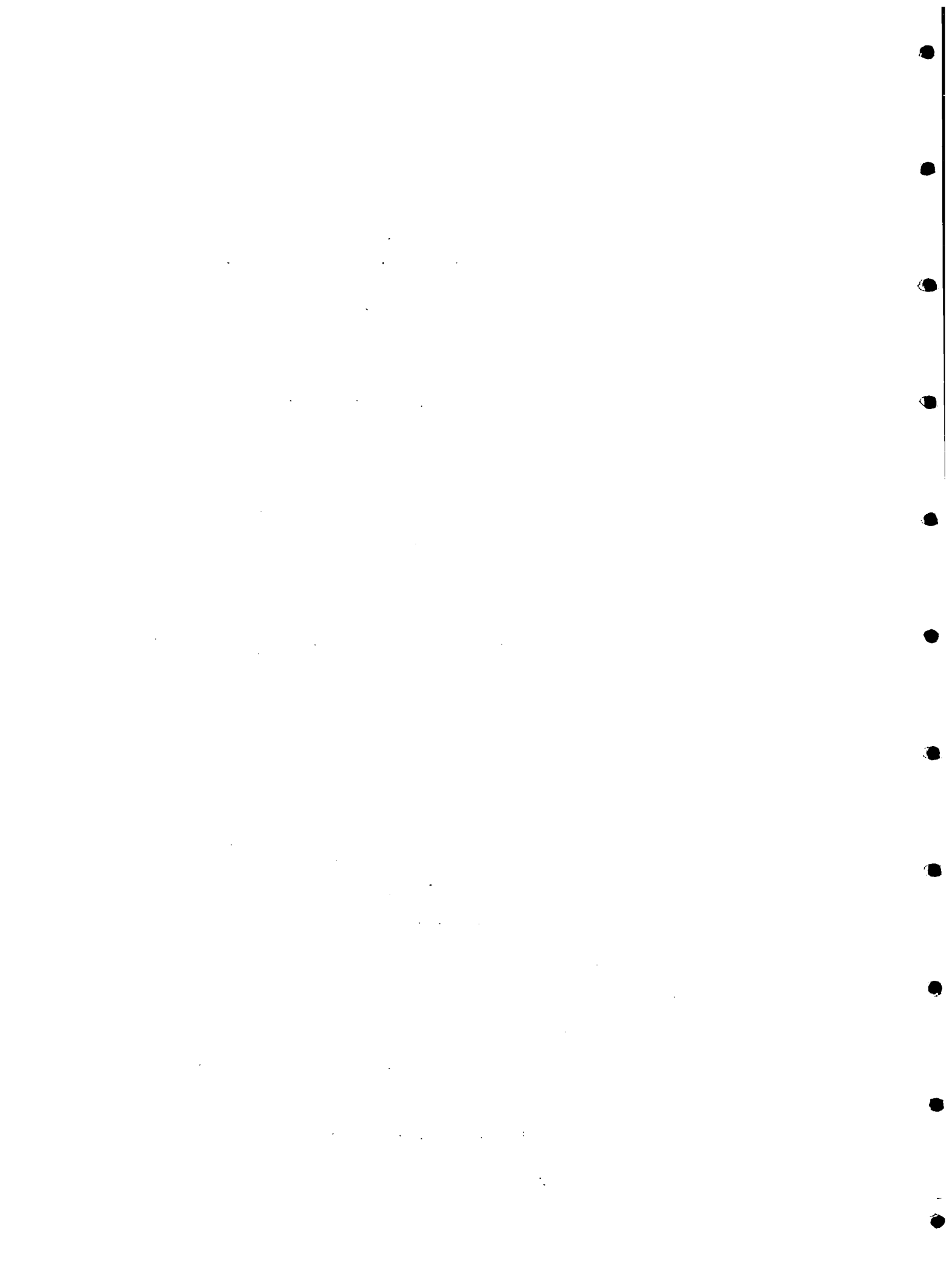
Guidelines for Developing a Continuance Policy

Court rules, statutory law, and case law can be consulted for guidelines relevant to the development of continuance policy.

Court rules

Court rules usually give details of procedural information only, such as to whom and in what time limits requests for continuances are to be made. These rules contain vague criteria, if any, for granting the motion for continuance. A continuance, if properly applied for, is often to be granted if it is found "necessary to prevent manifest injustice" (D.C. Superior Court Criminal Rule 111). In some courts, the reason for requesting the continuance need not be written on the motion form.

Statutory law

Statutory continuance provisions are often as general about continuances as the court rules. The Federal Speedy Trial Act of 1974, 81 U.S.C.A. §§3161 et seq. (Supp. 1976), Pub. L. No. 93-619, 88 Stat. 2076, contains criteria for granting continuances in federal criminal trials. It also requires a statement on the record of reasons for granting them, and sanctions for their misuse by attorneys. The basis for granting a continuance should be: "[The judge's] findings that the ends of justice served by taking such action outweigh the best interest of the public and the defendant in a speedy trial." [18 U.S.C.A. §3161(h)(8)(a) (Supp. 1976).] Factors the judge should consider in determining whether to grant a
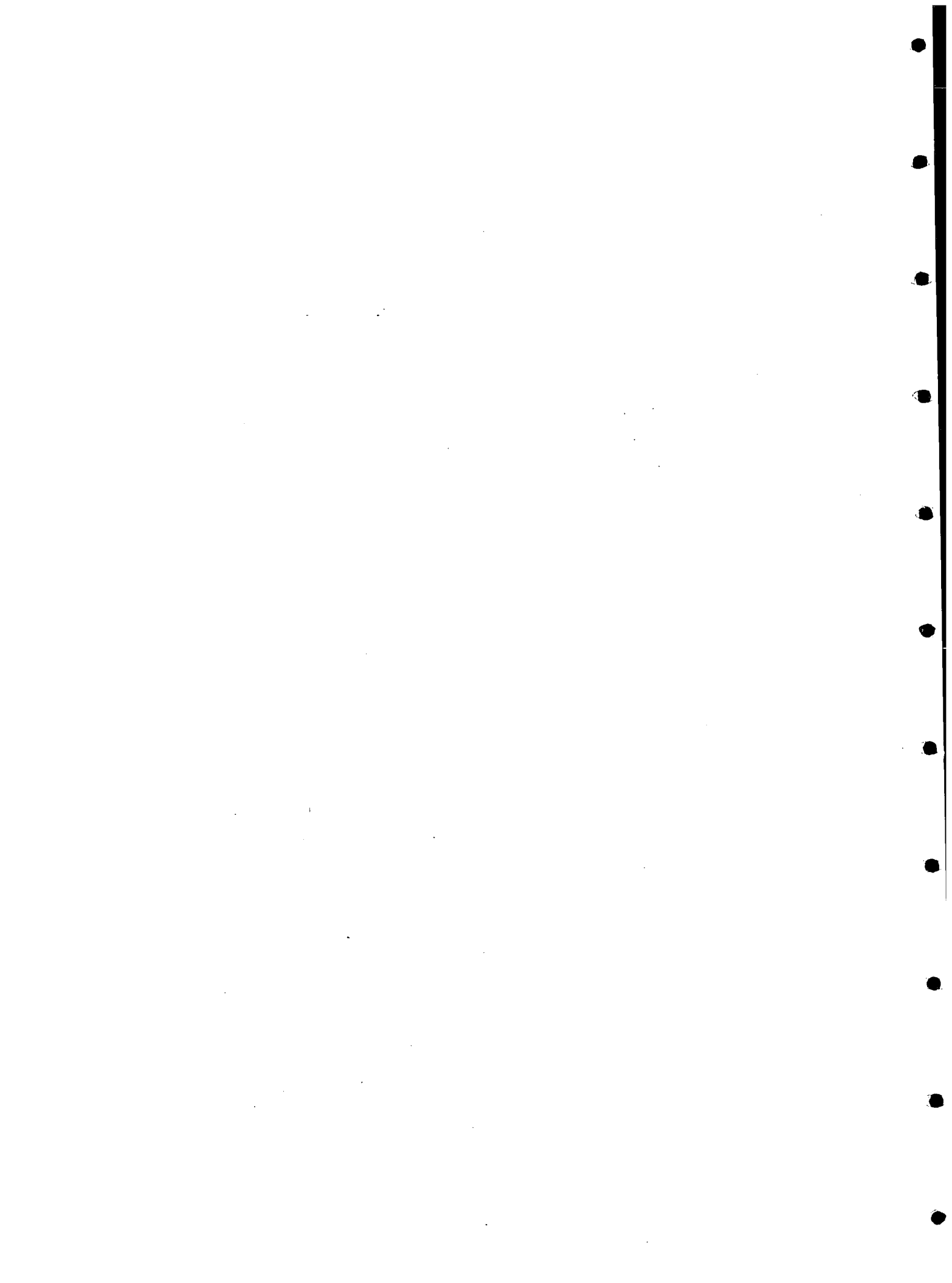
continuance include:

(1) Whether it would be impossible to continue the proceeding if the continuance were denied [18 U.S.C.A. §3161(h) (8)(B)(i) (Supp. 1976)].

(2) Whether the case is so complex or unusual that additional time is needed for adequate preparation [18 U.S.C.A. §3161(h)(8)(B)(ii) (Supp. 1976)].

(3) Whether the facts to be determined by the grand jury were unusually complex and caused delay [18 U.S.C.A. §3161(h) (8)(B)(iii) (Supp. 1976)].

The Speedy Trial Act excludes from its required limits periods of delay caused by continuances granted in accordance with the standards discussed above if the court sets forth in the record reasons for granting the continuances. Continuances granted because of court congestion and some kinds of government-caused delay are not to be excluded from the required time limits for a speedy trial [18 U.S.C.A. §3161(h)(8)(C)].

Case law

General principles of law regarding continuances are set forth in case law. These principles have been summarized [United States v. Uptain, 531 F.2d 1281 (5 Cir. 1976) at 1285-1286] as follows:

> A motion for a continuance is addressed to the sound discretion of the trial court, and its ruling will not be disturbed on appeal unless there is a showing that there has been an abuse of that discretion. E.g., Avery v. Alabama, 803 U.S. 444, 60 S. Ct. 321, 84 L.Ed. 377 (1940); United States v. Gidley, 527 F.2d 1345 (5 Cir. 1976); United States v. Sahley, 526 F.2d 913 (5 Cir. 1976); United States v. Moriarity, 497 F.2d
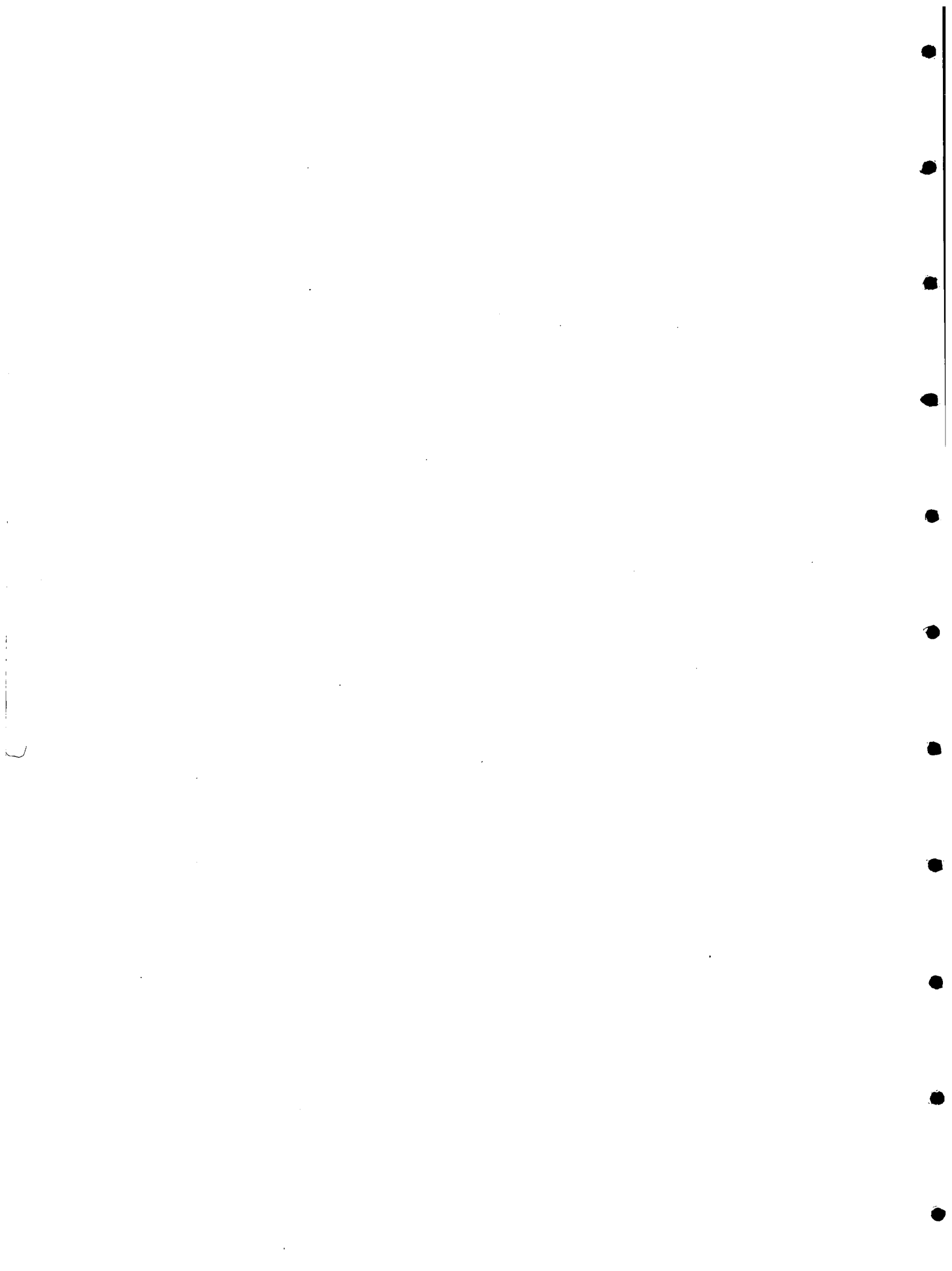
486 (5 Cir. 1974). This issue must be decided on
a case-by-case basis in light of the circumstances
presented, particularly the reasons for continu-
ances presented to the trial court at the time the
request is denied. Ungar v. Sarafite, 376 U.S. 575,
85 S.Ct. 841, 11 L.Ed. 2d 92] (1964); United States
v. Sahley, supra; McKinney v. Wainwright, 488
F.2d (28 (5 Cir.), cert. denied, 416 U.S. 973,
94 S.Ct. 1998, 40 L.Ed.2d 562 (1974).

Denials of motions for continuances in cases in which the

defendant is acquitted are never scrutinized because appeals

can only be taken from a judgment of conviction. A search for

guidelines to a continuance policy in case law must recognize

that much controversy over continuances never gets as far as

reported appellate cases.

Certain categories of reasons offered for continuance mo-

tions require special scrutiny to insure the uniform adminis-

tration of a court's continuance policy.

Withdrawal or discharge of counsel. Continuances requested

to permit an attorney to withdraw from a case or to allow a

client to discharge an attorney need careful scrutiny before

a judge decides to grant or deny the motion. Sudden attempts

to withdraw or discharge on the day of trial or shortly before

are frowned upon by most judges, who feel that any conflict or

dissatisfaction must have been known to the client and attorney

long before the trial date. Thus, withdrawal or discharge

should have taken place sooner. An attorney might wish to

withdraw because (s)he has not received payment of the fee.

Though some judges identify with the attorney's problem and

easily grant continuances to allow more time for fee collection

[Levin 197_: 106-107], others do not. In United States v.
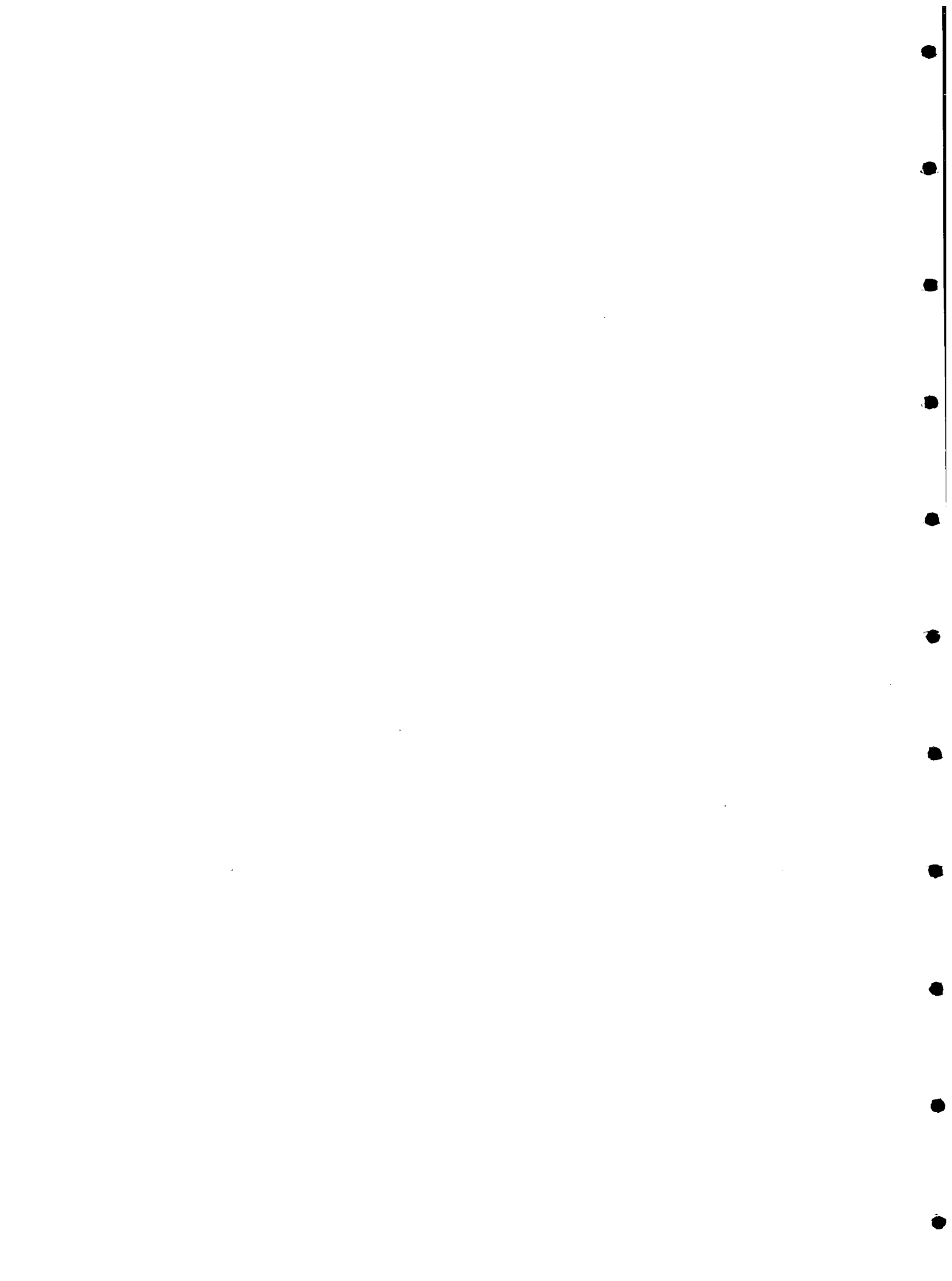
Uptain, 531 F.2d at 1290, the appellate court stated, while

declining to find abuse of discretion in denial of the motion,

that the trial judge

> was entitled to take into account both the
> opportunity that counsel did not take advan-
> tage of, to obtain earlier payment from Up-
> tain, and the prejudice to Uptain in the eyes
> of the jury that might result if the attorney
> who began his direct examination suddenly dis-
> appeared. [Citations omitted]

A general rule that the right to have counsel of one's

own choosing may not be used for the purposes of delay (Uptain

531 F.2d at 1290) warns clients not to shift attorneys as a

delaying tactic. Some unethical attorneys may participate in

delaying tactics of clients by taking cases from which they

intend to withdraw, but higher professionalism should be en-

couraged by the bar rather than by judicial sanctions.

Even if a trial judge grants an attorney's motion to

withdraw, it cannot be assumed that a continuance will be

granted the client. Even though forced to continue trial

without an attorney, a defendant in such a situation may not

be denied due process rights. In one case [Ungar v. Sarafite,

376 U.S. 575 (1964)], the defendant, a lawyer, was denied a

continuance after his attorney was allowed to withdraw. The

defendant claimed he needed more time to get medical proof

and expert testimony. The trial judge denied the motion,

stating that no reason was given why the medical proof was

not secured prior to the time of the motion for continuance.

Also, no information regarding the name of the expert witness

or the expected testimony was offered. The Supreme Court

found no denial of due process, holding that deference is

is due to a trial judge's decision to grant or deny a continuance.

An attorney, arrested during his client's trial, requested a continuance because he was emotionally upset as a result of his arrest. The motion was denied; the judge declared that the attorney knew of the possibility of the arrest, that no effort was made to provide substitute counsel, and that the trial, not complex, was almost over. The court of appeals affirmed the conviction, finding no abuse of the trial judge's discretion in the denial of the motion for continuance. The appellate court found that the defendant was effectively represented by counsel after the motion for continuances was denied and that the defendant received a fair trial [United States v. Ruiz, 533 F.2d 939 (5 Cir. 1976)].

Physical or mental condition of parties, counsel, or judge. As indicated above, not all claimed infirmities will result in a continuance being granted. Supporting medical affirmation may be required. A mandatory rule that medical affidavits be provided would not be necessary where a court continuance policy is in effect. The bias against granting continuances in that context would restrain the judge, while allowing him or her discretion to decide whether a condition existed serious enough to grant the continuance.

Illness or other problems of judges need not result in continuances under a master assignment system, because the

case can be easily shifted to another judge. A continuance would likely occur under an individual assignment system.

Adequate preparation time. When a continuance is requested because more time is needed to prepare a trial, the judge should consider the following factors:

. The amount of time which was available prior to the request.

. The likelihood of prejudice from a denial of the continuance.

. The accused's role in shortening the effective preparation time.

. The degree of complexity of the case.

. The availability of discovery.

. The adequacy of the defense actually provided.

. The skill and experience of the attorney with the accused or the alleged crime.

. The representation of the defendant by the attorney that accrues to his/her benefit.

[United States v. Uptain, 53] F.2d at 1286-1287.]

Although these factors are presented from the point of view of a criminal case, with some adaptations they might also be considered for civil cases.
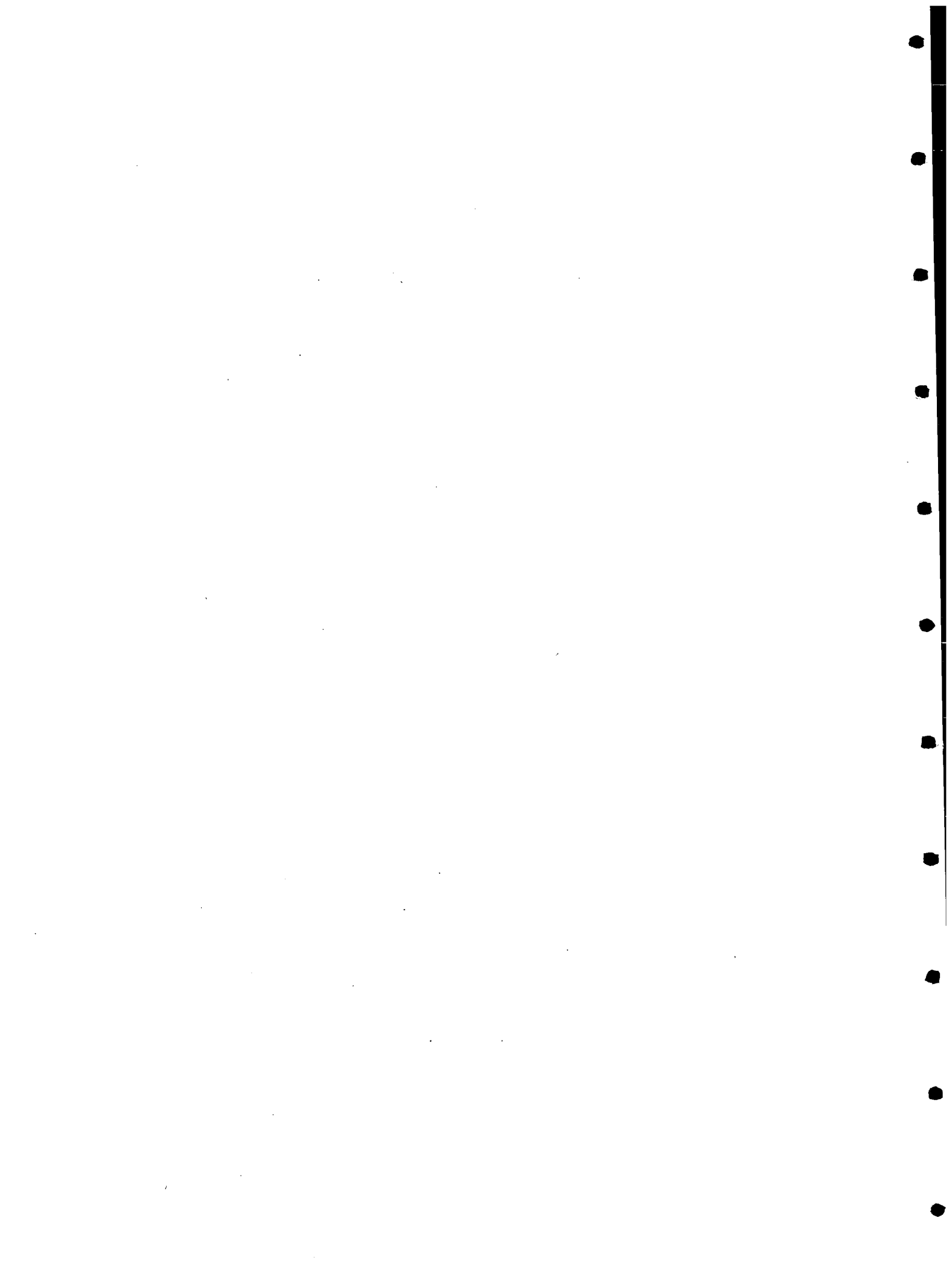
According to ABA Standard 1.3 Relating to Pleas of Guilty, adequate time, provided by granting continuances if necessary, should be given to defendants who plan to enter a plea of guilty. This preparation time before a plea would be used for plea discussions, investigations of law and fact, and client-

counsel discussions related to a possible plea. [ABA Pleas
of Guilty, 1968: 21-25.]

The factor of the complexity of the case is an area of
dispute. Defense attorneys may believe, for instance, that
their street crime cases are complex, but if judges do not
consider such cases complex, continuances to allow adequate
time to prepare will be denied. No itemized list of cases
deemed complex exists; for the purposes of the Speedy Trial
Act, prosecutions under the antitrust, securities, and tax
laws seem to be complex.

To move a continuance, an attorney must state reasons
for not being prepared and give specific information regard-
ing the need for more time. Continuances may be denied even
if this information is provided but are almost certain not
to be granted if the details are not presented when the motion
is made. In a bank robbery case [United States v. Gidley,
527 F.2d 1345 (5 Cir. 1976)], a continuance was requested for
more preparation time. The appellate court found no abuse of
discretion by the trial court in denying the motion, stating
that no specific information regarding the need for more time
had been given at trial or on appeal. The attorney had stated
he had mistakenly believed the dates of a motions hearing and
the trial to be one week later than the date they were held.

Locating, interviewing, and subpoenaing witnesses. When
a continuance is requested in order to interview and subpoena
witnesses, the judge should consider the following factors:

B-13

The diligence of the defense in interviewing witnesses and procuring their presence.

. The probability of procuring their testimony within a reasonable time.

. The specificity with which the defense is expected to be favorable to the accused.

. The unique or cumulative nature of the testimony [United States v. Uptain, 531 F.2d at 1287].

A general rule regarding continuances to locate witnesses was stated in a case in which the continuance was denied and the defendant convicted to conspiracy to import, and importation of, cocaine:

> A movant must show that due diligence has been exercised to obtain the attendance of the witness, that substantial favorable testimony would be tendered by the witness, that the witness is available and willing to testify, and that the denial of the continuance would materially prejudice the defendant. [United States v. Miller, 513 F.2d 791, 993 (5 Cir. 1975)].

Even when the request was made in order to secure the defendant's only witness, the continuance was denied becuase the trial court judge believed any testimony from that witness (a co-conspirator/informant) would only be cumulative and not helpful to the defendant. Strong testimony had been given by other witnesses in that case [United States v. Bey, 526 F.2d 85 (5 Cir. 1976)].

These factors and this general rule, though developed in criminal cases, could be adapted for use in civil cases.

Surprise at trial. A continuance could be a sanction
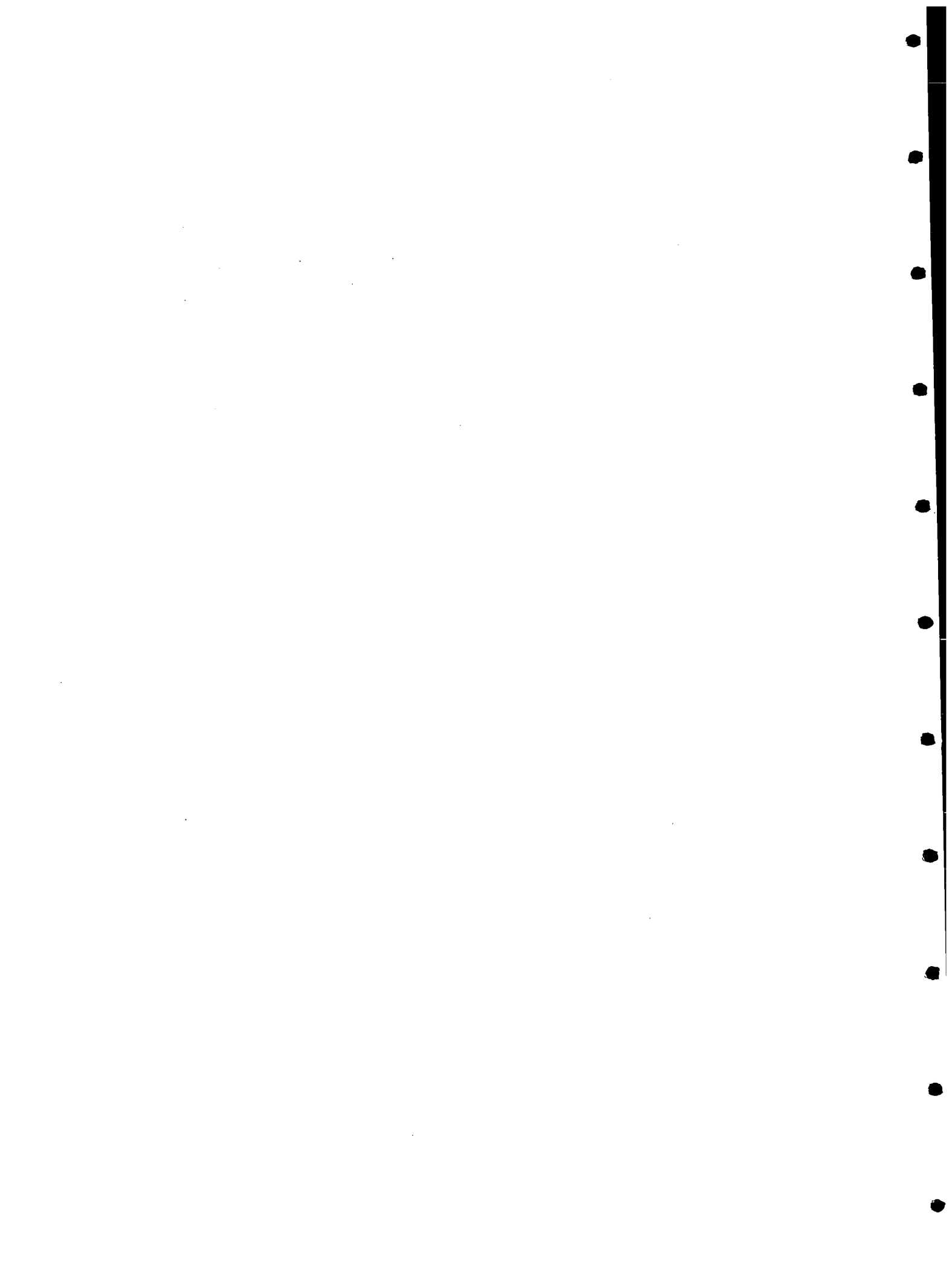
invoked by a court which learns that a party has failed to comply with a discovery rule or an order regarding discovery. The continuance would be granted when a party is surprised at trial because of a failure of the other side to disclose information [ABA Standard 4.7 Relating to Discovery and Procedure before Trial 1970: 106-108].

In a murder trial a codefendant entered a plea of guilty and became a witness for the State. The defendant's motion for continuance because of this surprising event was denied by the trial judge. In upholding denial of this motion, the appellate court said that the defendant must be genuinely surprised. Because the defendant knew of the possibility of a plea three days prior to trial and because no different outcome was indicated if the continuance had been granted, the denial of the motion for continuance was not in error [Wampler v. State, 553 P.2d 198 (Okla. Crim. App. 1976)].

Pretrial publicity. Prejudicial publicity is a ground for a motion for continuance, according to ABA Standard 3.2 Relating to Fair Trial. After extensive media coverage of the first trial in a whiskey still/tax fraud case, which ended in mistrial, a continuance was requested in order that the second trial would be a fair trial. The motion was denied, and the appellate court, determining that there had been neither prejudicial publicity nor actual prejudice on the jury panel, upheld the denial [United States v. Miller, 500 F.2d 751 (5 Cir. 1974), re'd on other grounds, _____ U.S. _____, (19___)].
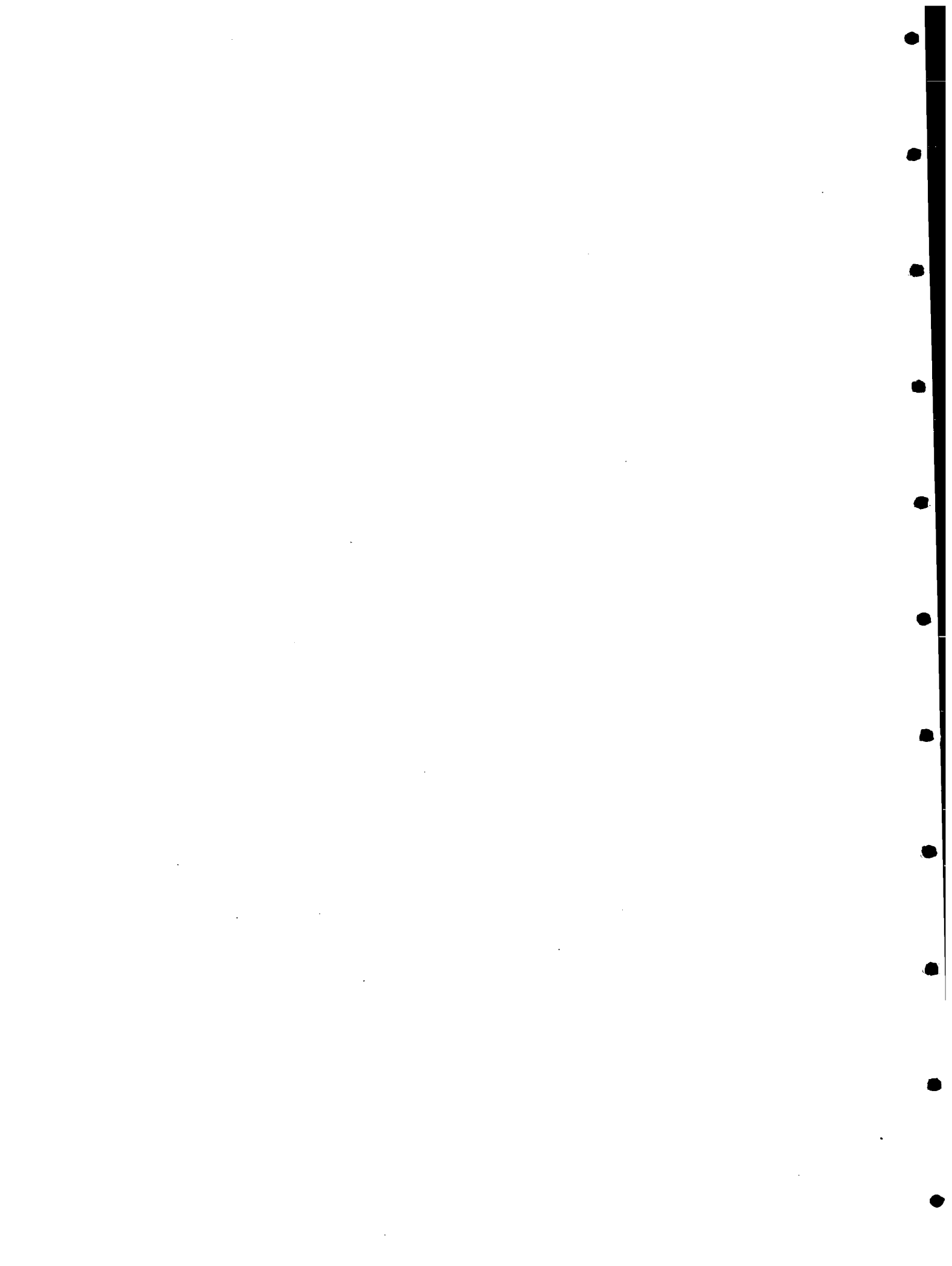
Other Reasons

Some flexibility must be allowed in a continuance policy so that judges can grant continuances because of unforeseen events. Weather conditions, mechanial or other breakdowns in the courthouse, and so forth might necessitate a continuance. As long as the policy against groundless continuances is clear, abuses of the discretion left to judges to grant continuances are less likely to occur than when there is no well-structured policy.

Implications

In order to administer a uniform continuance policy, a court must first become aware of its own practices: the court needs to know who actually grants continuances, how many are granted, how many are denied, and the reasons justifying granted continuances. The court may then realize that continuances, especially uncontested ones, are very easy to grant; questioning the reasons for a continuance motion requires that a judge be scrupulous and impartial, even though a judge may be familiar with the attorney who makes the motion. The court may further recognize that continuances, both legitimate and perfunctory ones, cost the court something in terms of delay and wasted scheduling procedures. Because this cost affects the distribution of justice, the court may need to revise its continuance policy to insure its uniform administration.
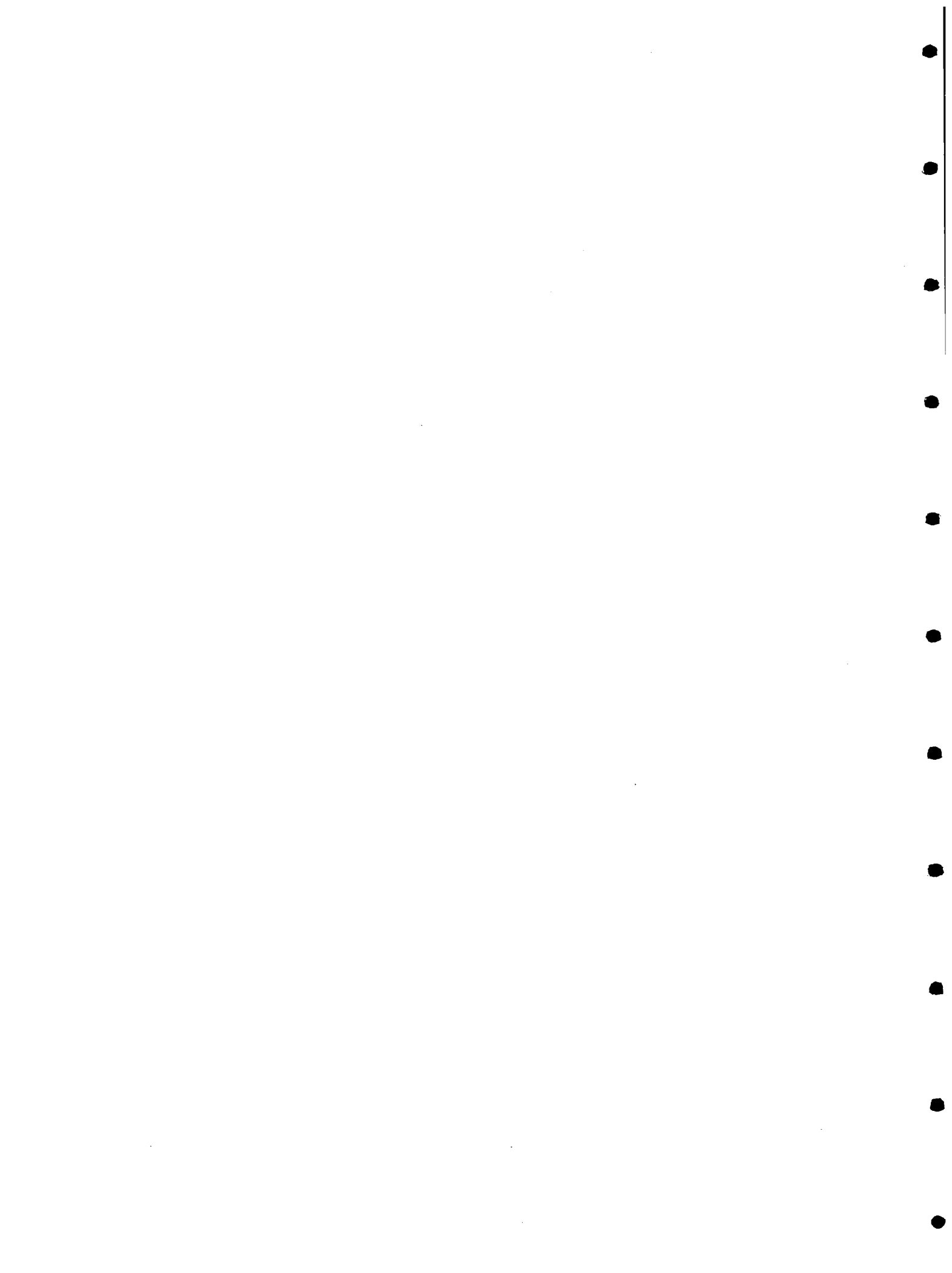
Three possible revisions for an improved continuance policy are: (1) the centralization of authority for granting continuances; (2) the establishment of categories of legitimate reasons for continuance motions; and (3) the use of a written form for continuance motions.

Obviously, the more widespread the practice of court personnel of different authority granting continuances, the less uniform the application of a continuance policy. If only judges have the experience and the position to decide the merits of a continuance motion, only judges, or perhaps one judge, should make those decisions.
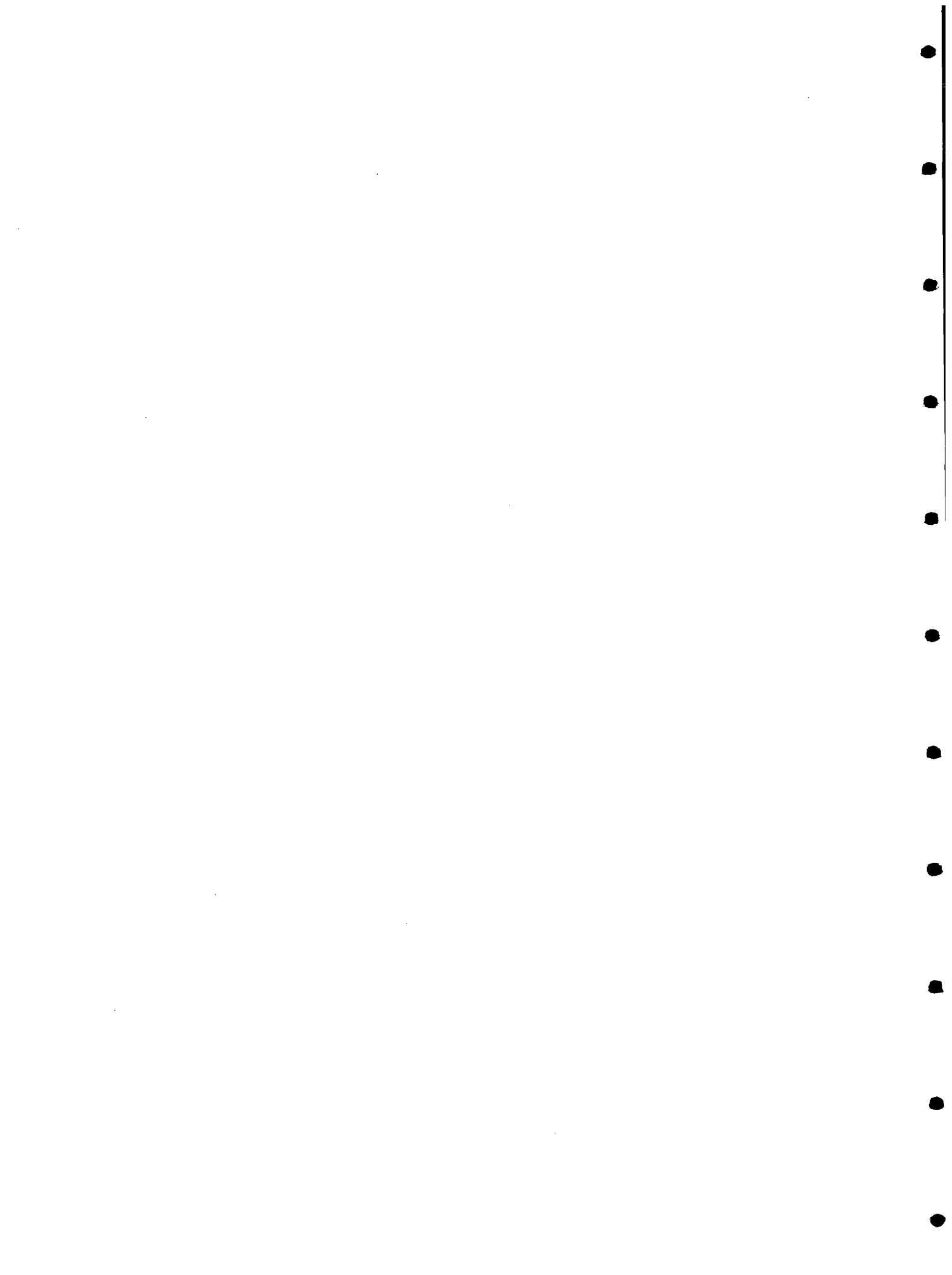
ATTACHMENT C

INFORMATION REQUIREMENTS OF THE
ASSIGNMENT CLERK'S OFFICE
WAYNE COUNTY

ATTACHMENT C

INFORMATION REQUIREMENTS OF THE
ASSIGNMENT CLERK'S OFFICE
WAYNE COUNTY

General Overview of Office Operations

It is the responsibility of the Assignment Clerk's office
to schedule all Wayne County Circuit Court criminal and civil
cases for appropriate court hearings and trial. All cases,
criminal and civil, come to the attention of the Assignment
Clerk's office after they have been processed through the County
Clerk's office and recorded on the court's automated informa-
tion system. Printouts from this system listing all cases in
numerical order are made available to the Assignment Commis-
sioner's staff to annotate for keeping track of the status of
civil cases. Index card files and calendar books are used to
track criminal cases. An alphabetical case suffix code is as-
signed to each docket number to identify the type of case. A
complete listing of these codes is shown in Attachment 1.

The civil case load of the office is divided into four dif-
ferent categories, each of which is processed somewhat dif-
ferently. These categories include: (1) contested divorces,
(2) uncontested divorces, (3) paternity cases, and (4) all
other civil actions. The time frames are different in schedul-
ing all these cases for court hearings and trial, if applic-
able. Section ___ of this report provides a detailed descrip-
tion of the scheduling process from fime of filing answer
through final disposition of the case.

The felony case load of the office is given priority in
scheduling. Cases are referred to the Assignment Clerk from
the lower court through the County Clerk's office after a pre-
liminary exam in the lower court. The arraignment date is pre-
set by the lower court and is the date used by the Assignment
Clerk unless there is a conflict, in which case the arraignment
date can be rescheduled. Following arraignment, it is the As-
signment Clerk's responsibility to schedule all trial dates.
See Section ___ of this report for a detailed breakdown of
felony case processing.

In addition to scheduling cases for court hearings, the
Assignment Clerk also has responsibility for scheduling panels
for all cases which have been set for mediation either by order
of the court or upon application by attorneys for the plaintiff
or defendant. The Assignment Clerk must establish in the media-
tion panel, collect mediator fees, gather together evidence pre-
sented by all parties, send out all notices and issue a report
of the findings of the panel. See Section ___ for a detailed
explanation of the mediation operation.

C-1

Case Processing Procedures

A. **Civil Cases**

1. Uncontested Divorces (160/week)

The following procedures are followed in processing an uncontested divorce by the Assignment Clerk's office.

(a) A yellow "At Issue Praecipe" (Figure 1) form is received from the County Clerk's office with the name of the judge preassigned.

(b) Praecipe filed by case number order.

(c) After 60 days from date of felony (cases where no children are involved) or 6 months from date of filing (no children involved) praecipe pulled from file and sent to County Clerk's office.

(Clerk's office pulls file and sends along with praecipe to friend of court for review.)

(Friend of court sends file to Assignment Clerk's office.)

(d) Case is assigned to a judge. (This usually is same judge as assigned by County Clerk.) The only exceptions are cases from Wayne County Legal Services or the Family Law Center. Judges for these cases are picked at random by Pat Kelley with judge's concurrence. These cases are normally heard on a Wednesday afternoon.

(e) Case papers then turned over to Kathy Murpny for assignment of settlement conference and trial dates. (Fifteen assigned/day-___ weeks in advance.)

(f) Yellow settlement conference notices (Figure 2) are prepared and sent to attorneys for the plaintiff and defendant (Gloria Wessinger).

(g) Notice of assignment (Figure 3) is prepared and inserted into file (Gloria Wessinger).

(h) Case added to Divorce Hearing Calendar for that date (Gloria Wessinger).

(i) Settlement conference.

C-2

(j) Trial at 9:00 am of day following settlement conference.

(k) Disposition stamped on At Issue Praecipe returned to Assignment Clerk's office.

(l) Praecipe used as source for posting computer printout and then it is filed in judge's disposition box for manual statistical report of dispositions (Gloria Wessinger).

2. Contested Divorces

(a) A blue "At Issue Praecipe" form (Figure 1) is received from the County Clerk's office with the name of the judge preassigned.

(b) Case entered on daily listing to friend of the court for clearance to proceed.

(c) Praecipe checked off in computer book as being received. Praecipe stamped and filed, in pending clearance file, by number.

(Friend of the court clears the case and places it on a cleared case listing and returns listing to Gloria Wessinger).

(d) Praecipes for cases on cleared case listing pulled from pending clearance file, stamped "CLEARED" and refiled in cleared file by case number.

(e) Several (15) pulled per day and assigned trial date six weeks in advance (Kathy Murphy).

(f) Blue letter to attorneys (Figure 4) announcing trial prepared and sent out (Gloria Wessinger).

(g) Notice of assignment prepared without name of judge (Gloria Wessinger).

(h) Judge assigned by Nick Shaheen. Notice of Assignment inserted in file.

(i) Divorce trial calendar prepared (Gloria Wessinger).

(j) Trial.

(k) Disposition stamped on praecipe and praecipe returned to Assignment Clerk's office.

C-3

(1) Disposition from praecipe posted in computer books and filed in judge's disposition box for manual statistical report of dispositions.

3. Civil Cases (Other than Divorce or Paternity)

(a) A white "At Issue Praecipe" (Figure 5) prepared by the defense attorney is forwarded to the Assignment Clerk's office from the County Clerk.

(b) Cards are received and immediately filed by judge and case number where they remain for approximately 30 months.

(c) Eight weeks prior to pretrial conference (PTCN) oldest cases pulled from general pending case file, scheduled, and moved to pending PTCN file (done by Kathy Murphy). Scheduled on Tuesdays at 2:15 pm-- three scheduled/judge (26 judges).

(d) Notice of Pretrial Conference (Figure 6) prepared (Gloria Wessinger) and sent to attorneys.

(e) Pretrial Conference Calendar typed (Gloria Wessinger).

(f) On day before PTCN, "At Issue Praecipes" pulled and sent to courtroom (Kathy Murphy).

(g) PTCN (40 percent of cases drop out at this stage-- settled, dismissed, remanded to lower court). At this point cases may also be ordered into mediation.

(h) PTCN dispositions stamped on "At Issue Praecipe" and it is returned to Assignment Clerk for recording of disposition in computer books (Gloria Wessinger) and filing in the closed case file by judge or in a pending trial file by case number.

(i) Each case is assigned a new judge for settlement conference and trial on the basis of the age of the case and the judge's seniority.

(j) Thirty cases scheduled per day for settlement conference and trial (Nick Shaheen).

(k) Trial calendar typed and Trial Notices (Figure 7) prepared (Lola Stringer) and sent to attorneys.

(l) At Issue Praecipes pulled and filed by settlement conference date. Sent to courtroom prior to case hearing.

C-4

(m) Settlement conference held.

(n) Trial held. Disposition recorded on praecipe and it is returned to Assignment Clerk's office for printout update and filing in judge's disposition file for manual disposition report.

4. Special Actions Possible in Civil Cases

(a) Spinoffs (Nick Shaheen). When more civil cases are scheduled for trial than there are judges available to hear them, the Assignment Clerk has two options. The first is to adjourn the case to another trial date approximately two months later. This procedure is described in paragraph ___ below. The second option is to place the case on a spinoff listing which means it will be heard by the next available judge in case age order. Civil cases placed on spinoff may remain in that status for up to a period of two weeks, and they make up a ready pool of cases. Participants are notified by phone.

(b) Adjournments (Nick Shaheen or Chief Judge). Attorneys may request that the Assignment Clerk adjourn a case to another court hearing date. If the request for adjournment is made more than 10 days prior to the scheduled event, then the Assignment Clerk will normally approve the request. However, if the request is made ten or less days prior to the scheduled event, then the Assignment Clerk will require the attorney to file a motion for adjournment with the Chief Judge. The only exception to this rule is cases scheduled for trial which cannot be heard because of nonavailability of a judge. These cases are then either placed on the spinoff calendar described in the previous paragraph or adjourned on the authority of the Assignment Clerk. In adjourned cases, the Assignment Clerk fills out a sheet indicating the new date (Figure 8) and has all attorneys sign the sheet as evidence of having been informed of the new trial date. The Assignment Clerk will normally just adjourn a case that has been set for trial one time.

(c) Motions. Extended motions are normally heard on Wednesdays and law motions are heard on Fridays. Attorneys are responsible for scheduling motions and must prepare a "Praecipe for Motion" (Figure 9) at least four days prior to the hearing of the motion. Motion praecipes are received by the Assignment Clerk and placed in the court box of the assigned judge.
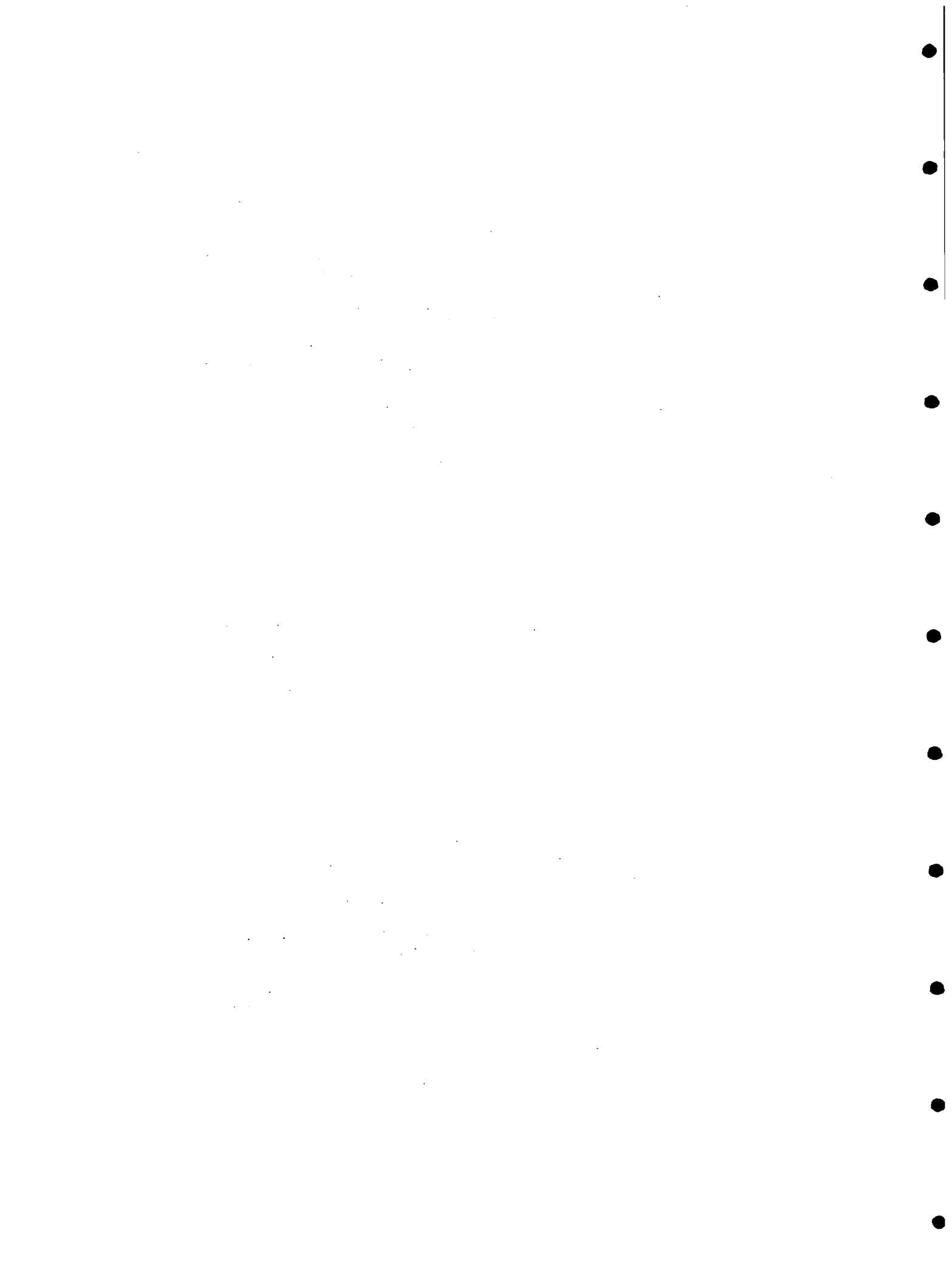
(d) __Mediation__ (Bob Schweiker). Civil cases may be placed into mediation under local court rule 21 in an attempt to settle the case before it goes to trial. There are three sources including by motion, by order of the court, or by stipulation by all parties. Mediation usually occurs prior to or after the pretrial conference. Once a case is placed in mediation, it is processed as follows:

(1) A Request for Mediation (Figure 10) is filled out and given to the Assignment Clerk so that the case may be scheduled for mediation. A judge need not sign the request if the attorneys of record all stipulate to mediation.

(2) A mediation index card (Figure 11) is prepared which indicates whether or not mediation is occurring by court order or stipulation. The card also identifies the case and records the names of the mediators. The mediation panel consists of three people including a judge not connected with the case and an attorney from the Detroit Chapter of American Trial Lawyers and an attorney from the Detroit Defense Counsel Association. Panels are set up by the Tribunal Clerk (Bob Schweiker) in the Assignment Clerk's office. He has a list of available judges and attorneys to sit on these panels. A mediation panel sits two weeks and hears 10 cases/day between the hours of 9:00 am and 12 noon. The panel sits five days per week including holidays. Attorneys for either the plaintiffs or defendants may challenge any member of the panel and seek an adjournment to another panel.

(3) A Notice of Mediation (Figure 12) is sent out (Alleen Haddock) to all attorneys of record instructing them to forward a $35.00 fee for each evaluation to the Tribunal Clerk within 10 days. The notice also informs the attorneys who the members of the mediation panel are, indicates the date and time the panel will hear the case and furnishes instructions on supplying copies of all supporting documentation in the case.

(4) The mediation panel hears the case and sets a settlement valuation. The amount of the valuation is entered on the bottom of the "Request for Mediation" (Figure 10) and all the documentation is returned to the Tribunal Clerk. A "Notice of the Mediation Board's Evaluation" (Figure 13) is then prepared (Alleen Haddock)
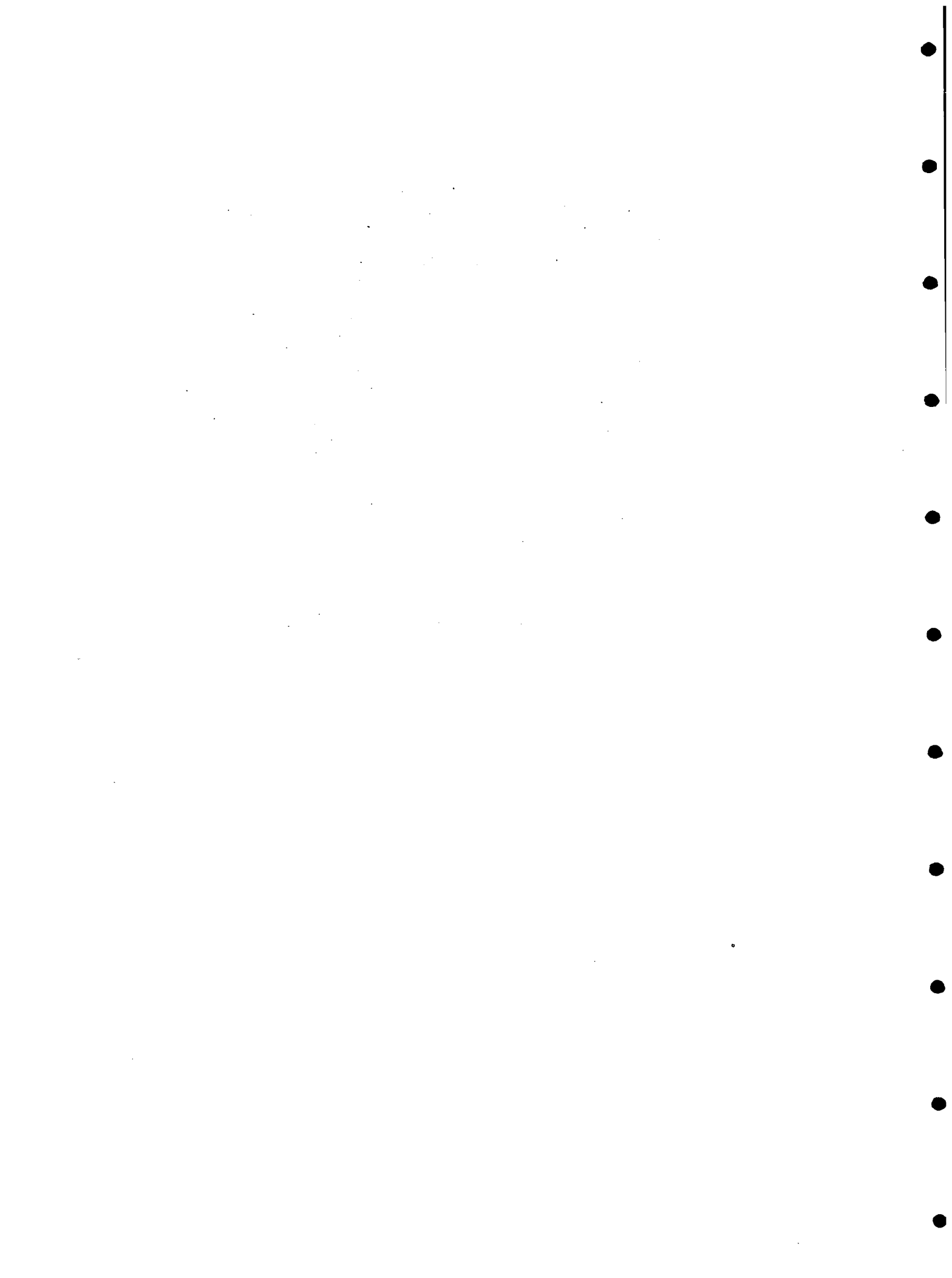
for each attorney notifying them of the panel's valuation of the case and advising them of the amount of the jury verdict that must be obtained to avoid the assessment of court costs if the mediation panel's evaluation is rejected. If the plaintiff rejects the evaluation, a verdict of more than the amount of the evaluation plus 10 percent must be returned to avoid costs. If the defendant rejects the evaluation a verdict of less than the amount of the evaluation minus 10 percent must be returned to avoid costs. The attorneys have 20 days to notify the Tribunal Clerk of acceptance or rejection of the mediation board's evaluation. No response within 20 days will be considered as a rejection. Acceptances or rejections are also posted on the mediation index card (Figure 11).

(5) After 20 days a "Mediation Acceptance or Rejection Notice" (Figure 14) is prepared (Alleen Haddock) and mailed out to each attorney of record. The notice lists all attorneys in the case and indicates whether or not each accepted or rejected the mediation board's evaluation. If all parties accepted the evaluation, the notice instructs attorneys to file the necessary order or judgment to conclude the case.

5. Paternity Cases (1,000/year)

Reserved.
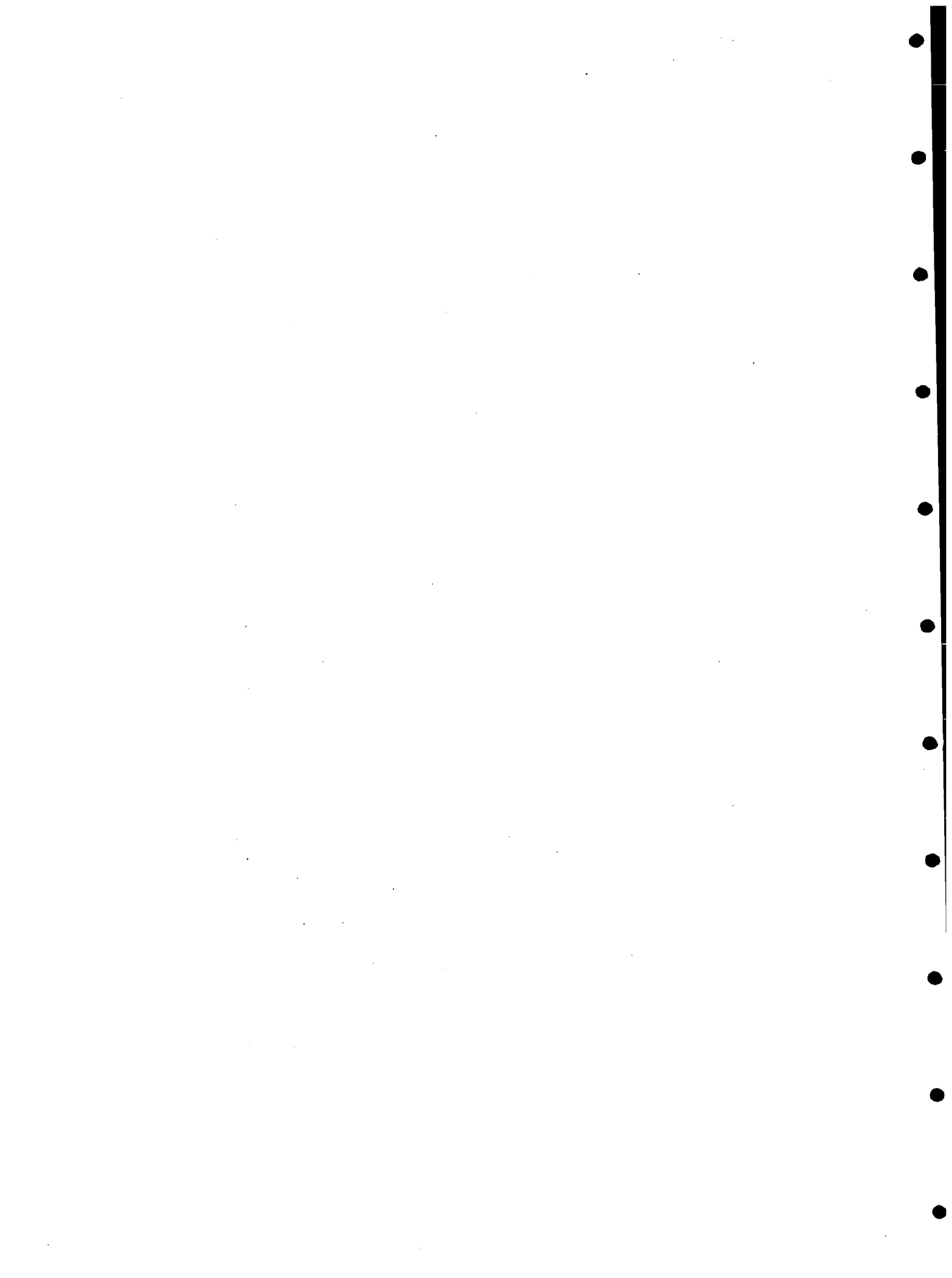
6. Criminal Cases

All criminal cases are processed by the Assignment Clerk's office according to the following procedures:

(a) A case jacket is received from the County Clerk's office which contains the following documents:

Notice of Arraignment (date set by lower court) (Figure 15)
DA's Warrant Issuance Recommendation
Complaint
Warrant
Police Department Witness List
Bond Release Documents
Waiver of Preliminary Examination (if applicable)
Examination Return
Case Control Card and Notice of Disposition (Prepared by County Clerk)

(b) The date of arraignment is posted on the face of the case jacket (Figure 16) (Dorothy Watkins).

(c) A Certificate of Assignment (Figure 3) is filled in less the name of the assigned judge.

(d) A felony index card (Figure 17) is prepared (Dorothy Watkins) which shows case index number, including a two letter suffix that indicates the type of charge. See Attachment 2 for a complete list of felony charge codes. Other cata recorded on the index card include the defendant's name and address, charge name, statute violation number, arresting jurisdiction, codefendant names, arraignment date, pretrial date, trial date, and the defense attorney's name, address, and telephone number.

(e) The arraignment date is then entered in the appropriate Arraignment Calendar Book. Books are set up for each month with one page in the book for each day of the month (see Figure 18). When a case is scheduled for arraignment the page for the date on which it is set for is removed from the book and the case identification information is typed on the page. If cases are scheduled for arraignment on a day inconvenient to the defense counsel, they are usually reset without an adjournment to the next convenient date bo both the defense attorney and the court (Arraignment Spinoffs).

(f) A few days prior to the arraignment a listing is prepared of all defendants in jail who must be brought
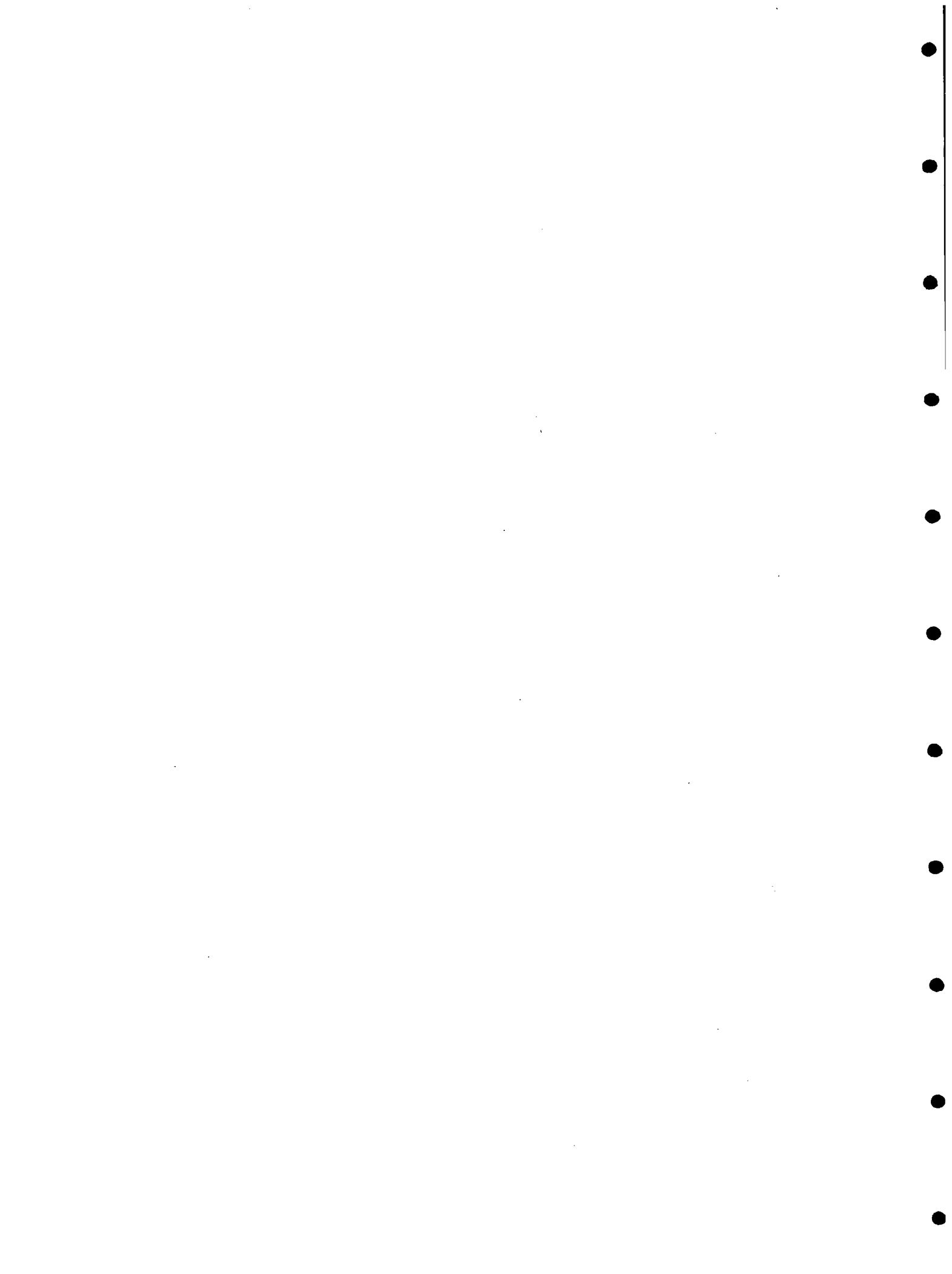
up for arraignment. Attachment 3 shows where prisoners are taken for arraignment which is dependent on which lower court the case originated in. The criminal case update clerk (Jennie Pierce) will prepare a jail list of defendants at various holding facilities throughout the county and indicate the scheduled time for the defendant's hearing in court.

(g) An Arraignment Update Sheet (Figure 19) listing all cases scheduled for arraignment on a given date is prepared and sent to the arraignment court where a clerk fills in the results of the arraignment. The sheet is then returned to the Assignment Clerk's office so that the trial date can be posted.

(h) On the same day the arraignment is held, a pretrial hearing is also conducted at which time plea bargaining occurs. If a defendant agrees to plea : : the pretrial hearing, the case jacket is sent t the presiding judge who accepts the plea and sets the sentencing date. A case update sheet, similar to Figure 19, is prepared by the presiding judge's clerk and sent to the Assignment Clerk's office.

(i) If a defendant demands a trial, the date set for the trial is recorded on the arraignment update sheet as described in paragraph 7 bove. Trials for defendants in custody are usually scheduled for four weeks following arraignment. In bond cases, trials are set for 12 weeks following arraignment. Five judges are assigned to the Criminal Division on a rotating basis and eight trials are scheduled for each day. Criminal trials can only be adjourned on the basis of a motion approved by the Chief Judge and cases are rarely placed on spinoff for more than one day.

(j) After the trial date is set, then the case is entered on a page in the Trial Calendar Book which is maintained similarly to the Arraignment Calendar Book described in paragraph 5 above. A "Notice cr Trial" (Figure 20) is prepared immediately following the pretrial hearing and sent to the defense attorney(s) of record. A few days prior to trial, a jail list is prepared and sent to each holding facility to ensure the defendant's appearance in court. A Trial Update Sheet is then prepared for each courtroom which is filled in by the clerk and returned to the Assignment Clerk's office so that the disposition can be recorded on the Criminal Case Index Card.
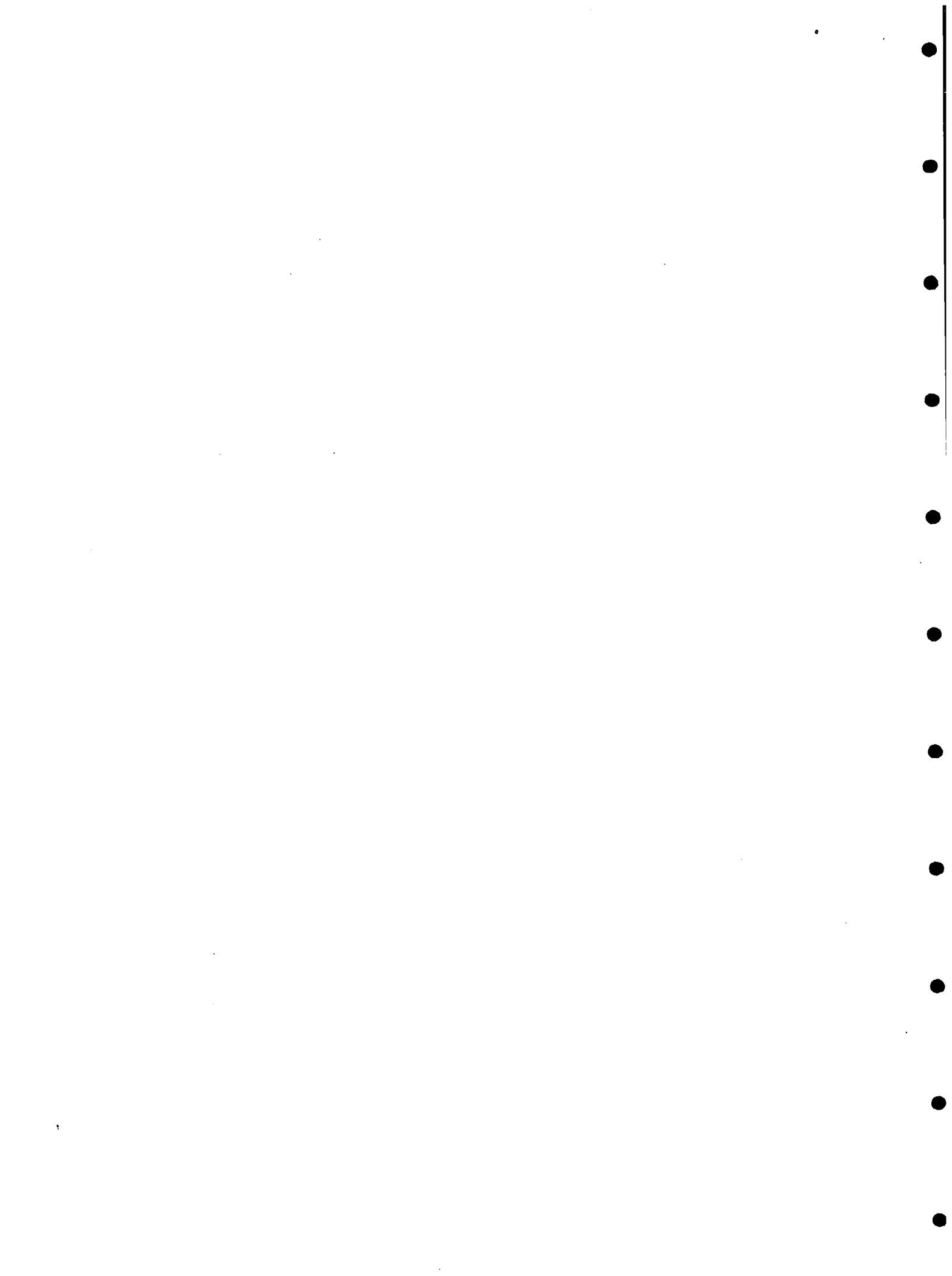
(k) There are several special actions in criminal cases which include:

(1) <u>Motions</u>. In order for a motion to be scheduled, an attorney must file a "Praecipe for Motion" (Figure 9) with the Assignment Clerk. Attorneys may schedule motions for Fridays or trial days. The praecipe is placed in the judge's box who has been assigned the case. If the motion is approved, the Assignment Clerk is notified by phone if it affects case scheduling in any way.

(2) <u>Adjournments of Trials</u>. All adjournments of criminal trials require an order from the chief judge. If approved, an order is signed, and a copy is furnished to the Assignment Clerk. The trial date is then changed in the Trial Calendar Book and on the Criminal Case Index Card.

(3) <u>Hearings for Appeals</u>. In these instances, a defense attorney in the case will be sent a "Notice of Hearing" (Figure 21). The Assignment Clerk will place the case on a special hearing calendar.

(4) <u>Mental Competency Hearings</u>. Defendants may be ordered to undergo psychiatric or other tests to determine their mental competency to stand trial. A "Notice of Mental Competency Hearing" (Figure 22) is prepared and sent to defense attorneys prior to trial. If this hearing interferes with the trial date, then the case is removed from the trial calendar and placed in a mental competency file until the defendant's mental capacity is determined.
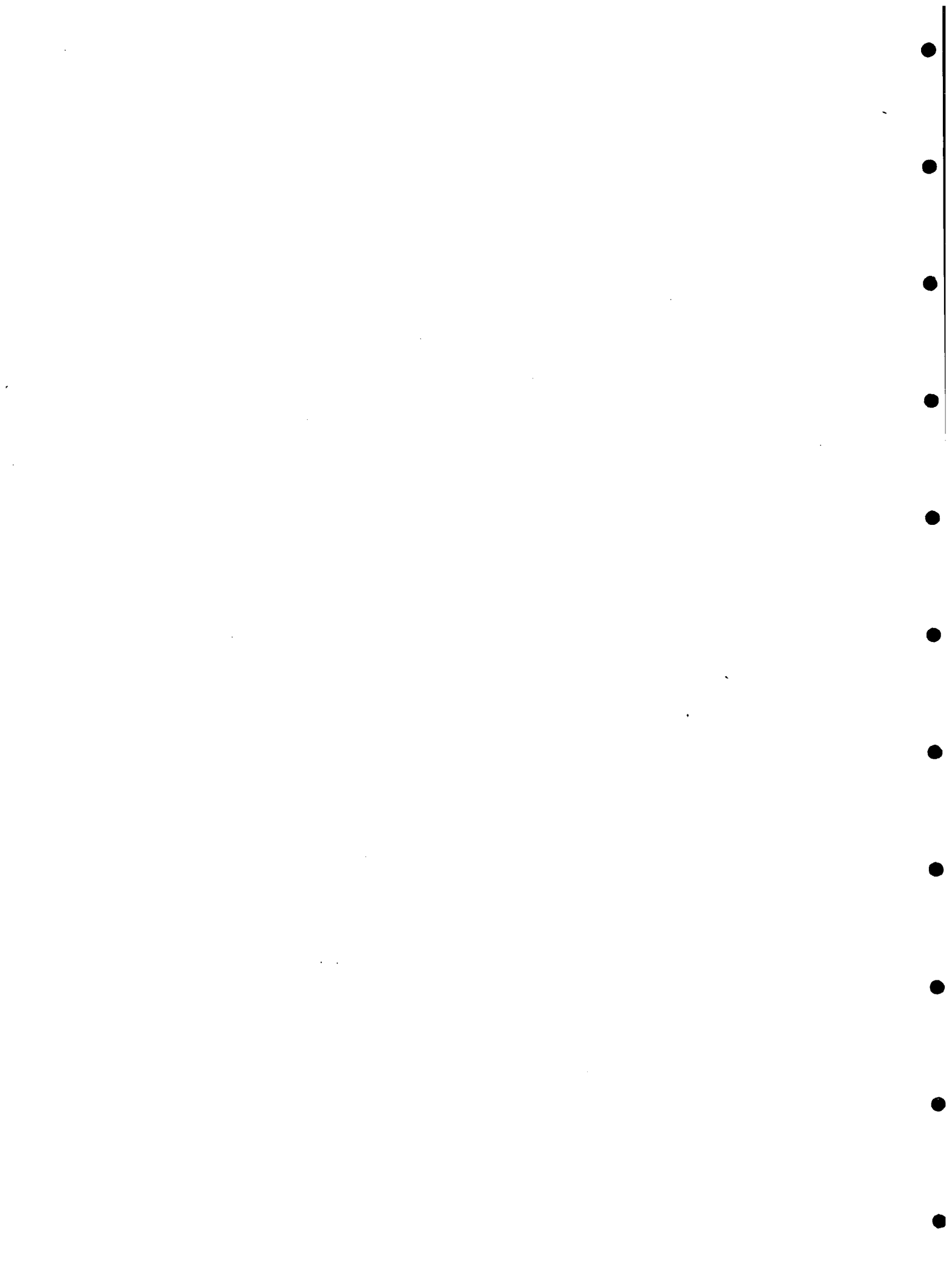
Data Elements Required

The following pages (C-12 to C-15) are copies of Recurring Data Analysis Charts prepared for both criminal and civil cases.

The left column of each chart lists the data elements that are captured as a case is processed between initial filing and final disposition. The documents on which each data element are recorded are listed diagonally across the top·of each chart

· A. Scheduling Constraints

The following factors are used by the Assignment Clerk's office in scheduling cases for hearings and court appearances:

Case Type/Action	Judges Available/Day	No. of Case/Frequency
Criminal (jail)	5	2/day
Criminal (bond)		6/day
Civil (contested divorce settlement conference/ trial)	As assigned by County Clerk	15/day
Civil (uncontested divorce settlement conference/ trial)	As assigned by County Clerk (blind draw)	160/week
Civil (paternity)	unknown	20/week
Civil (all other)	25	30/day
Mediation Panels	*	10/day--46 weeks/year
Civil Case (pre-trial conferences)	None being scheduled due to high backlog.	

*Heads up mediation panel. Not otherwise connected with case in any way.

RECURRING DATA ANALYSIS CHART

subject of analysis or activity

CIVIL CASE FLOW WITHIN WAYNE COUNTY ASSIGNMENT CLERK'S OFFICE

TITLE, DESCRIPTION, OR SOURCE

ANALYZED BY: J. Ours   DATE: 2/24/77

	1. AT ISSUE PRAECIPE	2. UNCONTESTED DIVORCE TRIAL & SETTLEMENT CONFERENCE NOTICE (YELLOW)	3. CONTESTED DIVORCE TRIAL NOTICE (BLUE)	4. PRETRIAL HEARING NOTICE	5. NOTICE OF TRIAL	6. PRAECIPE FOR MOTION	7. ASSIGNMENT CLERK'S RECORD & REASSIGNED ATTY TRIAL DATE	8. CERTIFICATE OF ASSIGNMENT	9. REQUEST FOR MEDIATION	10. MEDIATION INDEX CARD	11. MEDIATION ACCEPTANCE OR REJECTION NOTICE	12. NOTICE OF MEDIATION	13. NOTICE OF MEDIATION BOARD'S EVALUATION
1. Civil Action No.	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
2. Praecipe No.	✓							✓	✓	✓	✓	✓	
3. Plaintiff's Name	✓			✓	✓	✓		✓		✓	✓	✓	
4. Defendant's Name	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓		
5. Initial Judge Assign.	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓
6. Plaint. Atty Name	✓					✓				✓	✓	✓	
7. Plaint. Atty Address	✓	✓	✓	✓	✓	✓	✓	✓		✓			✓
8. Plaint. Atty Phone No.	✓	✓	✓	✓	✓					✓			✓
9. Def. Atty Name	✓					✓		✓	✓			✓	
10. Def. Atty Address	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓
11. Def. Atty Phone No.	✓	✓	✓	✓	✓			✓	✓	✓		✓	✓
12. Type of Case	✓					✓		✓	✓				✓
13. Date of Service	✓												
14. NJ/J Trial Indicator	✓												
15. Trial Judge Assigned	✓												
16. Date Notice Mailed	✓	✓			✓	✓		✓					
17. Adjournment Dates	✓												
18. Settlement Conf. Date	✓												
19. Trial Date		✓			✓								
20. Pretrial Hearing Date			✓										
21. Pretrial Hearing Time				✓									
22. Settlement Conf. Time				✓									
23. Motion Type						✓							
24. Motion Calend. Date						✓							
25. Motion Adjourn. Dates						✓							
26. Motion Disposition						✓							
27. Adjournment Date						✓							
28. Date Adjourned To							✓						
29. Date of Trial Judge Assign.							✓						
30. Reassignment Indicator								✓					
31. Judge Reassigned From								✓					
32. Mediation Board Eval.								✓					
33. Judge Ordering Mediat.									✓	✓	✓	✓	
34. Atty Requesting Mediat.									✓				
35. Mediation Hearing Date									✓				
36. Mediation Source Indicator										✓			
37. Mediator's Names (Atty)										✓			
38. Def. Atty Med. Fee Paid										✓	✓		
39. Plaint. Atty Med. Fee Paid										✓			
40. Def. Accept/Reject Mediat.										✓	✓		

RECURRING DATA ANALYSIS CHART		TITLE, DESCRIPTION, OR SOURCE

subject of analysis or activity

CIVIL CASE FLOW WITHIN WAYNE COUNTY ASSIGNMENT CLERK'S OFFICE

ANALYZED BY:	DATE:
J. Gurs	2/24/77

Column headers (1–13):
1. AT ISSUE PRAECIPE
2. UNCONTESTED DIVORCE TRIAL & SETTLEMENT CONFERENCE NOTICE (YELLOW)
3. CONTESTED DIVORCE TRIAL NOTICE (BLUE)
4. PRETRIAL HEARING NOTICE
5. NOTICE OF TRIAL
6. PRAECIPE FOR MOTION
7. ASSIGNMENT CLERK'S RECEIPT OF REASSIGNED NEW TRIAL DATE
8. CERTIFICATE OF ASSIGNMENT
9. REQUEST FOR MEDIATION
10. MEDIATION INDEX CARD
11. MEDIATION ACCEPTANCE OR REJECTION NOTICE
12. NOTICE OF MEDIATION
13. NOTICE OF MEDIATION HEARING & EVALUATION

	1	2	3	4	5	6	7	8	9	10	11	12	13
41. Plaint. Acc/Rej Med.											✓		
42. Mailing Date												✓	✓
43. Mediator's Names (Judge)										✓		✓	
44. Mediation Time												✓	
45. Plaint. Rej. Adj. Valuat.													✓
46. Def. Rej. Adj. Valuation												✓	

RECURRING DATA ANALYSIS CHART		TITLE, DESCRIPTION, OR SOURCE										

Subject of analysis or activity

CRIMINAL CASE FLOW WITHIN WAYNE COUNTY ASSIGNMENT CLERK'S OFFICE

ANALYZED BY:	DATE
J. Ours	2/24/77

		1	2	3	4	5	6	7	8	9	10	11	12
1.	Arraignment Date	✓				✓		✓	✓			✓	
2.	Criminal Case No.	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	
3.	Defendant Name	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
4.	Arrest. Jurisd.	✓					✓		✓	✓	✓	✓	
5.	Plea Accepted	✓											
6.	Adjourned to	✓											
7.	Remanded to LC	✓											
8.	Trial Date	✓				✓		✓	✓			✓	
9.	File Returned to	✓											
10.	Bond Continuation	✓											
11.	Def. Atty Name		✓	✓			✓		✓	✓	✓		
12.	Def. Atty Address		✓	✓			✓		✓	✓	✓		
13.	Judge		✓	✓					✓	✓			
14.	Compet. Hearing Date		✓										
15.	Courtroom		✓	✓									
16.	Appeal Hearing Date			✓									
17.	Police Agency				✓								
18.	Def. Birth Date				✓								
19.	Original Charge(s)				✓		✓	✓					
20.	Offense Date				✓								
21.	Local Police Dept. No.				✓								
22.	Disposition Date				✓								
23.	Charge Sentenced to				✓								
24.	Probation Term				✓								
25.	Ct. Costs Paid/Assessed				✓								
26.	Fine Paid/Assessed				✓								
27.	Restit. Paid/Assessed				✓								
28.	Institution Sentenced to				✓								
29.	Period of Confinement				✓								
30.	Lower Court Case No.					✓							
31.	Assignment Time					✓							
32.	Competency Hearing Time	✓											
33.	Appeal Hearing Time			✓									
34.	Judge Binding Case Over				✓								
35.	Court Binding Case Over				✓								
36.	Date Bound Over				✓			✓		✓			
37.	Trial Time						✓						
38.	Statute Violation No.								✓				
39.	Co-defendants								✓				
40.	Defendant Address								✓		✓		

C-14

RECURRING DATA ANALYSIS CHART		TITLE, DESCRIPTION OR SOURCE											
subject of analysis or activity CRIMINAL CASE FLOW WITHIN WAYNE COUNTY ASSIGNMENT CLERK'S OFFICE		Arraignment Update Sheet	Complaint Sheet	Appeal Hearing Notice	Case Control Card and Notice of Disposition	Arraignment Notice	Notice of Trial	Arraignment Calendar	Assignment Clerk Criminal Case Index Card	Certificate of Assignment	Criminal Case Jacket	Praecipe for Motion	Jail List
ANALYZED BY: J. Ours	DATE 2/24/77	1	2	3	4	5	6	7	8	9	10	11	12
41. Pretrial Date									✓		✓	✓	
42. Def. Atty Phase II									✓	✓	✓	✓	
43. Bond Type											✓		
44. Bond Amount											✓		✓
45. Officer in Charge											✓		
46. Exam Held/Waived											✓		
47. Transcript of Exam Filed											✓		
48. Date Trans. of Exam Filed											✓		
49. Date Remanded for Exam											✓		
50. Date Information Filed											✓		
51. Defendant's Age											✓		
52. Defendant's Race											✓		
53. Defendant's Sex											✓		
54. Type of Motion												✓	
55. Motion Calendar Date												✓	
56. Motion Adjournment Dates												✓	
57. Disposition of Motion												✓	
58. Confinement Facility		✓										✓	

ATTACHMENT D

WORK PLAN FOR
WAYNE COUNTY CIRCUIT COURT
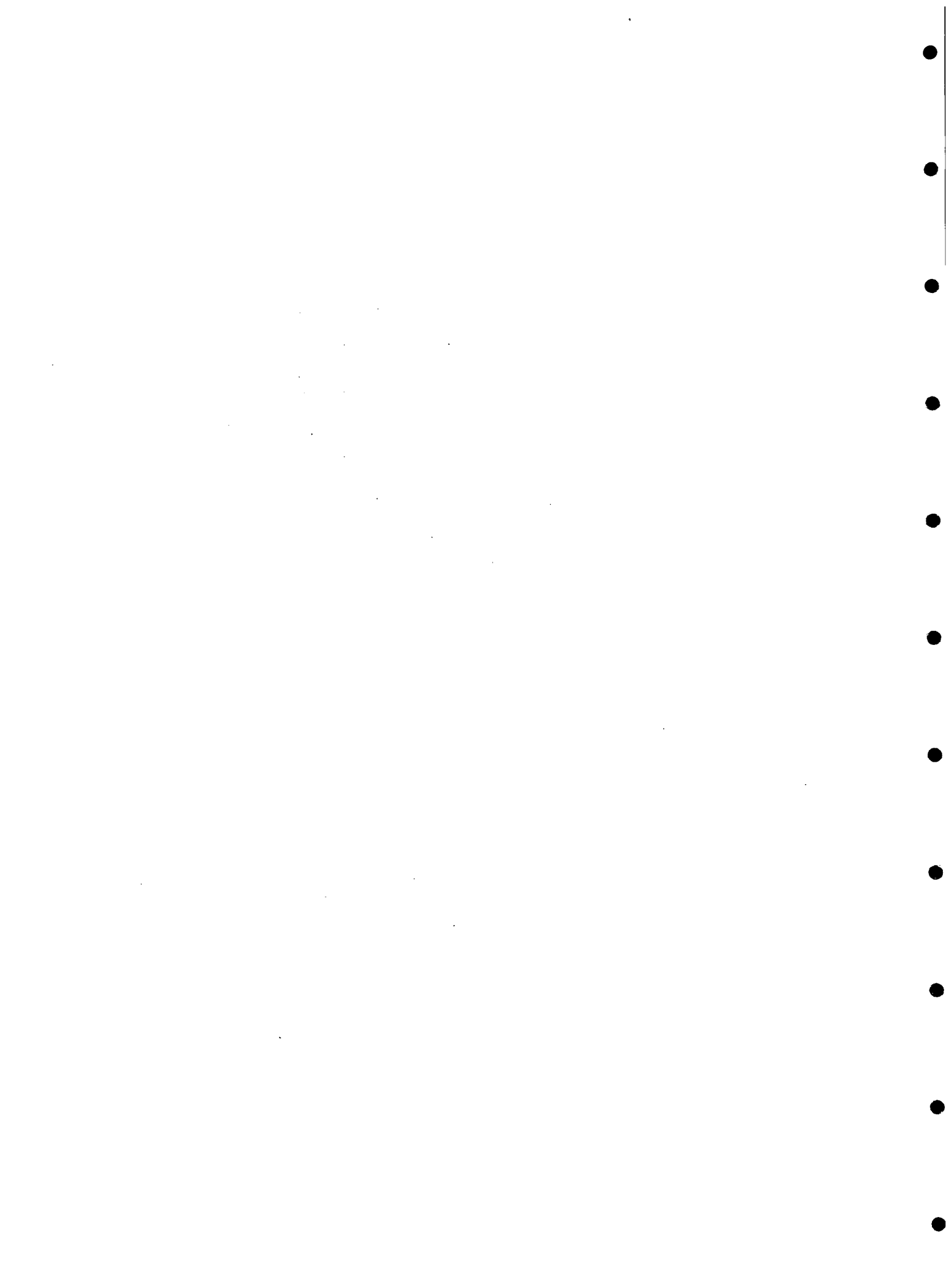
WORK PLAN FOR WAYNE COUNTY CIRCUIT COURT

Purpose

The purpose of this work plan is to initiate participation of the Wayne County Circuit Court (hereafter referred to as "the Court") as a pilot site for the Phase II of the Institute for Law and Social Research's (INSLAW) court scheduling project.

The work plan outlines the tasks to be undertaken, the resources to be applied to those tasks both by INSLAW and by the Court and, the timetable for task completion. The plan presents INSLAW perceptions of the priorities and requirements of the Court. However, discussion and negotiation are encouraged to arrive at a mutually agreeable and realistic set of products.

The products must be beneficial to the court in scheduling its cases but must also be transferable to other courts with similar environmental constraints. Transferability of products will be enhanced by thorough documentation and development of generalized software written in ANSI-COBOL where possible.

Background

The three tasks listed below are recommended by INSLAW as a result of visits to the Court including observation, some data collection and analysis and discussion with Court personnel.

Since the large civil case load of Wayne County was one of the factors involved in its selection as a pilot court, emphasis will be placed on potential improvements in scheduling the civil business of the court. Care will be taken to integrate and improve in as far as is possible the criminal scheduling processes.

Our concept of court scheduling is a comprehensive one, embracing the policy setting and resource management functions normally associated with case flow management. The three components which comprise a court scheduling system, the management component, calendaring component, and data support component are described in the Phase I Guide to Court Scheduling, 1. A Framework for Criminal and Civil Courts.

The three tasks herein recommended are:

    1.   Introduce automated assistance into the Assignment Clerk's Office;
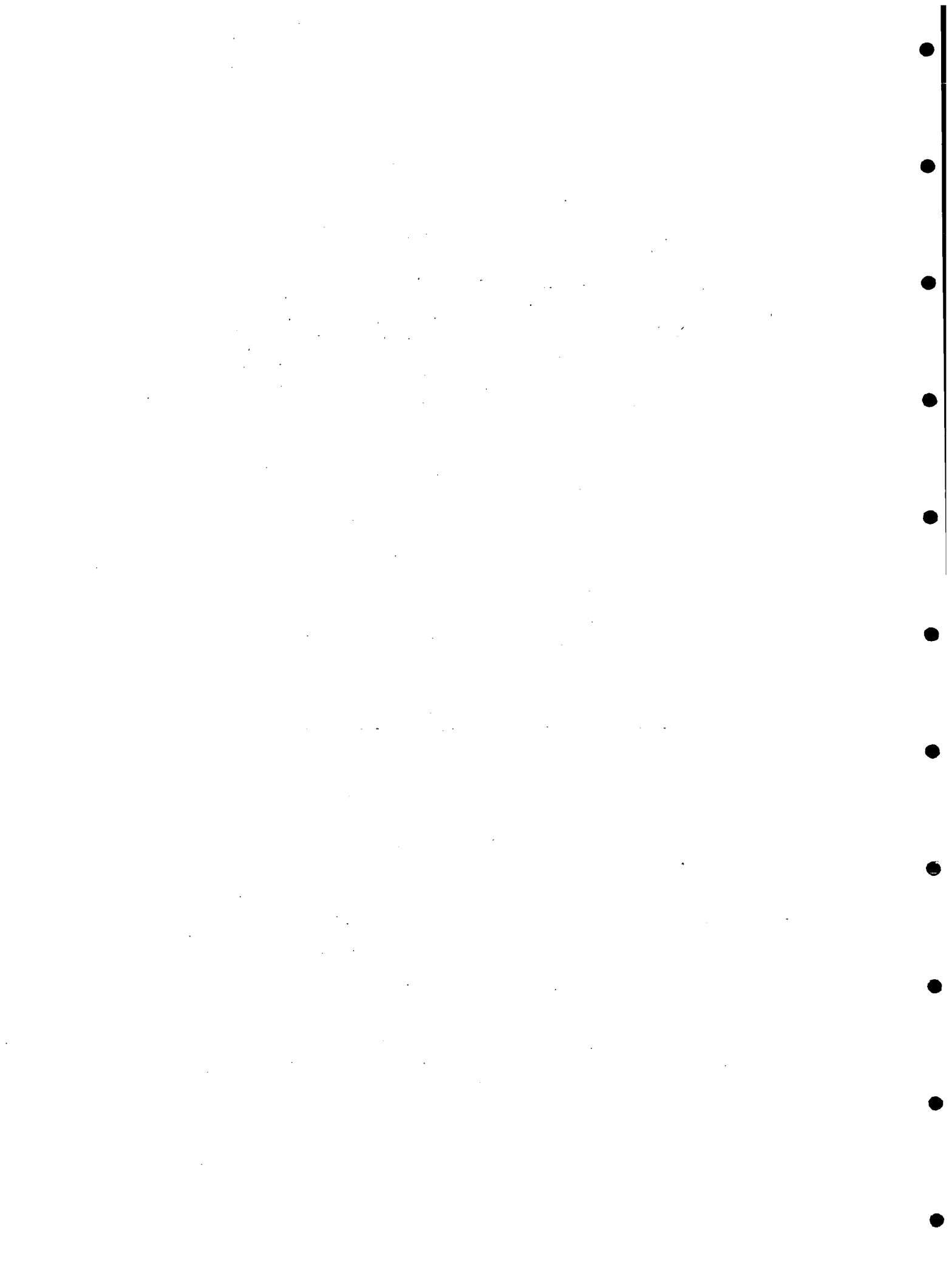
2. Analysis of Court Operations; and

3. Development of a Management Component for
   the Court's Scheduling System.

These three tasks are not independent and the results of the
Task 2 analysis will be utilized for the Task 3 development
of a management component. The management component, in turn,
will provide scheduling parameters (for example -- how many
cases to overset) for subsequent improvements in the operations
of the Assignment Office, as well as management information for
the Chief Judge and Court Administrator. The tasks, their ra-
tionale, and the steps involved, are described in greater de-
tail below.

Task 1 - Introduce Automated Assistance Into the Assignment
         Clerk's Office

The objective of this task is to extend the court's data
processing capability to the civil side of the Assignment
Clerk's Office resulting in the automated generation of notices,
simultaneous collection of calendaring information and the ca-
pability to print out calendars and schedules.

With the addition of automated assistance, the staff of the
Assignment Clerk will be able to key data into a terminal device
located in the Assignment Office entering the same information
now typed on cards and trial notices. Thereafter, only minimal
information would have to be entered to continue a case to an-
other trial date and generate another round of notices on a
small printer located near the terminal. This will save clerk
time now spent on retypings of notices.

Since the system would "know" the forthcoming trial dates
for all scheduled cases, it could also print calendars and sta-
tistical reports. Eventually, certain of the case tracking and
scheduling information can be integrated into a single system
on the computer by coordinating data input from all sources
within the Court.

This task would make use of the Court's existing computer
capacity at a modest cost while enhancing the capability and
functions of the Assignment Office, decreasing the clerical bur-
den there and providing for the collection of scheduling data.

The specific steps leading to the development of these ca-
pabilities are:

Step A - Document the Requirements of the Assignment Of-
fice - The purpose of this step is to define the informa-
tion requirements, time constraints and other operating
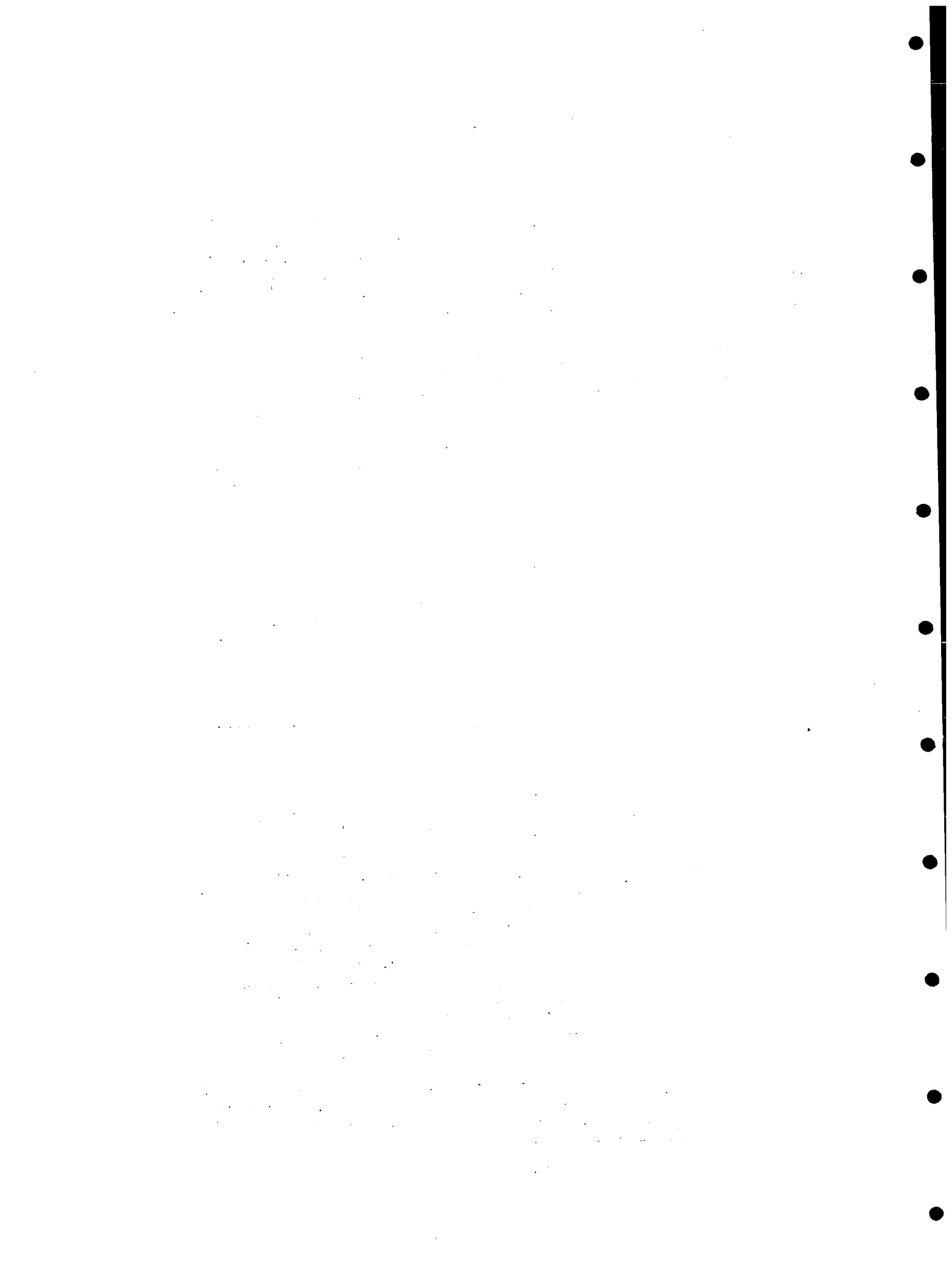
conditions of the Assignment Office. INSLAW will perform
this step on-site with the information provided by Mr. Shaheen
and his staff, who will then be asked to review the written
results for accuracy and completeness. The resulting document
will form the basis of our mutual understanding of the
design requirements for the Assignment Office.

Step B - Design Information Flow and Paper Flow for the
Assignment Office - Working jointly and using the results
of Step A above, INSLAW and the Court will design an information
flow which incorporates computer assistance into the
operations of the office.

Step C - Estimate Cost and Time Savings - Once a mutually
agreeable design has been established INSLAW will estimate
the costs for hardware, computer time, forms and clerical
time to operate the proposed design based on information
supplied by the Court. INSLAW will also attempt to estimate
clerk time savings occasioned by the automation.

Step D - Write Procedures to Support New Design - A procedures
manual, detailing the functions involved and persons
responsible, will be written jointly by INSLAW and the Court.
INSLAW will provide an outline of the functions to be described
and a format for their description as well as tying
the functions together into a procedures manual. The Court
will be expected to write the specific details involved. Existing
written material will be used wherever possible.

An example of a functionally-oriented procedures manual
is provided in Attachment 1 (PROMIS excerpt).

Step E - Design Forms - INSLAW will design forms as required
for the automated and manual portions of the system, and provide
camera-ready copy to the Court. The Court will be responsible
for printing forms.

Step F - Develop Software Specifications - Working together,
INSLAW and the Court will develop program specifications for
the Court's computer system to accept information on cases
and parties from the Assignment Office, update existing records
and generate notices and listings on request will be
written by INSLAW. Good communication between INSLAW and
the Court's data processing staff will be essential to ensure
that specifications are responsive to the Court's data processing
plan and facilities. In addition, the Court must
realize that software products developed under this project
are to be transferable to the maximum extent possible.

Step G - Program - The Court's data processing staff will be
responsible for writing, testing, debugging and documenting
computer programs. INSLAW will furnish instructions for developing
transferable programs.
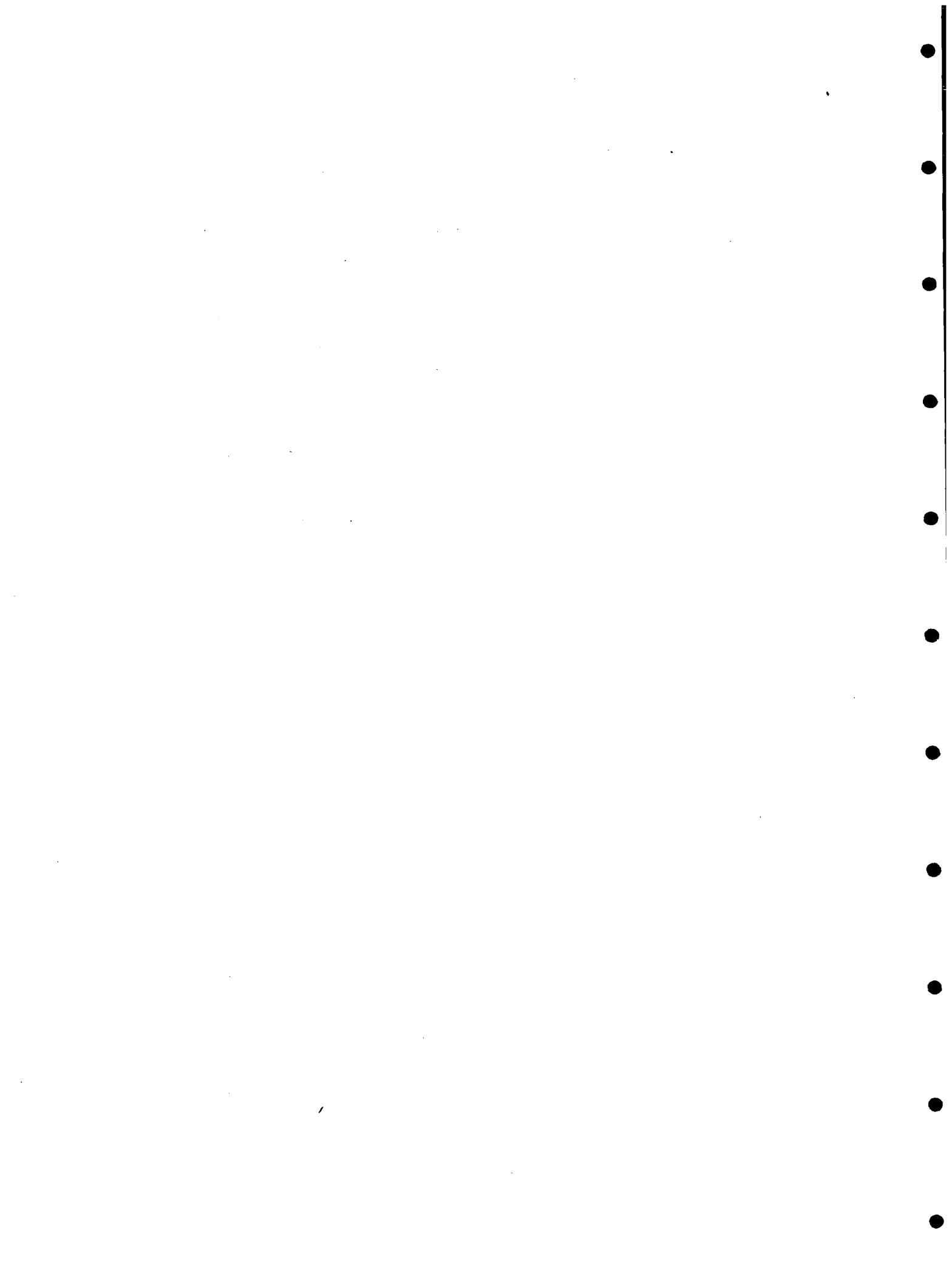
Step H - Site Preparation and Testing - This step includes the ordering, installation and testing of computer terminal equipment and lines into the Assignment Office, and will be the responsibility of the Court. The complete system will be tested following installation of equipment.

Step I - Training - This will be the joint responsibility of the Court and INSLAW. Actual training may only involve a few hours of a single day for the operating clerks but it should also include an orientation for administrative and judicial personnel.

Step J - Implementation and Fine Tuning - A parallel run in which both the old and new systems are operated for a short time will be conducted. Any necessary minor adjustments to the system will be made and the system will be implemented.

Step K - Complete Documentation - All documentation of computer software, and supporting manual procedures will be completed.

Step	Responsible Party		Completion Date
	Court	INSLAW	
A. Document Requirements of Assignment Office	X	X	
B. Design Information and Paperflow	X	X	
C. Estimate Costs and Time Savings	X	X	
D. Write Procedures	X	X	
E. Design Forms		X	
F. Develop Software Specifications	X	X	
G. Program	X		
H. Site Preparation and Testing	X		
I. Training	X	X	
J. Implementation and Fine Tuning	X	X	
K. Complete Documentation	X	X	
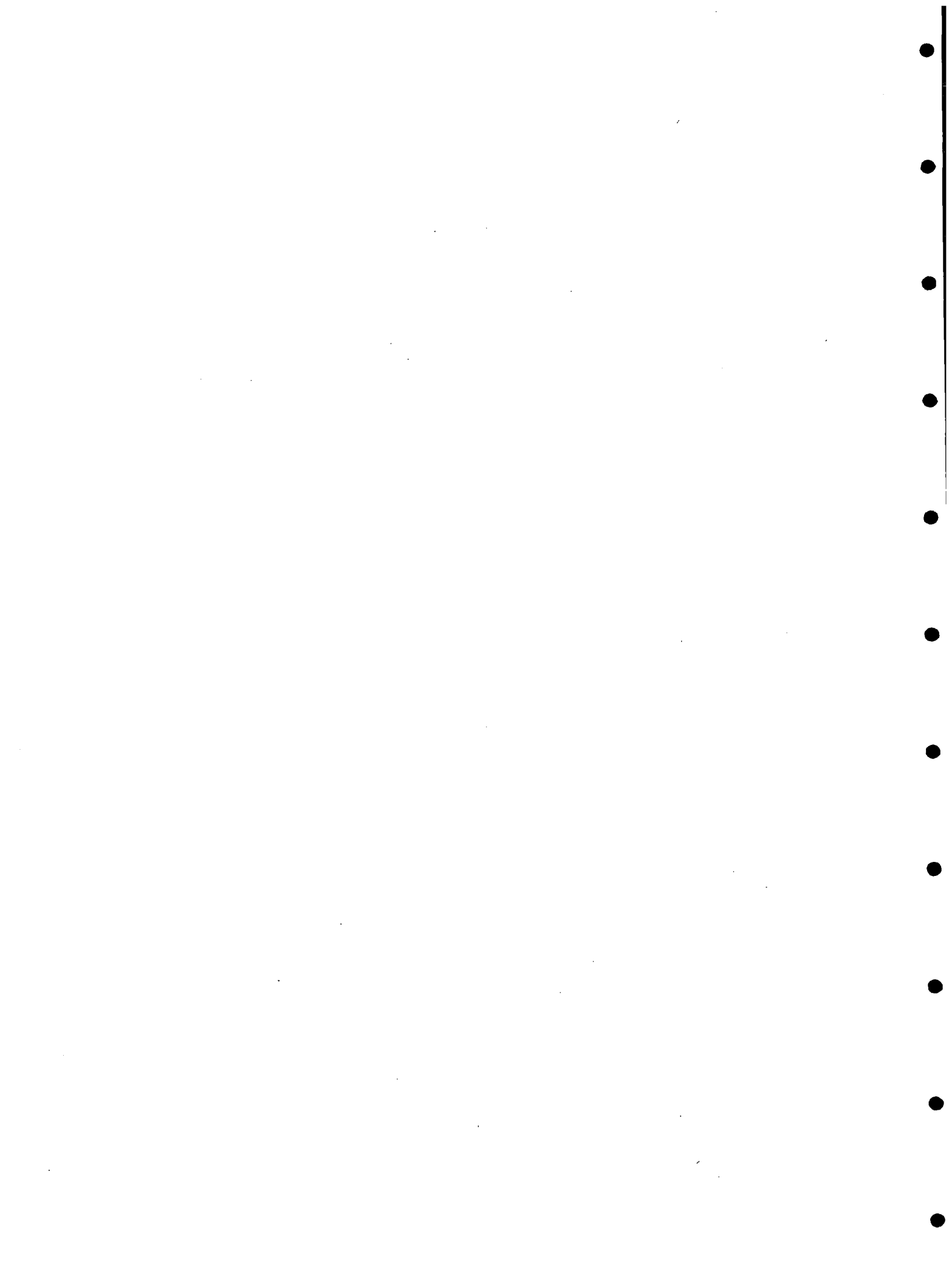
Task 2 - Analysis of Court Scheduling Operations

The objective of this task is to analyze available data in order to describe, in a quantitative manner, the operations of the Court and the flow of cases with respect to scheduling. This quantitative analysis will serve to complement the descriptive and anecdotal information compiled during Task 1.

The specific tasks required for completion of this task are:

Step A - Determine Available Automated and Nonautomated Data - INSLAW will identify, through discussions with Court personnel, potential sources of data regarding the operation of the Wayne County Circuit Court.

Step B - Specify Data Requirements for Court Analysis - INSLAW will specify the data required for completion of the analysis of court operation. These data will include:

1. Case flow data - Random selection of approximately 5,000 closed cases from the case history file (HIST) available in the Court's information system.

2. Court activity data - Extraction from HIST of a file containing data on all courtroom activities since April 5, 1976.

3. Calendaring data - Manual collection and compilation of data on criminal and civil calendar performance since April 5, 1976. For each date, the number of cases selected for pretrial conference, the number of cases scheduled for settlement conference, the number of cases scheduled for trial, the number of cases tried, the number of cases continued and the number of cases settled will be recorded. In addition, the number of judges actually available for hearing civil and criminal cases on each date will be recorded. The data collection form will be designed by INSLAW.

4. Case load data - Compilation of annual reports.

Step C - Prepare Data in Machine Readable Form - Following completion of Step B above, the Court will be responsible for extracting all necessary data from the Court's information system and preparation of machine readable files. In addition, the data described in Step B.3 will be collected manually by the Court.

Step D - Data Analysis - INSLAW will be responsible for analyzing the data in order to describe court scheduling performance, processing times, and event durations.
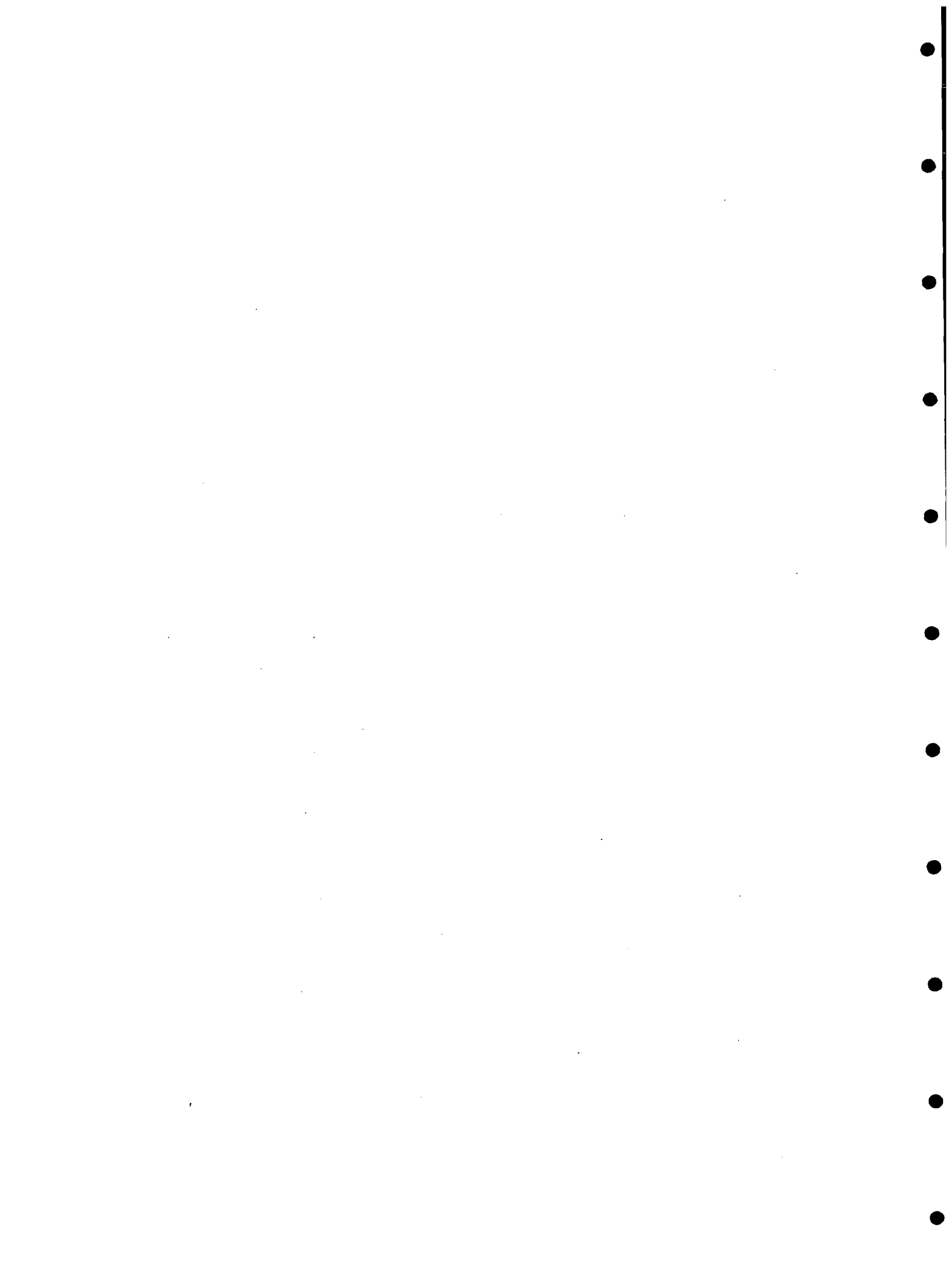
<u>Step E - Consultation on Results of Data Analysis</u> - INSLAW
and representatives of the Court will meet to discuss re-
sults of the data analysis and to discuss the conclusions
drawn by the study team. These results will be utilized
in Task 3.

Step	Responsible Party		Completion Date
	Court	INSLAW	
A. Determine available auto- mated and nonautomated data sources		X	
B. Specify data requirements		X	
C. Preparation of data	X		
D. Data analysis		X	
E. Consultation on results	X		

Task 3 - Develop a Management Component

The objectives of this task are to identify the priorities
of the Court and to develop methods by which these priorities
can be related to scheduling. Completion of this task will
require identification of appropriate measures of scheduling
performance and development of methods by which the trade-offs
associated with scheduling decisions can be quantified and
studied. In addition to providing a basis for managing the
scheduling process, the products of this task will also serve
to make scheduling policies more visible and rational for the
court community. The management component will become an in-
tegral part of the operations of the Assignment Office.

In order to more clearly delineate the key elements of Task
3, it has been divided into two phases. The first phase recog-
nizes that active participation by the judiciary in specifying
goals and objectives is necessary to ensure the successful im-
plementation of a scheduling management component. This phase
will allow the judges to articulate the type of information they
feel is required for effective management and to specify how
that information can best be put to use. The second phase will
implement the scheduling plan developed as the result of these
discussions with judges and other court personnel.

Phase I

<u>Step A - Establish and Articulate Court Priorities and
Objectives</u> - The first step in developing an orderly and
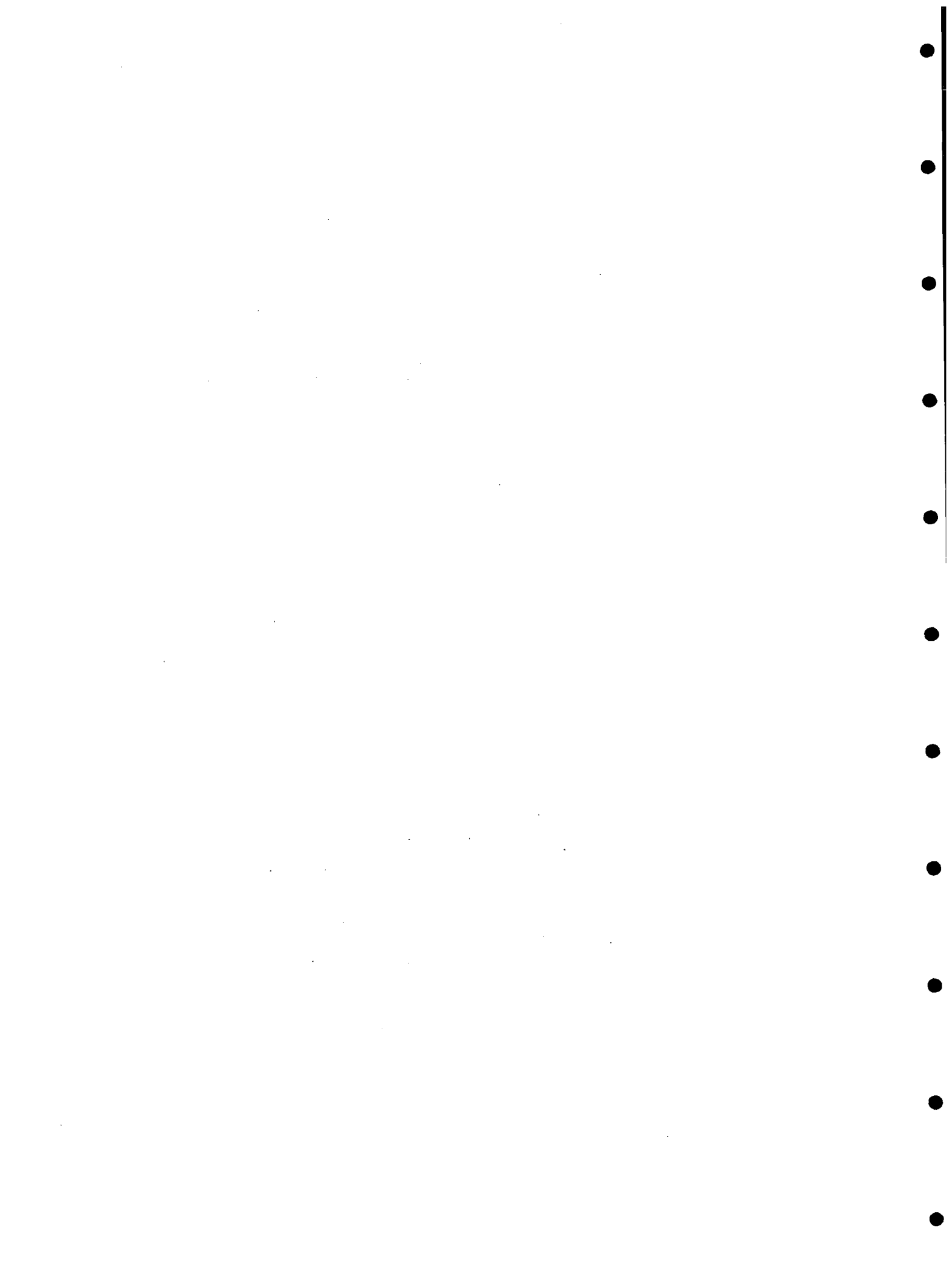
logical process for scheduling is to clearly spell out the
objectives of the Court. This step will answer the ques-
tion -- "What should the court scheduling system accom-
plish?" Once the objectives of the Court are identified
they can be implemented through establishment of priori-
ties, development of local court rules or through imple-
mentation of scheduling procedures.

Determining the goals and objectives of the Court is
primarily the function of the judges. INSLAW's role will
be that of a catalyst, raising issues for discussion. In
order to most effectively use the judges' time and focus
their efforts on the scheduling problem, INSLAW, working
closely with the Court Administrator, will plan and co-
ordinate a special one-day conference designed to discuss
and establish the goals and objectives of the scheduling
system. The conference will be held at an early stage of
the project and attendance will be limited to judges of the
Wayne County Circuit Court. The discussion process will
be supplemented by relevant quantitative analyses, avail-
able as a result of Task 2, which illustrate resource or
work load constraints on the Court.

Step B - Identify Measures of Performance - Once the ob-
jectives of the Court have been clearly articulated, it
becomes necessary to determine whether the operations of
the Court are in keeping with those objectives. This
process of evaluation requires the identification of ap-
propriate performance measures. INSLAW will work closely
with the Court to identify these measures which will char-
acterize scheduling performance.

Phase II

Step C - Quantify Trade-Offs - In the course of develop-
ing a list of objectives, the Court will probably dis-
cover that some of them conflict with each other. The
Court will find it necessary to devise ways of balancing
or making trade-offs between them.

INSLAW proposes to develop a set of models which will
illustrate and quantify the trade-offs involved in achiev-
ing the objectives of the Court, using the performance
measures developed in Step B.

Step D - Develop Software Specifications for Management
Reports - INSLAW will write a set of specifications for
developing the software needed to produce management re-
ports for the Court. These management reports can be used
by the Court to periodically evaluate the performance of
the scheduling system.

D-7
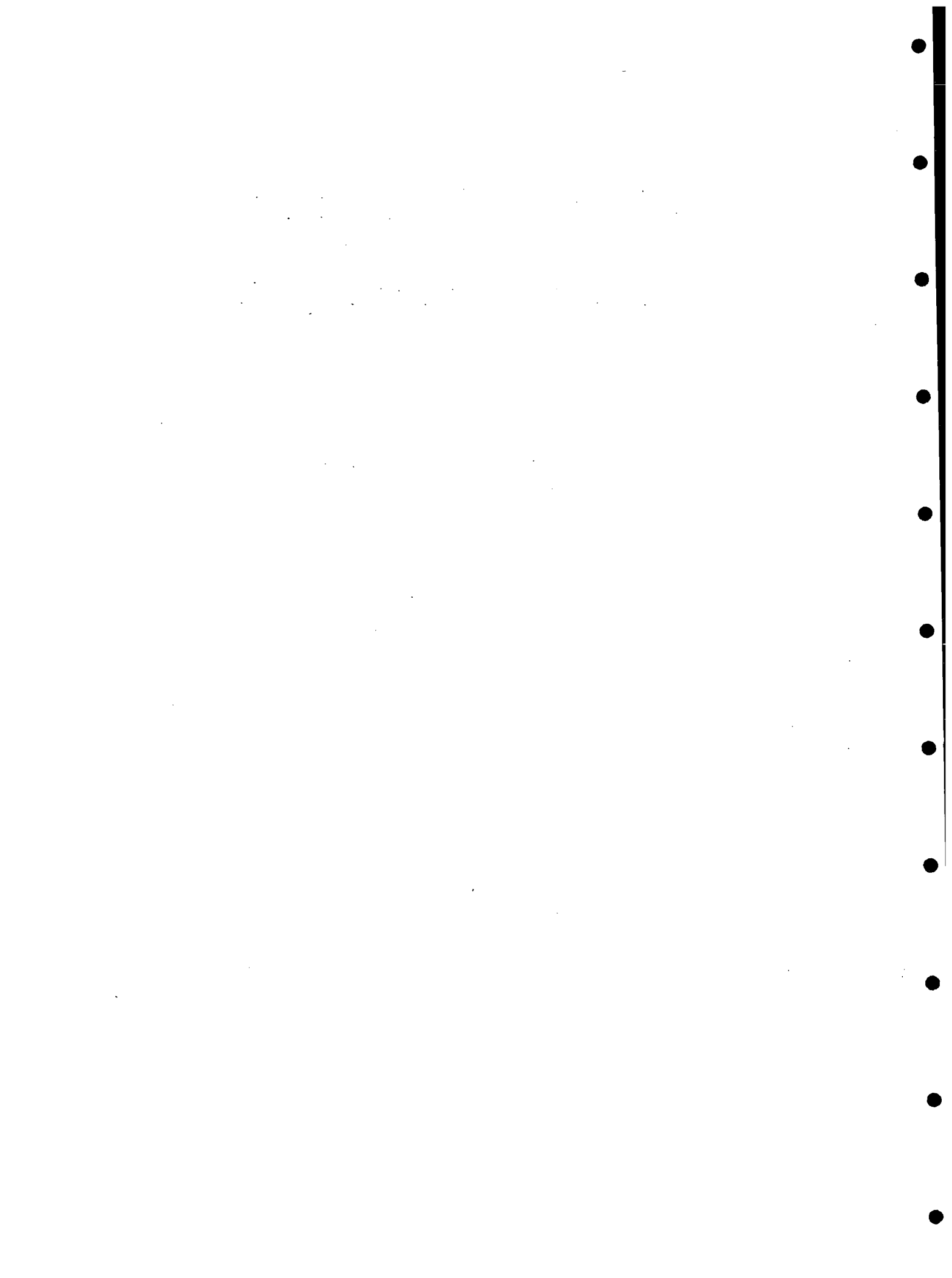
Step E - Develop Software for Management Reports - The
Court will provide programmers to write, test, debug and
document the software using the specifications developed
in Step D above.

Step F - Prepare Training Materials - INSLAW will prepare
a set of training materials to fully acquaint all Court
personnel with the functions and operations of the manage-
ment component.

Step	Responsible Party		Completion Date
	Court	INSLAW	
A. Establish and artic-ulate court priori-ties and objectives	X	X	
B. Identify measures of performance	X	X	
C. Quantify trade-offs		X	
D. Develop software speci-fications for manage-ment reports		X	
E. Develop software	X		
F. Prepare training mate-rials		X	
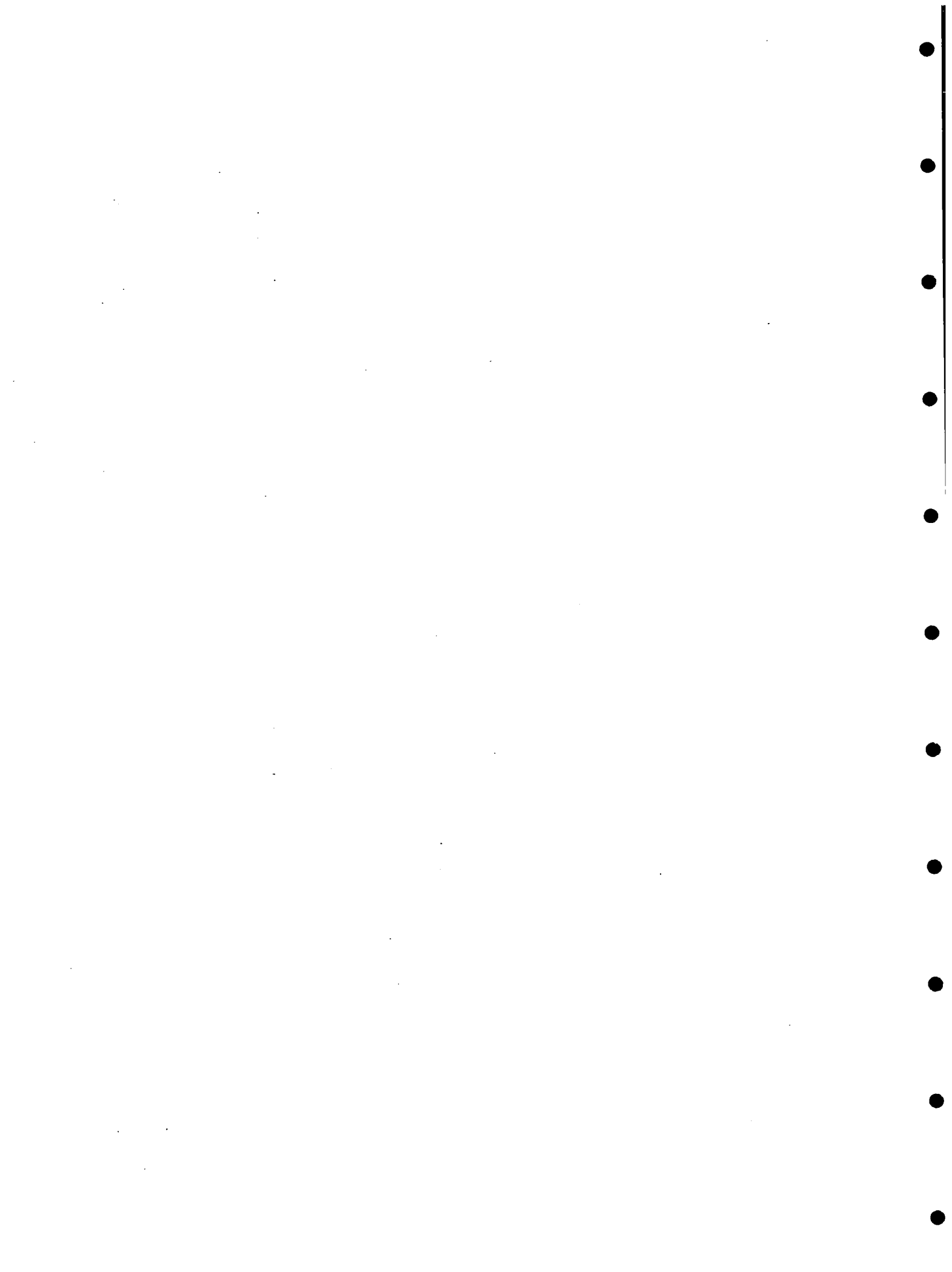
TASK SCHEDULE FOR WAYNE CIRCUIT COURT

Timeline: 1/7 14 21 28 2/4 11 18 25 3/4 11 18 25 4/1 8 15 22 29 5/6 13 20 27 6/3 10 17 24 7/1 8
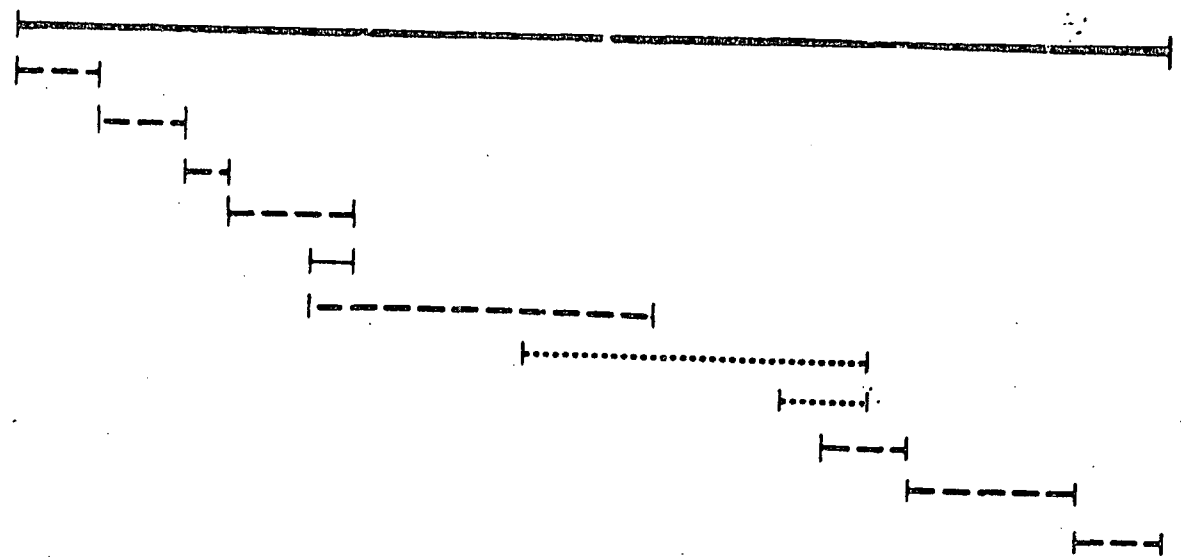
TASK 1
A
B
C
D
E
F
G
H
I
J
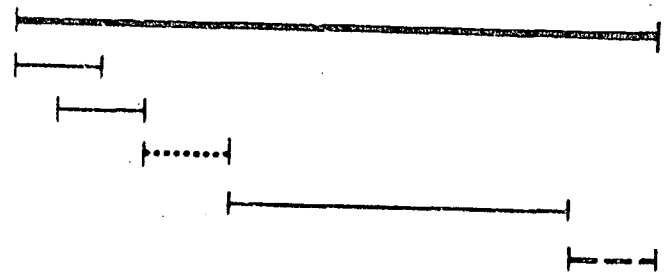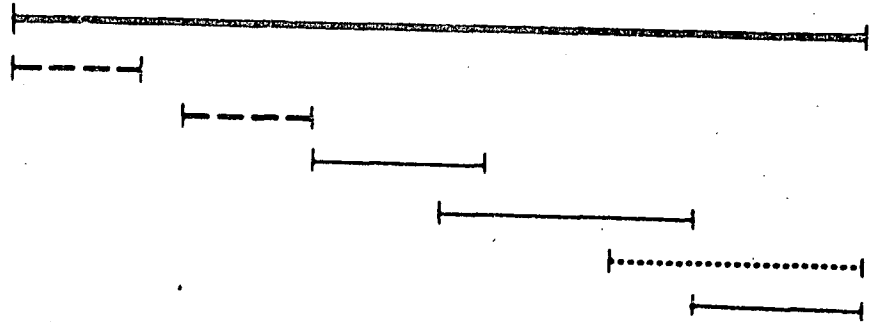
TASK 2
A
B
C
D
E

TASK 3
A
B
C
D
E
F

LEGEND

———— INSLAW

.... Court

— — — INSLAW & Court

Attachment 1

ARRAIGNMENT/PRESENTMENT UPDATE

I. **Purpose**

To ensure that the release status and the initial trial date set at arraignment/presentment are promptly and accurately entered into PROMIS for each case.

II. **Function**

7. Arraignment Court Clerk

III. **Description**

Responsibility for collecting and coding arraignment information for misdemeanor cases and presentment information for felony cases rests with the Arraignment Court Clerk. Review and keying of arraignment data is performed by functions in the System Operation section.

IV. **Specific Responsibilities**

Description	Performed By	Reviewed By
1. Collect and code arraignment information	Arraignment Court Clerk	Quality Control Clerk
2. Ascertain that each papered case has an arraignment	Quality Control Clerk	N/A
3. Key arraignment data	Data Entry Operator	N/A
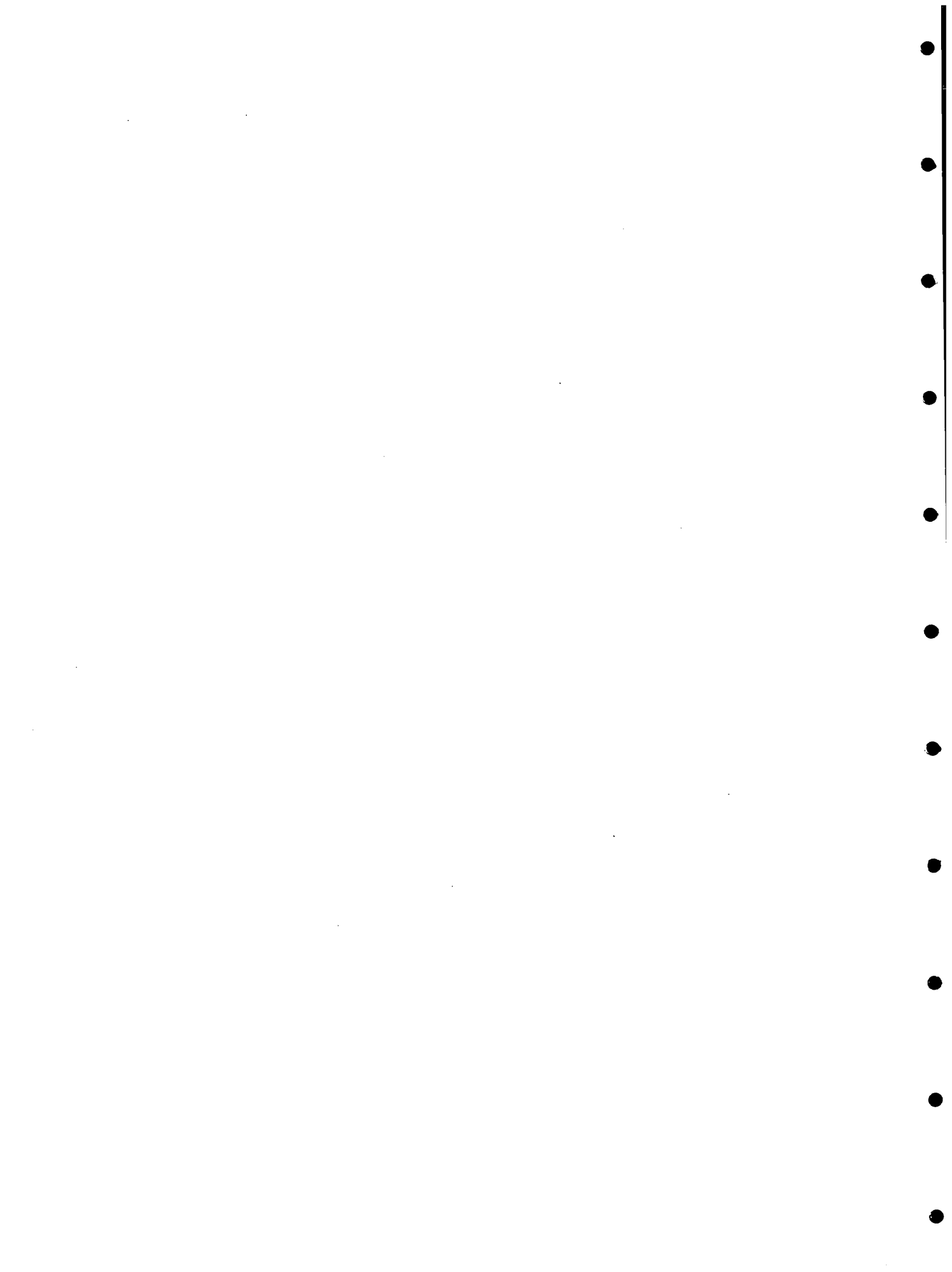
FUNCTION NAME: Arraignment Court Clerk

FUNCTION NUMBER: 7

I. Materials Required

Coding Reference Guides

> Prosecutor Codes (Appendix D)
> Action Reason Codes (Appendix E)
> Judge Codes (Appendix H)
> Defense Counsel Codes (Appendix I)

Equipment and Supplies

> File drawers for 5 x 8 cards

Special Forms

> Misdemeanor Rebring Form (Figure A-11)
> Arraignment Forms (R325)
> Continuance/Disposition Forms (R300)

Computer Generated Turnaround Documents

> Pre-Indictment Error Arraignment (R295)

Non-PROMIS Reports

> Lockup List (Figure A-5)
> Bond List (Figure A-6)
> Citation List (Figure A-7)
> Attorney Available List (Figure A-10)

II. General Procedure

The Arraignment Court Clerk collects and codes all
arraignment information for misdemeanor cases and pre-
sentment information for felony cases in arraignment
courtroom 17. In addition, the clerk verifies that
an arraignment transaction is entered into PROMIS
for each papered case. The clerk collects this in-
formation in courtroom 17 between the hours of 9:00
a.m. and the completion of business in the courtroom
Monday through Saturday.
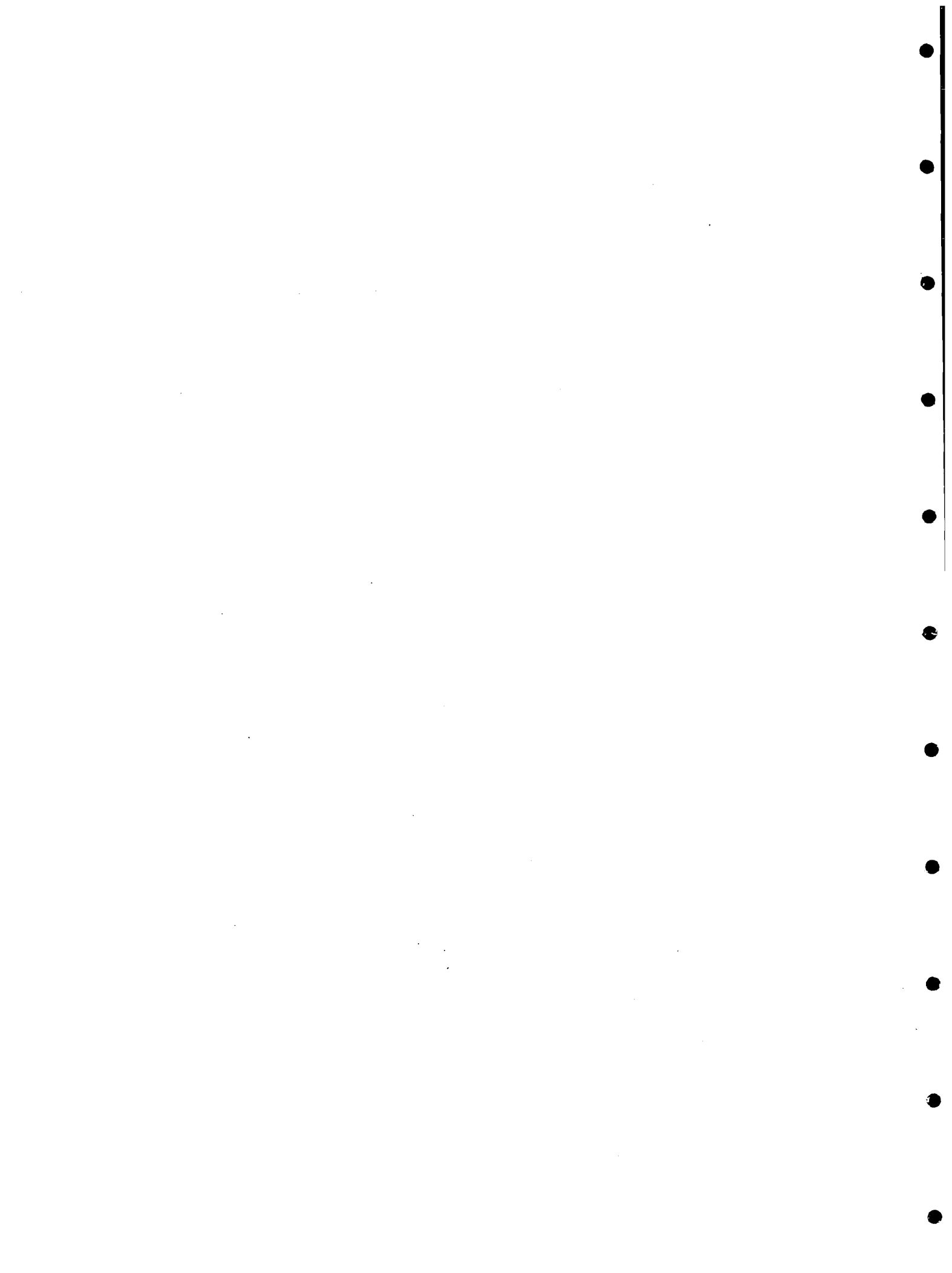
III. Specific Procedures

1. Prior to court convening, obtain copies of the Lockup, Bond, and Citation Lists. Code onto Arraignment Forms (R325) the judge, prosecutor, and action date for each defendant on these lists.

2. As each defendant is arraigned or a case presented, complete the remaining items on the Arraignment Form.

Item	Coding Instructions
Case Number	From case jacket
PDID	From case jacket
Action Date	Date of arraignment or presentment as MMDDYY (e.g., 012575 is January 25, 1975)
Prosecutor	Code for arraignment prosecutor of the day
Judge	Code for judge presiding
Defense Attorney	From case jacket (if no code, write in name, code later)
Action Reason	
Presentment Continued to Preliminary Hearing	Code 1012
Arraignment Continued to Initial Trial Date	Code 1001
Case Set For Rearraignment	Code reason for the postponement (last digit is 1 for misdemeanor, 2 for felony)
Continued Date	Date of next court event in format MMDDYY
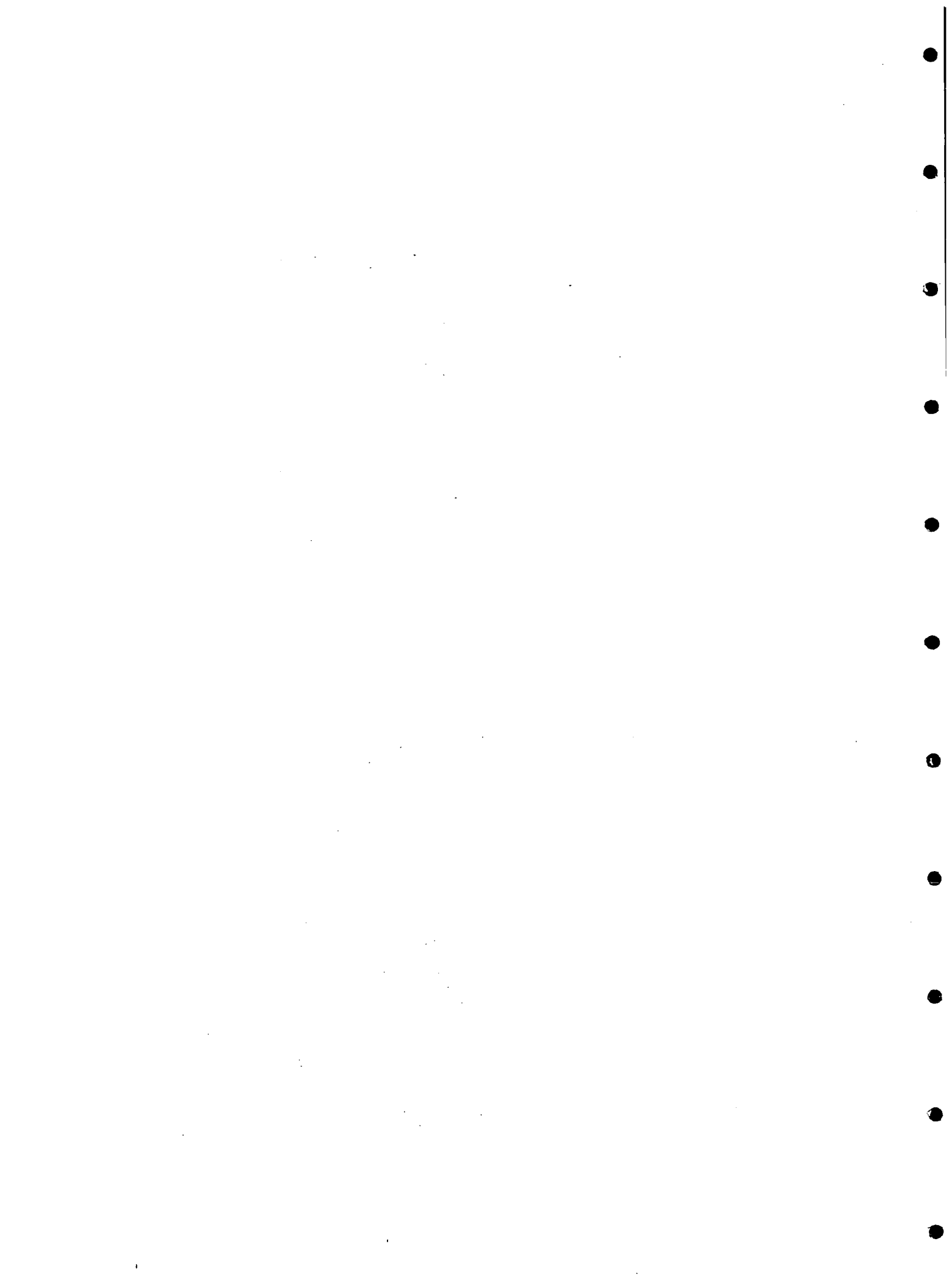
Item	Coding Instructions
Release Recommended	
Type	From case jacket
Cash Bond Amount	From case jacket, if applicable
Percent Deposit	From case jacket, if applicable
Release Decision	See Release Recommended
Arraignment Plea	N = Not Guilty (all charges) G = Guilty (any charges)
Jury/Non-Jury	N = Non-jury demand J = Jury demand
Urine Test	From urinalysis report
Date	In format MMDDYY
Results	P = Positive N = Negative
Drug Type	01 Amphetamine 02 Anabarbital 03 Barbituate 04 Cocaine 05 Codeine 06 Hallucinogen 07 Heroin 08 LSD 09 Marijuana 10 Methadone 11 Methadone amphetamine 12 Morphine 13 Opium 14 Pentabarbital 15 Secobenbital 16 Quinine 19 Others
Lineup Date	From case jacket, if applicable
Lineup Time	From case jacket, if applicable
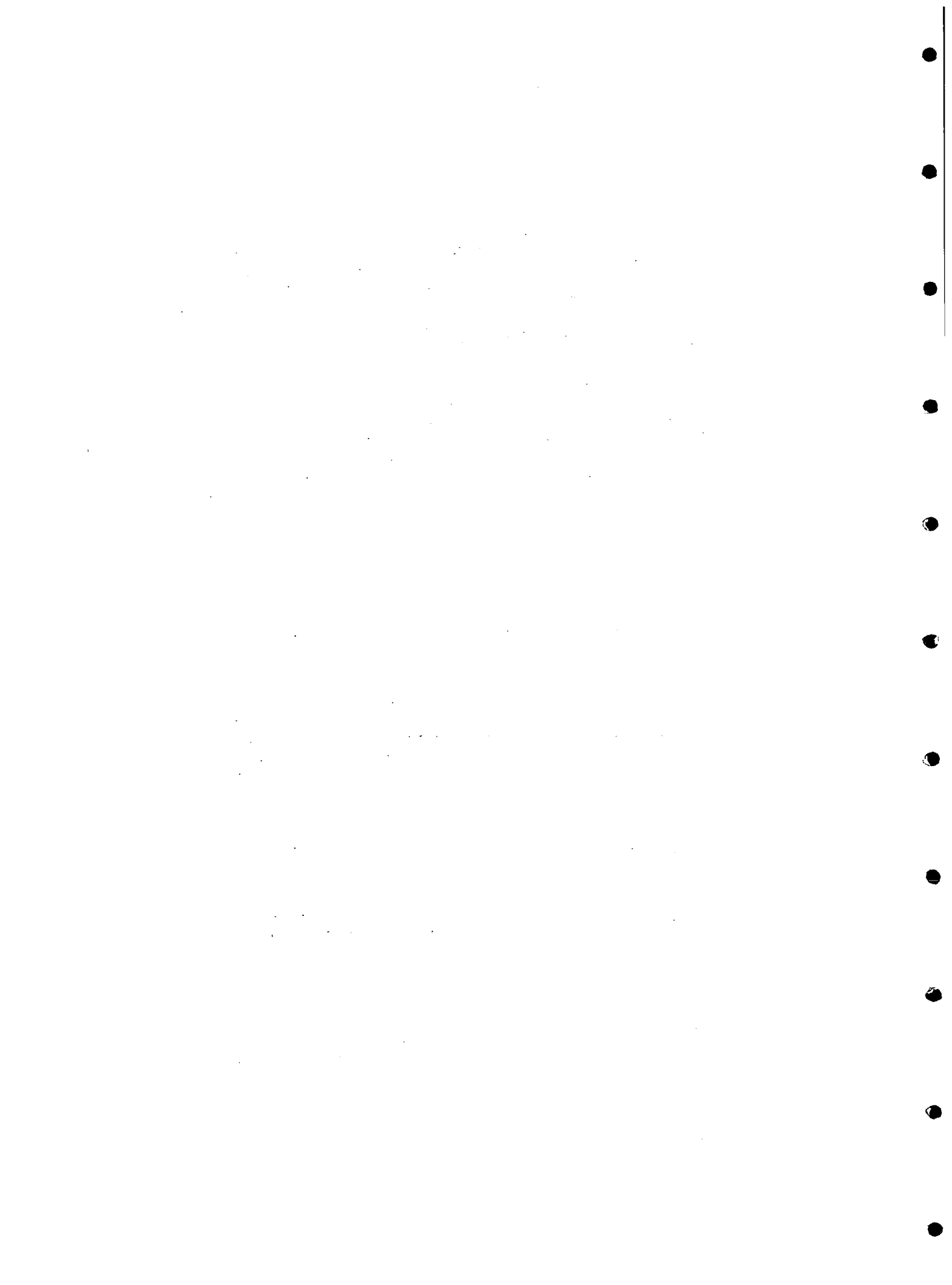
Much of this coding can be done while the next case is being called, and when the arraignment prosecutor is finished with the case jacket. However, if the pace is too fast, do as much coding as possible and code the remainder from the case jackets after court recesses. Do not hold up court proceedings to code information.

3. Check off each case on the Lockup, Bond or Citation List as coding is completed. Note any rearraignments or add-ons on the back of the Lockup List. These lists are used at the end of the day to verify case screening and paper flow. File the lists in date order for one month. The Arraignment Court Clerk is held accountable for all cases that have been sent to arraignment court. Therefore, a coding form must be completed for every case by the time court ends.

4. After the arraignment courtroom business is over, review all coded Arraignment Forms for completeness. Case jackets are available so that information not coded in the courtroom can be coded.

5. Deliver the Arraignment Forms to the Data Control Clerk (Function 27) no later than 5:00 p.m. the same day. After data entry, these cards are returned to the Arraignment Court Clerk for filing by arraignment date. Retain cards for one week. Before discarding cards for a week old arraignment date, check several against the on-line terminal to ensure that they were entered.

6. Resolve and code errors on the Pre-Indictment Error Arraignment (R295) turnaround documents as assigned by the Quality Control Clerk (Function 29).

7. Assist Quality Control Clerk in correcting any errors detected in arraignment transactions.

IV. Special Circumstances

1. Code needed.

If a code is needed for a prosecutor, judge, or defense attorney, notify the Quality Control Clerk.

D-14

2. No case jacket.

   If there is no case jacket for a defendant who
   is arraigned (usually a defendant who failed to
   appear for a previous arraignment so was brought
   in under a bench warrant), copy required infor-
   mation (case number, PDID, and defendant's name)
   from the Superior Court jacket.

3. Plea or nolle at arraignment.

   If the defendant pleads at arraignment or the case
   is nolled at arraignment, complete a Continuance/
   Disposition Form (R300). Deliver the Continuance/
   Disposition Form to the Data Control Clerk the
   same day.

4. Rebring.

   If a case is rebrought, the Misdemeanor Prose-
   cutor (Function 10) attaches a Misdemeanor Re-
   bring Form to the case jacket. Complete that
   portion of the form not filled in by the Misde-
   meanor Prosecutor and forward the form to the
   Data Control Clerk. If a case is retrought for
   which a Misdemeanor Rebring Form is not received,
   complete one.
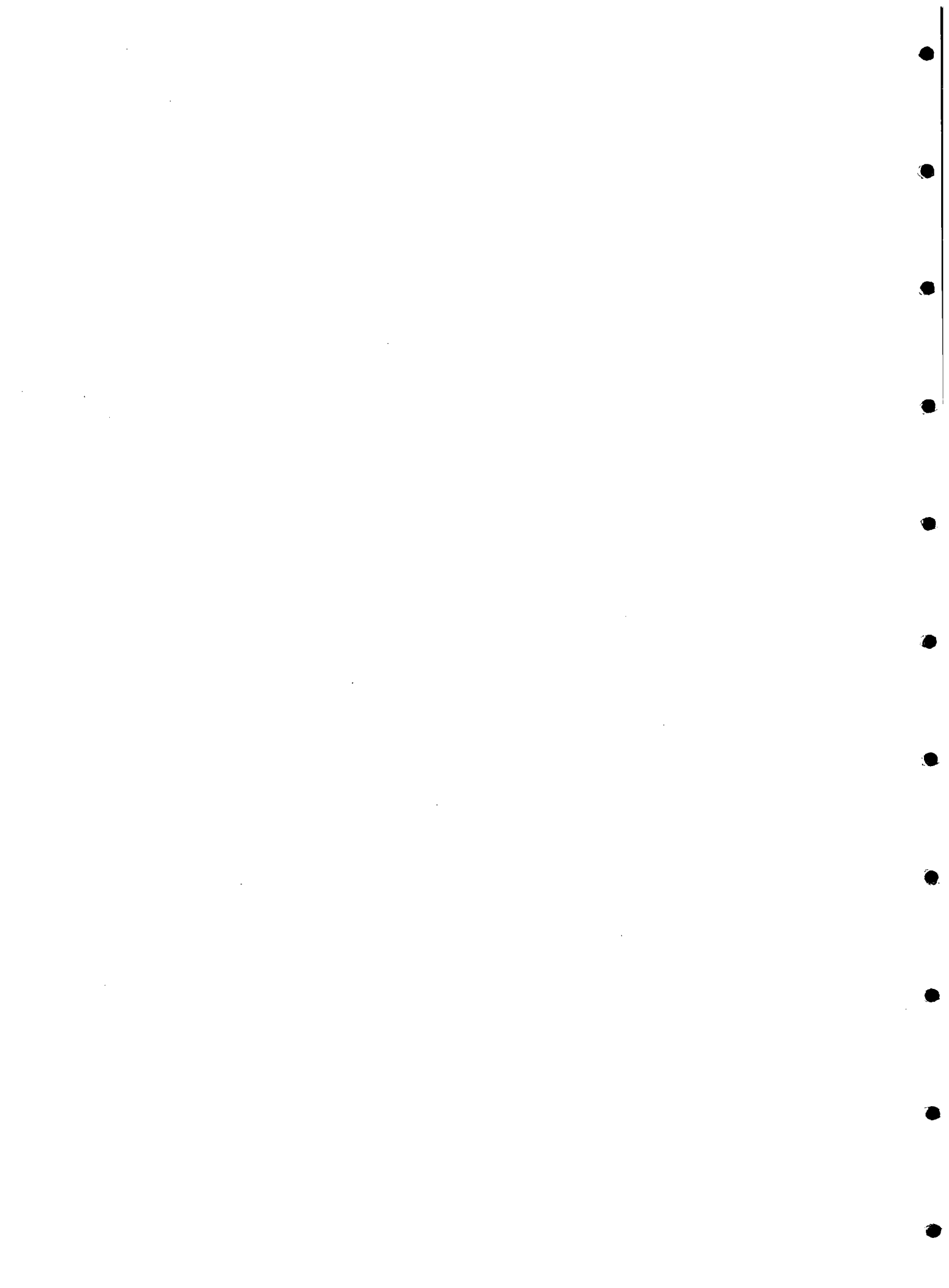
ATTACHMENT E

QUESTIONNAIRE SUBMITTED TO JUDGES
WAYNE COUNTY, MICHIGAN

QUESTIONNAIRE SUBMITTED TO JUDGES,
WAYNE COUNTY, MICHIGAN

Workshop

1. What is a desirable civil case age, in number of days/
months?

|_____|_____|
from at issue   to court action   to disposition

Comments:

2. What are maximum civil case ages (intervals) beyond which
special action should take place to speed up a disposition?

|_____|_____|
from at issue   to court action   to disposition
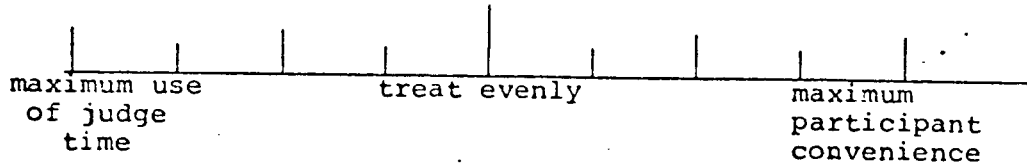
Comments:

3. Do you prefer assignment to:

	Yes	No	No Opinion
Criminal Cases			
Civil Cases			
Dom. Relations			
A Mixture of Cases			

Comments:
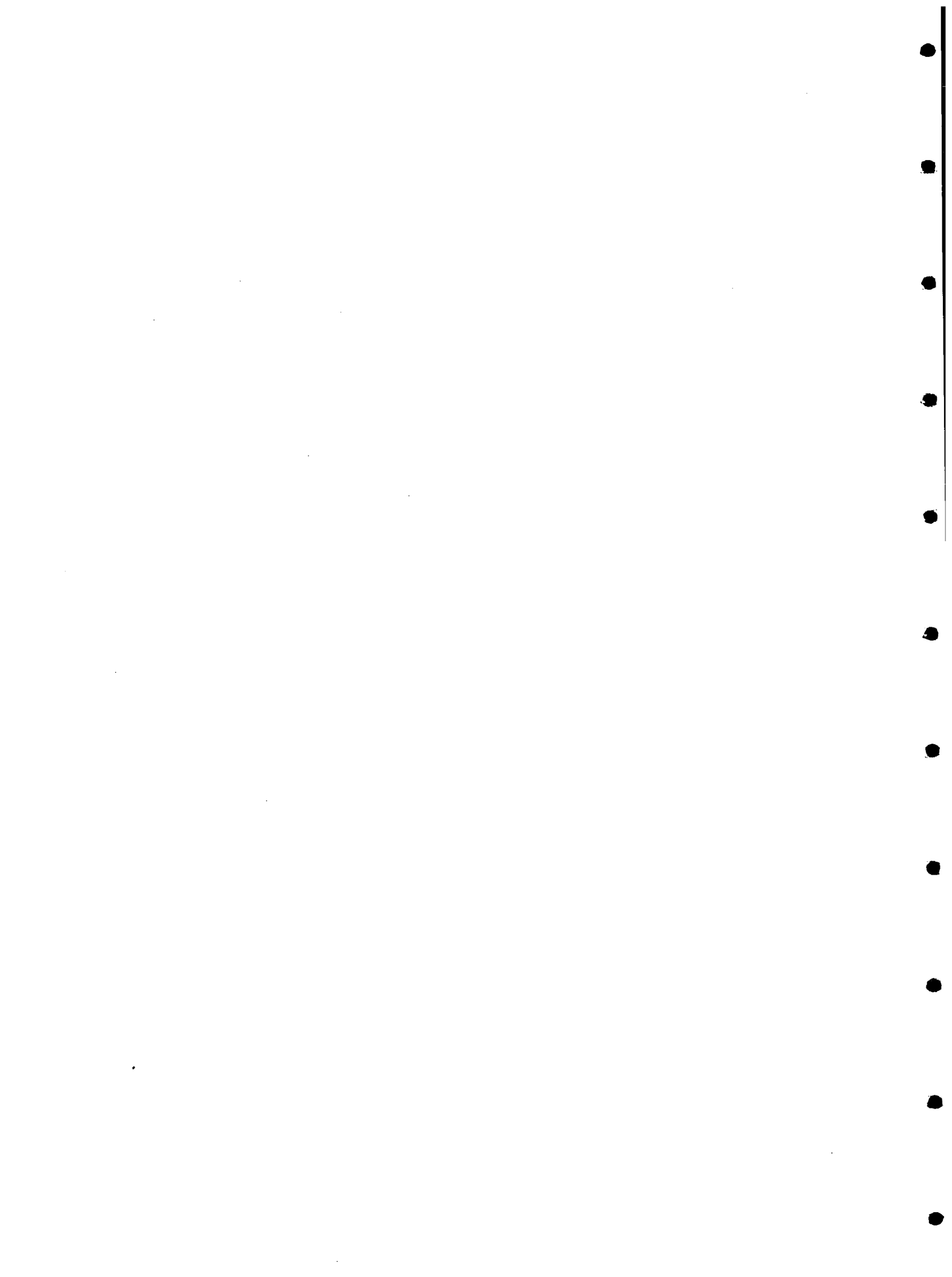
4. In the trade-off between judge time and the convenience of attorneys, litigants, and witnesses, what should the scheduling system strive to achieve?

```
    |    |    |    |    |    |    |    |    |.
maximum use        treat evenly        maximum
  of judge                             participant
    time                               convenience
```

    Comments:

5. A. Should the court promulgate a well structured continuance policy?

        Yes ___   No ___   No Opinion ___

    B. Who should grant continuances?

        Individual Judges   Yes ____   No ____

        Assignment Office   Yes ____   No ____

        Chief Judges   Yes ____   No ____

        _____ Yes ____   No ____

    Comments:

6. How should the effectiveness of the court's scheduling system be measured?

		Useful	Don't Know	Useless
A.	Average case age at disposition			
B.	Number of cases disposed of			
C.	Ratio of cases tried (disposed of)/cases scheduled			
D.	Increase/decrease in backlog			
E.	Age of pending cases			
F.	_____			

Comments:

7. Should every trial judge

A. Be assigned the same number of cases? Yes ___ No ___

B. Be required to spend the same amount of time on the bench (regardless of the number of cases disposed of)? Yes ___ No ___

Comments:

8.   A.   Do you like the present system of trials in the mornings?

               Yes ____   No ____

      B.   How does the new system compare with the old system (Monday-Thursday)?

               Better ____   Same ____   Not as Good ____

      C.   What would you like the scheduling system to do for you (improvements, changes, etc.)?

      If you would like to discuss your comments or any other aspect of the scheduling project, please give your name.

      _____

               Thank you.

                    E-4

ATTACHMENT F

PROPOSED PROCEDURES FOR OPERATING THE
AUTOMATED COURT SCHEDULING SYSTEM

I.   GENERAL

The proposed Court Scheduling System (CSS) described in
this document is designed to be linked up to a case tracking
system, such as the one operated by the Clerk of the Circuit
Court for Wayne county, Detroit, Michigan.   CSS is designed
in such a way that it accesses the case tracking system and
extracts a predetermined number of pending civil and crimi-
nal cases that are queued awaiting court action.   The system
then automatically schedules these cases for all future court
events. Cases are scheduled up to a maximum of 10 weeks into
the future on CSS.   Civil cases are scheduled on the basis of
case age, with the oldest cases coming first, whereas criminal
cases are scheduled on the basis of case age and whether or
not the defendant is in custody.   Judges are assigned to a
case either by the County Clerk or by the Assignment Clerk.
This information is then entered into CSS by the personnel
within the Assignment Clerk's Office.   CSS is set up so that
any assignments of court events by the computer can be manu-
ally overridden and modified when necessary.   In addition,
continuances and motions are also entered manually by the
Assignment Clerk's Office.   The system is programmed to:
(1) keep a record of all necessary court scheduling informa-
tion by case; (2) identify potential scheduling conflicts be-
tween the various participants of a case; (3) monitor the
overall status of events scheduled for the next 10 weeks;
(4) provide a listing of all cases scheduled for a given date;

F-1
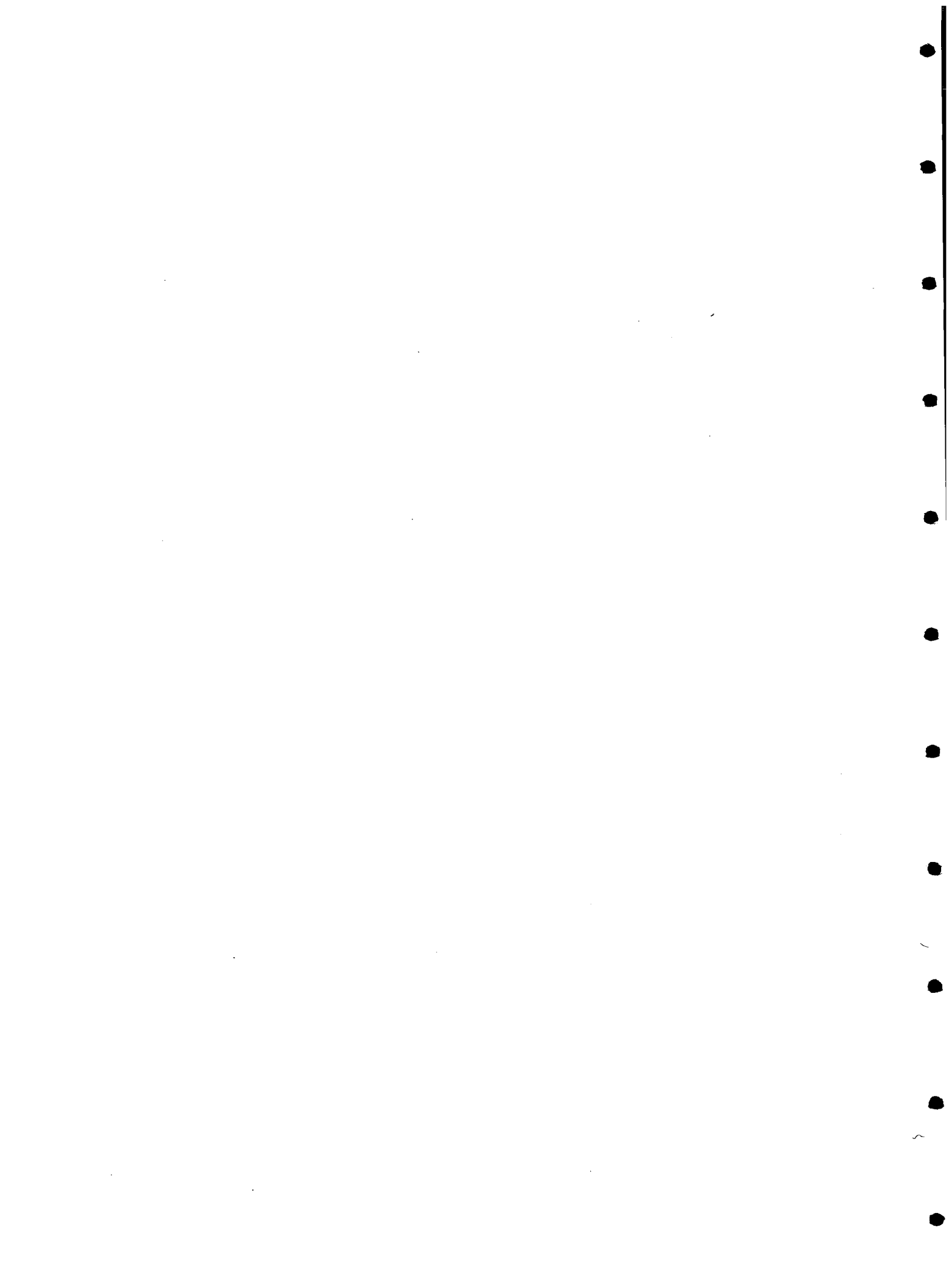
(5) furnish management with an overview of the total number of cases pending at each stage of the judicial process; and

(6) produce notices to attorneys of upcoming court events.

II. REQUIREMENTS OF THE CASE-TRACKING SYSTEM

In order for CSS to interface with a case-tracking system, the tracking system must be comprehensive enough to capture basic case-processing information that is normally required by the court. This required information from the tracking system includes the following:

(1) Names of trial parties, including attorneys for plaintiffs/prosecutors, attorneys for defendants, names of defendants and plaintiffs, assigned judge

(2) Procedures for gathering records on the outcome of each court event, including all continuances and dispositions on the same date that the event occurs

(3) Case identification factors, including case number and dates of original filing

(4) A record of police officer or specialist witnesses in a criminal case.

CSS can be programmed to interface only with the Wayne County Clerk of the Circuit Court Information System.

III. CAPABILITIES OF THE COURT SCHEDULING SYSTEM (CSS)

A. Record Individual Case-Scheduling Information

CSS Provides a Case Display (Figure 1), through an on-line terminal, which shows the status of the case for the scheduler as well as providing basic information on the participants of the case. It is intended to be used by a

F-2
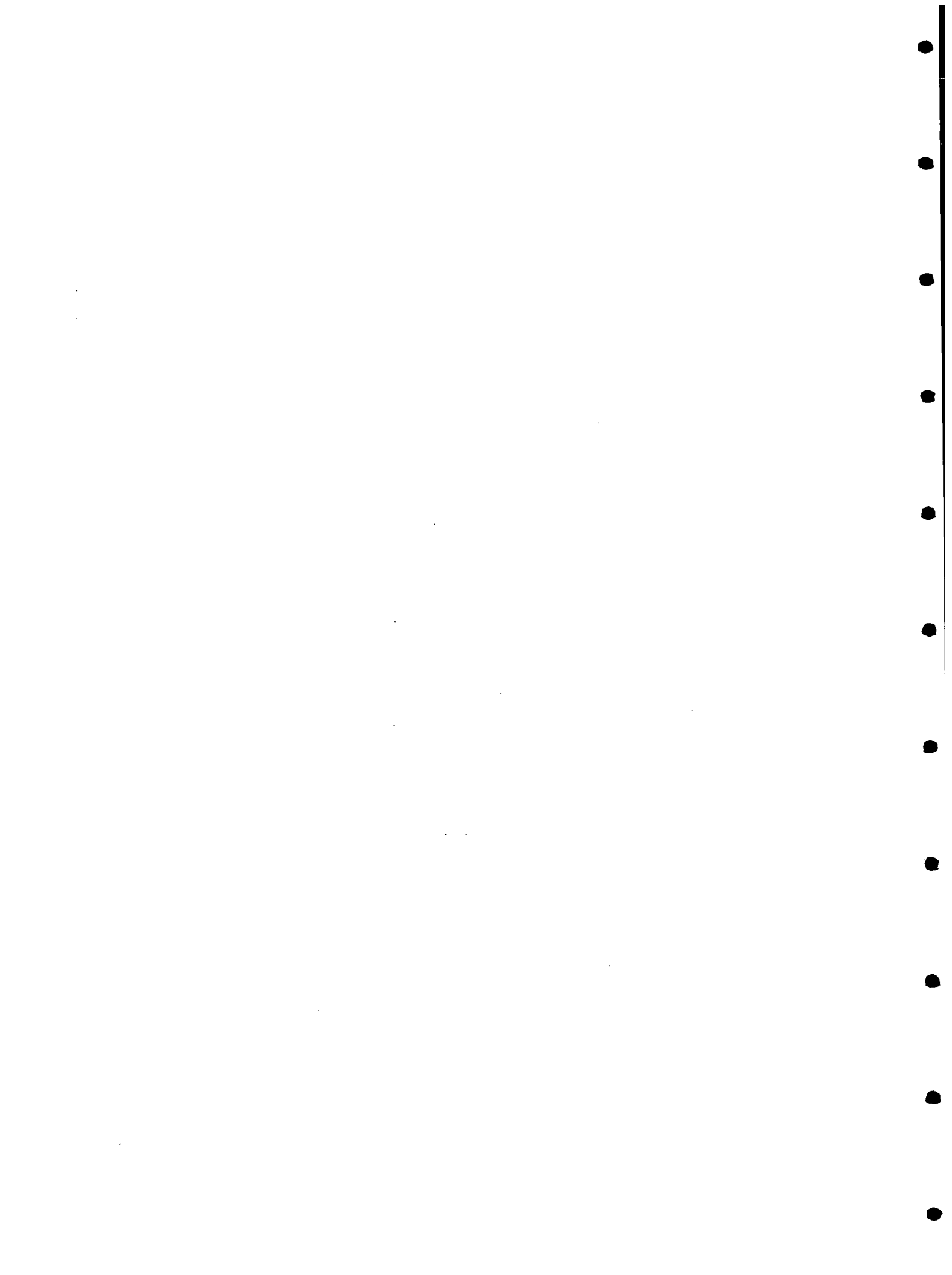
FIGURE 1

Case Display

```
                        CASE DISPLAY                        PAGE 1
                        MONTH    DD, YEAR


        CASE #: CR770243                    JUDGE: JOHN MC CLELLAN

         TITLE: MORRISON, WAYNE J     PROSEC. ATTY: MARVIN KELLER

          TYPE: FELONY                DEFENSE ATTY: JACK GALANOWSKI

CAUSE OF                            DEFENDANT STATUS: JAIL
ACTION/CHARGES: GRAND THEFT VEH
                                        CASE AGE: 52 DAYS
NEXT EVENT/DATE: TRIAL          09/12/77
                                      CASE STATUS: SCHEDULED
LAST EVENT/DATE: ARRAIGNMENT    08/28/77

POLICE/OTHER WITNESSES:

        LAWRENCE O'BRIAN      BADGE - 4684  OLIVIA MC DONALD    - EYE WITNESS

        GREGORY NORTH         - VICTIM      JACQUELINE NORTH    - COMPLAINER

REMARKS:
```

F-3
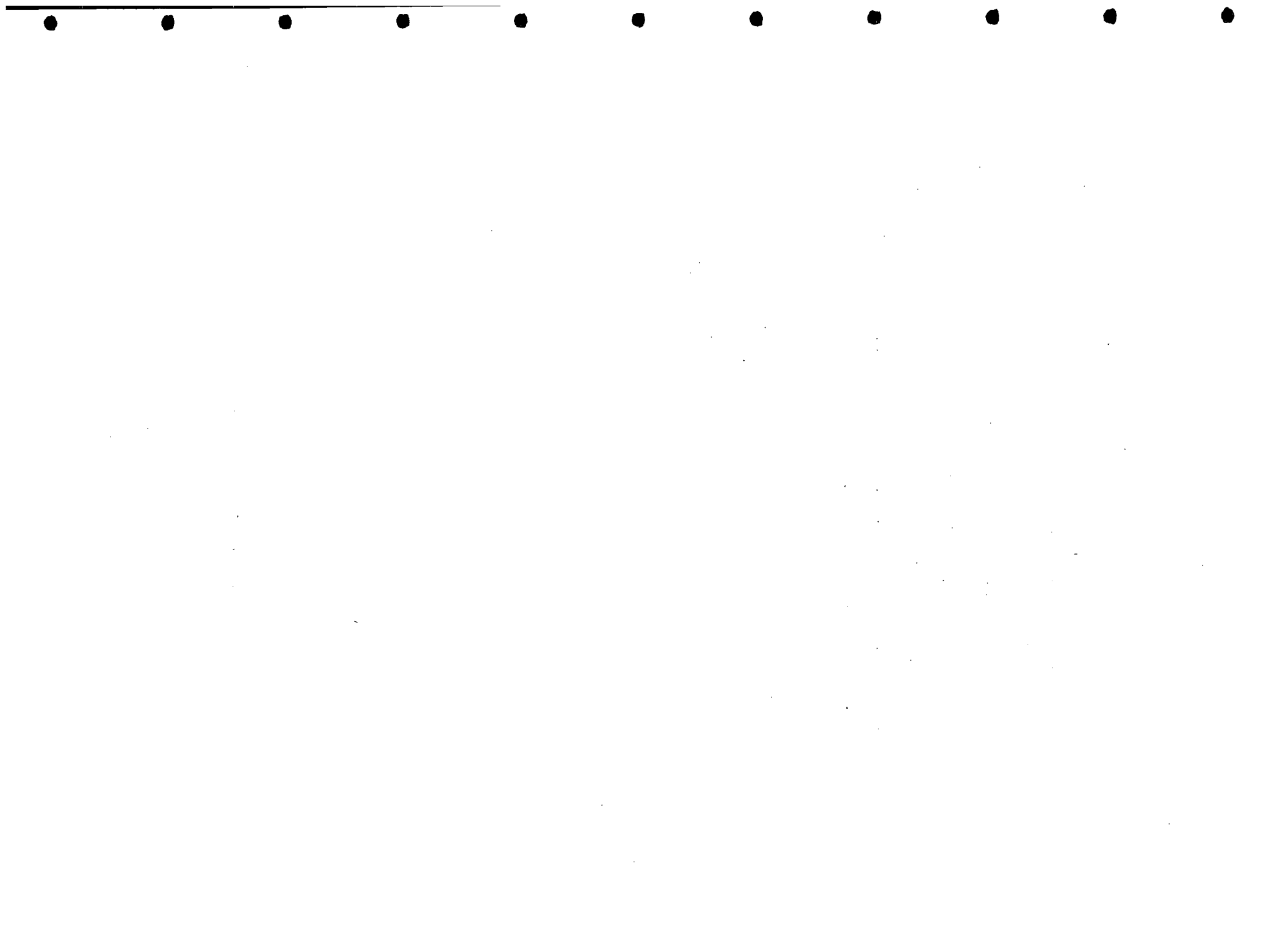
scheduler when checking on the status of a particular case. The display provides the following information:

- case number
- case title--plaintiff(s) or defendant(s)
- case type
- judge assigned (if any)
- plaintiff(s) attorney(s)
- cause of action/charges
- defendant status
- next scheduled event and date
- last scheduled event and date
- case age
- case status
- police and other witnesses
- remarks

B. Identify Scheduling Conflicts Between Participants in a Case

One of the most difficult tasks for a scheduler, particularly in a civil action, is to set a court appearance date that is mutually agreeable to all trial parties. This is because the scheduler did not know, when setting a court event date, whether or not attorneys or police officers were available or tied up in court on another case. Before the CSS was developed, schedulers could only avoid conflicts in schedules by manually contacting each trial party and trying to choose a mutually agreeable date. In some cases, that could be a

time-consuming process. With CSS, an on-line Case Partici-
pants Schedule (Figure 2) can be called up on a computer
terminal located in the scheduler's office. The display will
show the name and phone numbers of all the trial parties in a
given case and furnish a calendar one month in advance of a
given date. The calendar will display by date those cases
in which any trial party is scheduled to participate during
that month. Using this schedule, the scheduler can instantly
select a date that does not conflict with other court sched-
ules of any of the trial parties. The calendar will also
show those days that are not available for any court actions
because of holidays or special events, such as judicial
conferences.

C. Monitor the Status of the Calendar

Management in the scheduler's office can be provided with
Weekly Calendar Status Monitor Reports (Figure 3) either on-
line through a terminal or by a hard-copy printout. Each of
these reports will provide a day-by-day accounting of the num-
ber of available slots for which various types of court events
can be set, including the number already set, number of slots
available to be set, the average probabilities of this number
of events being held, and the total estimated duration in
hours. The report is used for indicating the desired and ac-
tual loading of the calendar for future dates, for reassigning/
continuing cases and for detecting imbalances in calendars in
time to reallocate resources or take other actions.

FIGURE 2

Case Participant Schedule

PARTICIPANTS IN CRM. CASE # 76-0234   STATE VS WHITE

```
1. (JD) JUDGE:         TOM JONES   COURTRM 11
2. (AP) PROSEC. ATTY: FRANK HOGAN (6724) PHONE: 894-7627
3. (AD) DEFENSE ATTY: ED WILLIAMS (4976) PHONE: 663-5240
4. (WP) POLICE OFCR:  SID KETCHEM (HPD-4231) SHIFT: 3RD-5/15, 2ND-5/30
5. (WC) CHEMIST:       JJ BEAKER   PHONE: 961-1324
```

FOR PARTICIPANT SCHEDULE ENTER: (1,2,3)
    1 - S=SCHEDULE, N=NO SCHEDULE, 2 - AL=ALL PARTICIPANTS,
    01 - 05=INDIVID. PARTICIPANTS, 3 - MM/DD/YY=STARTING PERIOD.

     MAY SCHEDULE FOR PARTICIPANTS IN CR 76-0234   STARTING: 05/02/77

```
      2              3              4            5              6
AP M CR 76-0234 AP M CR 76-0234 AP M CR 76-0234 AP          AP
AD D CV 75-1886 AD              AD              AD D CV 76-1123 AD
WP              WP              WP              WP           WP DO
WC VAC          WC VAC          WC VAC          WC VAC       WC VAC
------------------------------------------------------------------
      9             10             11           12            13
AP              AP              AP M CR 77-0013 AP          AP VAC
AD              AD              AD              AD           AD
WP DO           WP              WP              WP           WP
WC              WC              WC              WC           WC
------------------------------------------------------------------
NOTE: (PAGE 2 DISPLAYS LINES 1 THRU 10 ABOVE, THEN CONTINUES)
     16             17             18           19            20
AP              AP              AP              AP           JUDICIAL
AD              AD              AD              AD           CONFERENCE
WP              WP              WP              WP
WC              WC              WC              WC
------------------------------------------------------------------
     23             24             25           26            27
AP              AP              AP              AP           AP
AD              AD              AD              AD           AD
WP              WP              WP              WP           WP
WC              WC              WC              WC           WC
------------------------------------------------------------------
     30             31
HOLIDAY         AP
                AD
                WP
                WC
```

Calendar Status Monitor

WAYNE COUNTY CIRCUIT COURT   8-31-77
CALENDAR STATUS MONITOR
DIVORCE AND CIVIL CASES

	MON	TUE	WED	THR	FRI
UNCONT. DIVORCE TRIALS	# SET: 14 # TO SET: 32 JUDGES: 1 PROB: 3 DUR: 9-HRS	# SET: 7 # TO SET: 32 JUDGES: 1 PROB: 8 DUR: 2.5-HRS	# SET: 10 # TO SET: 32 JUDGES: 1 PROB: 3 DUR: 6-HRS	# SET: 4 # TO SET: 32 JUDGES: 1 PROB: 3 DUR: 2-HRS	# SET: 2 # TO SET: 32 JUDGES: 1 PROB: 4 DUR: 1-HRS
CONTESTED DIVORCE TRIALS	# SET: 12 # TO SET: 15 JUDGES: 5 PROB: 4 DUR: 12-HRS	# SET: 7 # TO SET: 15 JUDGES: 5 PROB: 4 DUR: 7-HRS	# SET: 12 # TO SET: 15 JUDGES: 5 PROB: 4 DUR: 12-HRS	# SET: 6 # TO SET: 15 JUDGES: 5 PROB: 4 DUR: 6-HRS	# SET: 8 # TO SET: 15 JUDGES: 5 PROB: 4 DUR: 8-HRS
CIVIL PRE-TRIAL CONF	#SET: # TO SET: JUDGES: PROB: DUR:	# SET: # TO SET: JUDGES: PROB: DUR:	# SET: # TO SET: JUDGES: PROB: DUR:	# SET: # TO SET: JUDGES: PROB: DUR:	# SET: # TO SET: JUDGES: PROB: DUR:
SETT CONF AND TRIAL	# SET: 28 # TO SET: 30 JUDGES 25 PROB: 4 DUR: 112-HRS	# SET: 26 # TO SET: 30 JUDGES: 25 PROB: 4 DUR: 104-HRS	# SET: 24 # TO SET: 30 JUDGES: 25 PROB: 4 DUR: 196-HRS	# SET: 20 # TO SET: 30 JUDGES: 25 PROB: 4 DUR: 80-HRS	# SET: 29 # TO SET: 30 JUDGES: 25 PROB: 4 DUR: 116-HRS
CIVIL MOTION	# SET: 12L60S # TO SET:25L75S JUDGES: 25 PROB: 3 DUR: 6-HRS	# SET: 18L16S # TO SET:25L75S JUDGES: 25 PROB: 3 DUR: 12-HRS	# SET: 17L68S # TO SET:25L75S JUDGES: 25 PROB: 3 DUR: 20-HRS	# SET: 12L20S # TO SET:25L75S JUDGES: 26 PROB: 3 DUR: 10-HRS	# SET: 25L75S # TO SET:25L75S JUDGES: 25 PROB: 3 DUR: 22-HRS
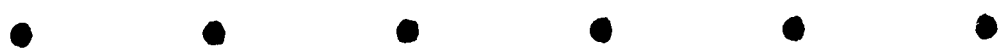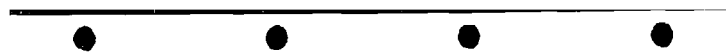
FIGURE 3B

Calendar Status Monitor

```
                    WAYNE COUNTY CIRCUIT COURT
                     CALENDAR STATUS MONITOR                        8-31-77
                         CRIMINAL CASES

              MON              TUE              WED              THR              FRI
ARRAIGN-   # SET:           # SET:           # SET:           # SET:           # SET:
MENT       # TO SET:        # TO SET:        # TO SET:        # TO SET:        # TO SET:
           JUDGES:          JUDGES:          JUDGES:          JUDGES:          JUDGES:
           PROB:            PROB:            PROB:            PROB:            PROB:
           DUR:             DUR:             DUR:             DUR:             DUR:

TRIAL      # SET:   7       # SET:   7       # SET:   6       # SET:   5       # SET:   8
           # TO SET:  8     # TO SET:  8     # TO SET:  8     # TO SET:  8     # TO SET:  8
           JUDGES:  7       JUDGES:  7       JUDGES:  7       JUDGES:  7       JUDGES:  7
           PROB:    3       PROB:    3       PROB:    3       PROB:    3       PROB:    3
           DUR:    28-HRS   DUR:    28-HRS   DUR:   24-HRS    DUR:    20-HRS   DUR:    22-HRS
```

D. Provides a Daily Calendar

CSS Is capable of producing a daily listing of cases set
for a court hearing. An example of such a calendar is shown
in Figure 4. Information includes the following:

- case number
- case title
- offense/cause of action
- estimated duration in hours
- probability of a hearing

A calendar may be produced for a given day, calendar slot, time,
and judge for use both by the schedulers and each courtroom.

E. Provide Management With an Overview of
    Cases Pending in the Scheduling Process

In order for the scheduling manager to do a good job and
make the most efficient use of judicial resources, it is im-
perative that data of cases pending each court event are
promptly made available. The CSS accomplishes this by pro-
viding management with two important tools. The first is a
Case Load by Stage Report (Figure 5), which provides a list-
ing of all cases pending at a given stage in the judicial pro-
cess. This detailed listing of cases within each stage,
which includes the age and status of each case, enables the
scheduler to take action on individual, backlogged cases.
Information on this report includes the following:

- case number
- case title
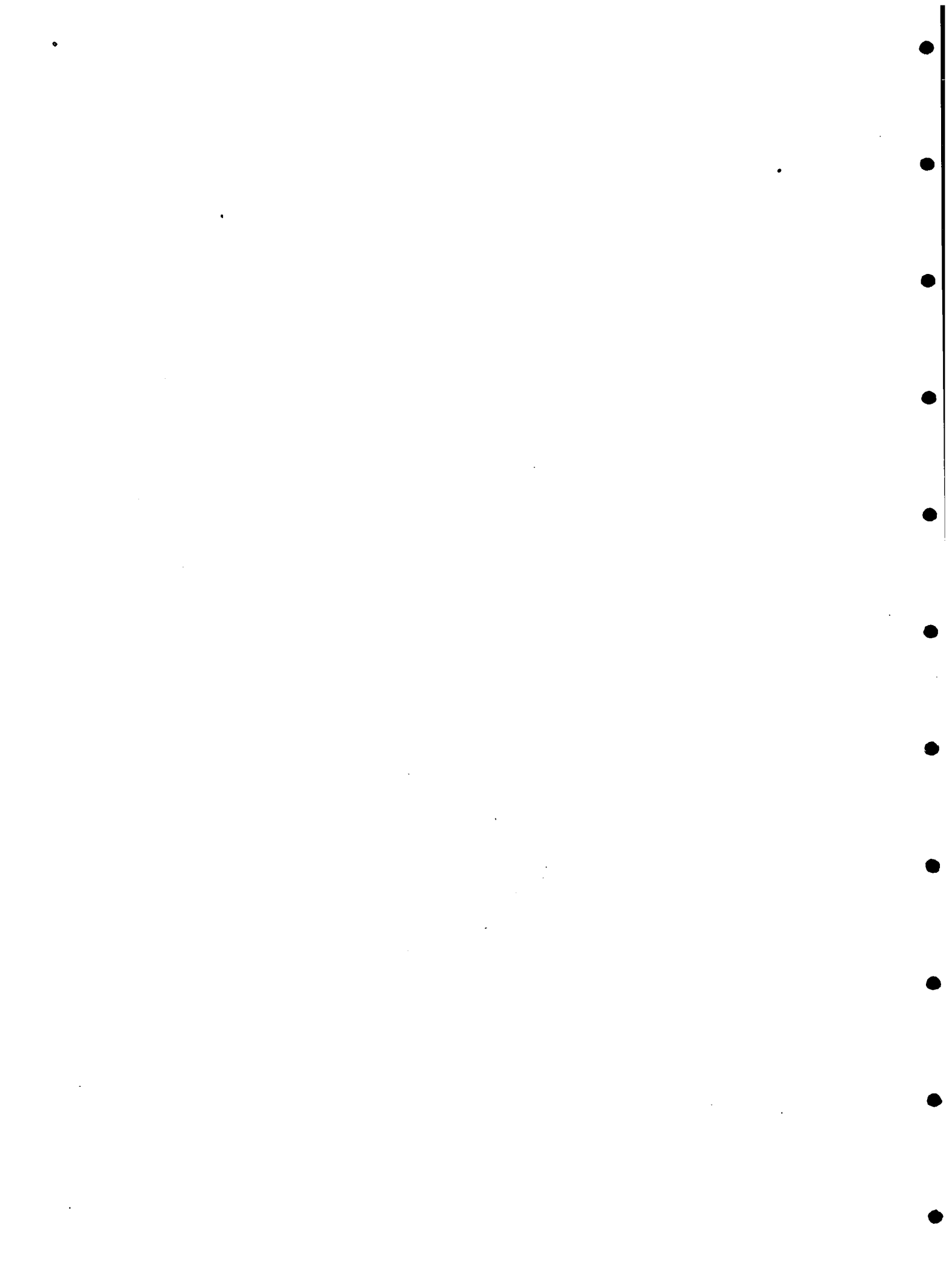
FIGURE 4

Calendar

```
                    TRIAL CALENDAR                        PAGE 1
              WAYNE COUNTY CIRCUIT COURT

                     MONTH  DD, YEAR

           DEFENDANT/              OFFENSE/CAUSE
    CASE   ENTITLEMENT             OF ACTION        EST HRS  PROB
    ....   -----------             -------------    -------  ----

001 F7405527  STANDVICH            INJURY CHILD         6      4
002 F7509558  PRITCHETT            FORG                60      1
003 F7512157  ALLEN               THEFT               12      1
004 F7512158  ALLEN               THEFT               12      4
005 F7512237  WILLIS              AT/MUR              60      4
006 F7512238  WILLIS              MUR                 60      1

TOTAL  6 CASES   AVERAGE EST HRS:  35 HRS   AVERAGE PROB:  2.5
```

FIGURE 5

Case Load by Stage

```
                          CASE LOAD BY STAGE                      PAGE 1
                       WAYNE COUNTY CIRCUIT COURT
                       CASES IN STAGE 7, AWAITING TRIAL
```

JUDGE ALAN MC BRIDE   MONTH DD, YEAR

CASE	DEFENDANT/ ENTITLEMENT	OFFENSE/CAUSE OF ACTION	EST HRS	PROB	STAGE & DAYS IN	CASE AGE
001 F7405527 STANDVICH		INJURY CHILD	6	4	7-85	340
002 F7508558 PRITCHETT		FORG	60	1	7-12	175
003 F7512157 ALLEN		THEFT	12	1	7-2	168
004 F7512158 ALLEN		THEFT	12	4	7-2	168
005 F7512237 WILLIS		AT/MUR	60	4	7-12	155
006 F7512238 WILLIS		MUR	60	1	7-12	155
007 F7601166 ALLEN		THEFT	6	3	7-40	148
008 F7608402 SANCHEZ		BURG/BLDG	9	4	7-27	142
009 F7609036 GERMAINE		UNAUTH USE VEH	2	4	7-37	110
010 F7609678 JASON		FORG	4	3	7-5	102
011 F7609716 JIMINES		THEFT	12	4	7-33	81
012 F7610392 BATES		CC/ABUSE	6	2	7-41	89
013 F7700329 ADAMS		BURG/VEH	6	2	7-51	89
014 F7700501 JACKSON		POSS/MJ	6	4	7-44	84
015 F7700638 FISCHER		THEFT REIN	6	8	7-40	82

TOTAL 15 CASES   AVERAGE TIME IN STAGE: 30 DAYS   AVERAGE CASE AGE: 140 DAYS

- offense/cause of action

- estimated duration in hours

- probability of a hearing

- stage and number of days in stage

The following is a listing of stages and numbers:

- case age from filing/initiation

- totals for number of cases, average stage age and average case age

Divorce cases

1 - Awaiting Friend of Court Action

2 - Awaiting Trial

Civil Cases

3 - Awaiting Pretrial Conference

4 - In Mediation

5 - Awaiting Settlement Conference and Trial

Criminal Cases

6 - Awaiting Arraignment and Pretrial Hearing

7 - Awaiting Trial

8 - Awaiting Sentence

9 - Awaiting Post-Conviction Hearing

A second management report produced by CSS enables the scheduler to obtain a summary of cases pending each of the stages in the criminal and civil case process. The report, entitled "Case Load Status Summary" (Figure 6), is normally produced on a weekly basis. It furnishes management with a statistical summary on the number of cases pending each stage,
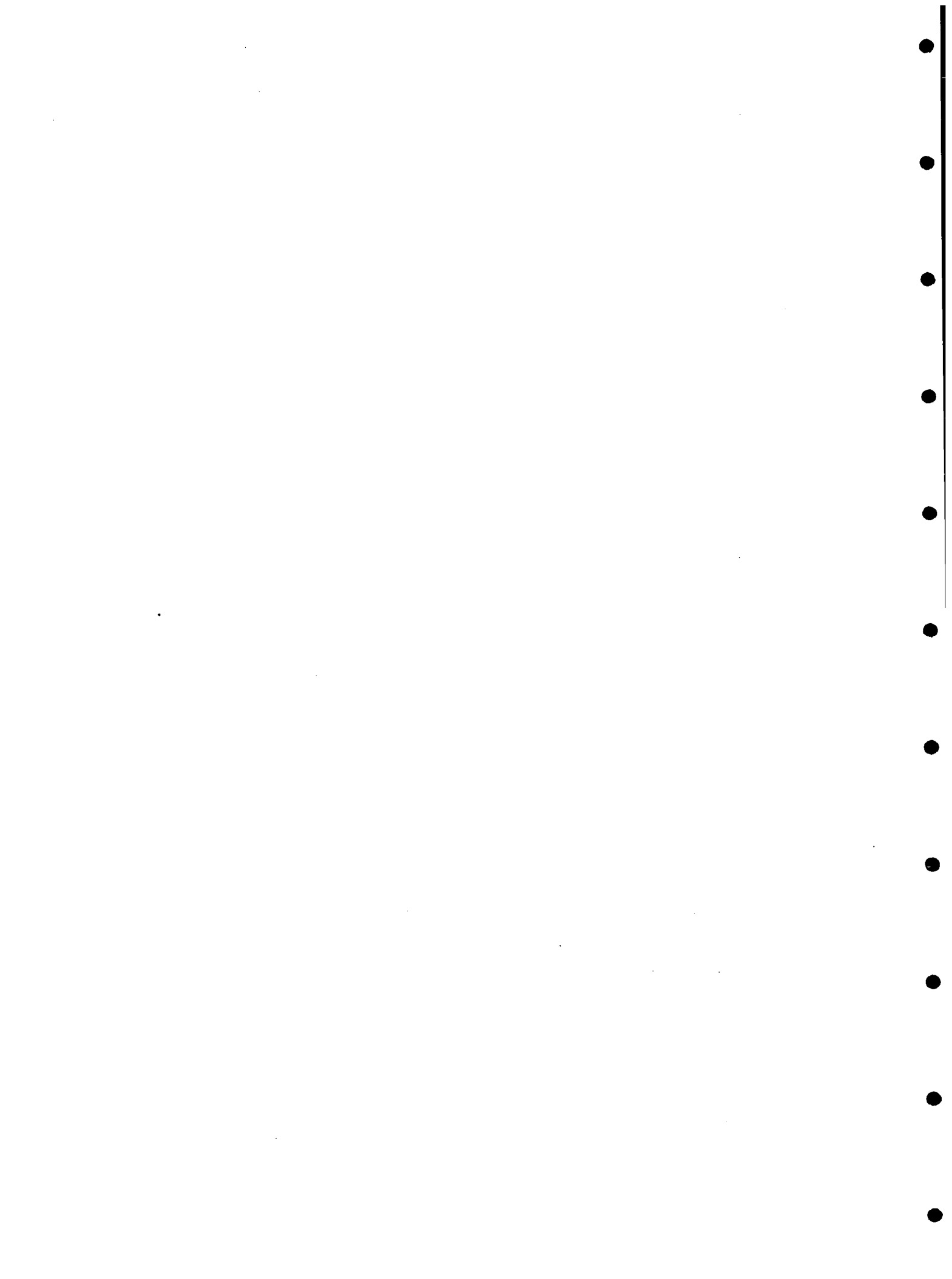
FIGURE 6A

Case Load Status Summary Report

(Divorce Cases)

CASE LOAD STATUS SUMMARY
DIVORCE CASES

PAGE 1

WEEK ENDING: MM/DD/YY

PREPARED ON: MM/DD/YY

STAGE	# CASES	AVG. TIME IN STAGE	EXPECTED DISP. AGE	EXCEEDS NOW	STAND. EXPECTED
1. AWAITING FOC ACTION					
TIME STANDARD: 560 DAYS	1350	49 DAYS	169 DAYS	0	0
CAPACITY: 1020					
2. AWAITING TRIAL	5580	119 DAYS	180 DAYS	0	0
TIME STANDARD: 170 DAYS					
CAPACITY: 6240					
				-BACKLOG-	
TOTAL ALL DIVORCE CASES:	6930	105 DAYS	178 DAYS	0	0
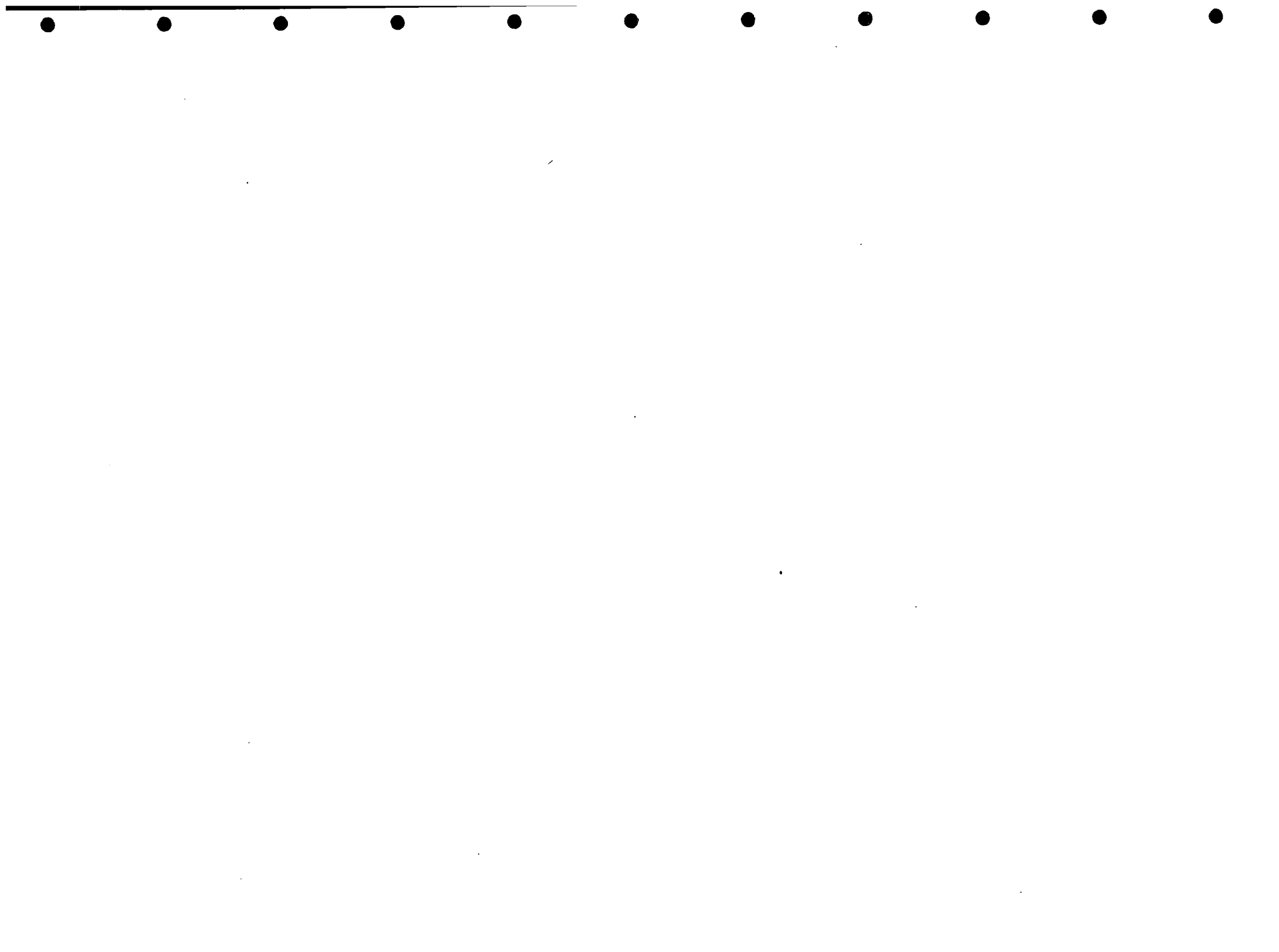
FIGURE 6B

Case Load Status Summary Report

(Civil Cases)

CASE LOAD STATUS SUMMARY   PAGE 1
CIVIL CASES
WEEK ENDING: MM/DD/YY

DISTRICT COURT NBR: XX   PREPARED ON: MM/DD/YY

STAGE	# CASES	AVG. TIME IN STAGE	EXPECTED DISP. AGE	EXCEEDS NOW	STAND. EXPECTED
3. AWAITING PT CONF TIME STANDARD: 56 DAYS CAPACITY: 1200	1150	56 DAYS	905 DAYS	0	0
4. IN MEDIATION TIME STANDARD: 100 DAYS CAPACITY: 500	370	98 DAYS	1092 DAYS		0
5. AWAITING SETT CONF AND TRIAL TIME STANDARD: 64 DAYS CAPACITY: 1200	1115	60 DAYS	990 DAYS		0
TOTAL ALL CASES:	2635	64 DAYS	968 DAYS		0

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FIGURE 6C

Case Load Status Summary Report

(Criminal Cases)

CRIMINAL DISTRICT COURT NBR: XX   PREPARED ON: MM/DD/YY

STAGE	# CASES	AVG. TIME IN STAGE	EXPECTED DISP. AGE	EXCEEDS NOW	STAND. EXPECTED
6. AWAITING ARR. & PTH TIME STANDARD: 28 DAYS CAPACITY: 240	235	26 DAYS	90 DAYS	0	0
7. AWAITING TRIAL TIME STANDARD: 42 DAYS CAPACITY: 400	240	45 DAYS	145 DAYS	0	0
8. AWAITING SENTENCE TIME STANDARD: 30 DAYS CAPACITY: 60	46	25 DAYS	170 DAYS		0
9. CRIMINAL MOTIONS TIME STANDARD: 0 CAPACITY: 0	80	0	0	0	0
TOTAL ALL CASES:	601	35 DAYS	123 DAYS	0	0

F-15

the average number of days in the stage, and the expected number of days in which the case will be disposed. It also furnishes statistics on the number of cases presently exceeding the standard time in stage and the number of cases expected to exceed standard by the time the cases are heard. Using this information, management is able to determine at a glance where backlogs exist and take appropriate action to readjust the number of various types of hearings being held each week in order to keep backlogs at a minimum. (See Attachment 1 for scheduling eligibility criteria by stage.)

F. Produce Notices of Upcoming Events

One of the most time-consuming jobs of any court scheduling operation is the notification of parties in a civil or criminal case when the various stages of proceedings are scheduled to take place. In most large courts, this job takes several clerks to accomplish. Since CSS records the names, addresses, and phone numbers of the attorneys of record in the case, the system is programmed to produce a Notice to Appear for Court Action (Figure 7). This notice is generated by CSS and lists all dates that have been set for each stage of proceedings in the case. In the event scheduling changes are necessary, the system will automatically generate a supplemental notice showing the new hearing dates and instructing the recipients to ignore any previous notices.

FIGURE 7

Notice to Appear for Court Action

CASE NO.

CASE TITLE:

STATE OF MICHIGAN
CIRCUIT COURT FOR THE COUNTY OF WAYNE

NOTICE TO APPEAR FOR COURT ACTION

DATE:

As the attorney of record for the _____ in the above captioned case, you are hereby notified that this case has been scheduled for the following court proceedings on the dates, times and at the locations indicated:

Please notify the Assignment Office at 393-0625 if:

1. You are unable to appear for any of these dates

2. There has been a substitution of attorneys

3. The case has been settled (civil cases)

This notice supercedes all previous notices that pertain to this case.

REFER TO IMPORTANT INSTRUCTIONS ON THE REVERSE SIDE

INSTRUCTIONS TO ATTORNEYS

Civil Cases Other Than Divorces or Paternities

1. Attorneys who will try the case and the litigants are required to be present at this hearing.

2. All requests for adjournment of the Settlement Conference or Trial must be presented in writing to the Presiding Judge. No adjournment will be granted except for good cause, the details of which must be specified in the petition.

3. If the case has been settled, you must present a stipulation and order of discontinuance on or before the next court appearance date.

Divorce Cases

1. It is required that the attorneys and litigants be present at this hearing. If the action is resolved at the settlement conference, be prepared to enter a Judgment of divorce.

2. If you are going to proceed to make a motion for "default judgment of divorce" by withdrawing the answer to the complaint or cross complaint, you must notice your motion at least 4 days preceding the Domestic Relation motion day and prior to the trial date, or you may make your motion on the trial date.

3. If there has been a reconciliation, you must present a stipulation and order of discontinuance on or before the next court appearance date.

4. Requests for a first adjournment may be granted by the Assignment Clerk for good cause shown in a Stipulation signed by both attorneys if presented at least ten days prior to the trial date. All subsequent requests for adjournments must be presented in writing to the Presiding Judge. No adjournment will be granted except for good cause, the details of which must be specified in the petition.

Criminal Cases

1. Failure of defendant to be in court will result in forfeiture of bond.

2. No trial shall be adjourned, except by the Presiding Judge for good cause shown upon written motion, seasonably filed, by the party seeking the adjournment.

3. All preliminary motions will be heard by the Trial Judge on Fridays, upon the filing of a motion praecipe with the Assignment Clerk and proper notice to the opposing attorney.

IMPORTANT. Please contact the Assignment Office on the day prior to each event scheduled on the front of this notice to verify your availability to appear.

IV. SPECIFIC PROCEDURES FOR OPERATING THE
     COURT SCHEDULING SYSTEM

A. Contested and Uncontested Divorces

The flowchart in Figure 8 illustrates how contested and uncontested divorce cases are processed using CSS. Each block on the flowchart is numbered so as to correspond to the following numbered sections, which describe the steps in detail.
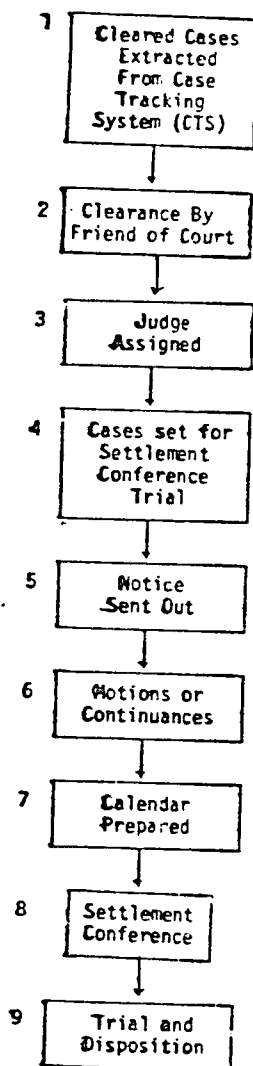
1. Cases Extracted from Case-Tracking System--The case-tracking system is a master list of all types of cases that have been filed and are awaiting court action. Divorce cases are eligible for scheduling as soon as they have been sent to the Friend of the Court (FOC) or a similar court-related agency, which examines the background of the case and provides recommendations or child custody, if applicable.

2. Clearance by Friend of Court--Cases awaiting action by the FOC are kept in this category on CSS until cleared. Each week 90 contested divorces and 160 uncontested divorces that have been "cleared" are extracted from the case-tracking system strictly on the basis of age, with the oldest cases being processed first. This enables the court to monitor FOC productivity.

3. Judge Assigned--A judge is assigned to the case by CSS. Judges are assigned on a rotating basis automatically, according to availability. The Assignment Clerk will have manual override capability to assign a judge different from the judge selected by the system.

FIGURE 8

Proposed Flow of Contested and Uncontested
Divorce Cases Using CSS

```
 1 ┌─────────────┐
   │ Cleared Cases│
   │  Extracted   │
   │  From Case   │
   │  Tracking    │
   │ System (CTS) │
   └──────┬──────┘
          │
 2 ┌──────▼──────┐
   │ Clearance By │
   │Friend of Court│
   └──────┬──────┘
          │
 3 ┌──────▼──────┐
   │    Judge     │
   │   Assigned   │
   └──────┬──────┘
          │
 4 ┌──────▼──────┐
   │ Cases set for│
   │  Settlement  │
   │  Conference  │
   │    Trial     │
   └──────┬──────┘
          │
 5 ┌──────▼──────┐
   │    Notice    │
   │   Sent Out   │
   └──────┬──────┘
          │
 6 ┌──────▼──────┐
   │  Motions or  │
   │ Continuances │
   └──────┬──────┘
          │
 7 ┌──────▼──────┐
   │   Calendar   │
   │   Prepared   │
   └──────┬──────┘
          │
 8 ┌──────▼──────┐
   │  Settlement  │
   │  Conference  │
   └──────┬──────┘
          │
 9 ┌──────▼──────┐
   │   Trial and  │
   │  Disposition │
   └─────────────┘
```
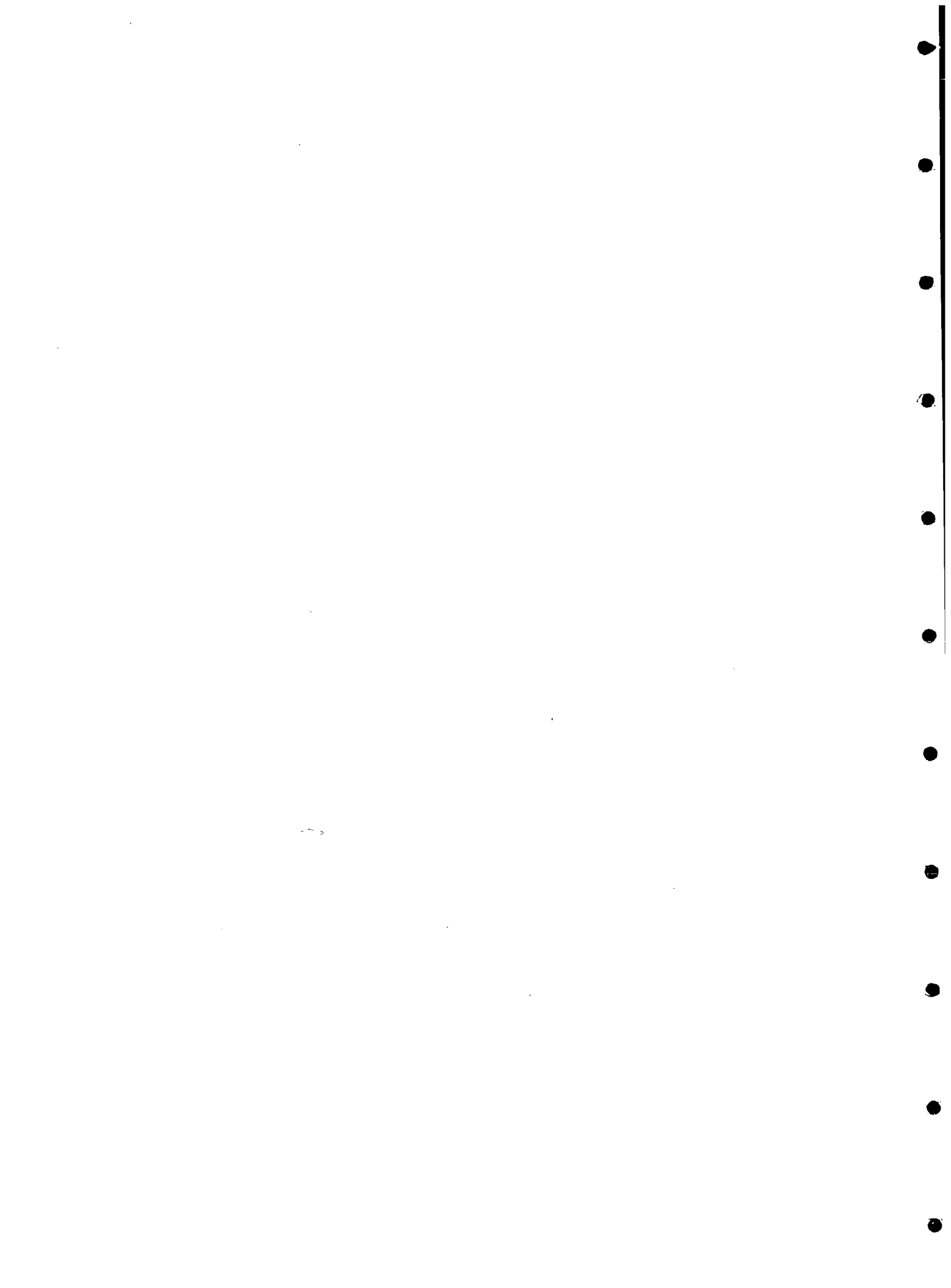
4. Cases Set for Trial--The CSS will automatically set
the cases for settlement conference and trial at least 5 weeks
in advance. The dates selected will be ones on which the at-
torneys in the case have no other cases scheduled on the same
day. If the assigned judge is unable to hear the case, the
case will go to the next available judge on the day of the
trial. Ninety contested divorces and 160 uncontested divorces
may be set each week. These numbers may fluctuate from week
to week, depending upon available judges and the time neces-
sary to process the cases. Scheduling managers refer to the
following CSS outputs in determining what adjustments, if any,
should be made in the number of cases scheduled:

Case Load by Stage Report (Figure 5). The scheduler
will use this report to examine cases in stage 2,
"Divorce Cases Awaiting Trial."

. Case Load Status Summary (Figure 6). Here again, the
scheduler will examine the summary of all cases in
stage 2, "Divorce Cases Awaiting Trial." If a back-
log exists and cases are exceeding the standard age,
the scheduling manager may decide to adjust the number
of cases heard. If this is the case, an adjustment
must be made in the CSS parameter file. This is done
through an on-line terminal.

Both of the above reports are described in detail in section
III.E of this document.

5. Notice Sent Out--A "Notice to Appear for Court Action"
(Figure 7) will automatically be generated for each of the
attorneys of record in the case. The notice will indicate
the date, time, and place of the settlement conference and
trial. It will also furnish instructions to the attorney on
what to do if the parties have reconciled.

6. Motions and Continuances

a. Motions. A "Request for Motion" hearing is filed
with the Assignment Office. The attorney filing the request
indicates whether the motion will be long or short. The
scheduler then checks the Case Participant Schedule (Figure 2)
and the Calendar Status Monitor (Figure 3) on CSS and assigns
a mutually convenient date for both the judge and attorney.
The date selected is a normal slot for a long or short motion,
whichever is applicable. Of course, a judge may hear the
motion any time he is free.

b. Continuances. In the event a continuance is
necessary, it is up to the scheduler to select a date on which
there are no conflicts for the attorneys in the case. This
is accomplished by referring to the on-line Case Participants
Schedule (Figure 2), described in section II.B of this docu-
ment. It will also be necessary to refer to the Calendar
Status Monitor (Figure 3), described in section II.C, to se-
lect a date when a slot most advantageous to the court is
open for the particular procedure. The actual continuance

date selected is entered into CSS using a continuance/
disposition screen.

7. Calendar Prepared--CSS will next produce a calendar
listing all cases set for a particular proceeding on a given
date. The format of the calendar is shown in Figure 4.

8. Settlement Conference--The outcome of the settlement
conference is recorded by the clerk in the courtroom on an
annotated copy of the Settlement Conference Calendar produced
by CSS. This annotated copy is forwarded to the scheduling
office at the end of each court day. The information is
then entered into CSS after normal office hours, using the
continuance/disposition screen.

9. Trial and Disposition--The outcome is recorded in the
courtroom on an annotated Trial Calendar produced by CSS. A
copy is sent to the scheduling office, where the disposition is
entered into CSS after hours, using the continuance/disposition
screen.

B. Other Civil Cases
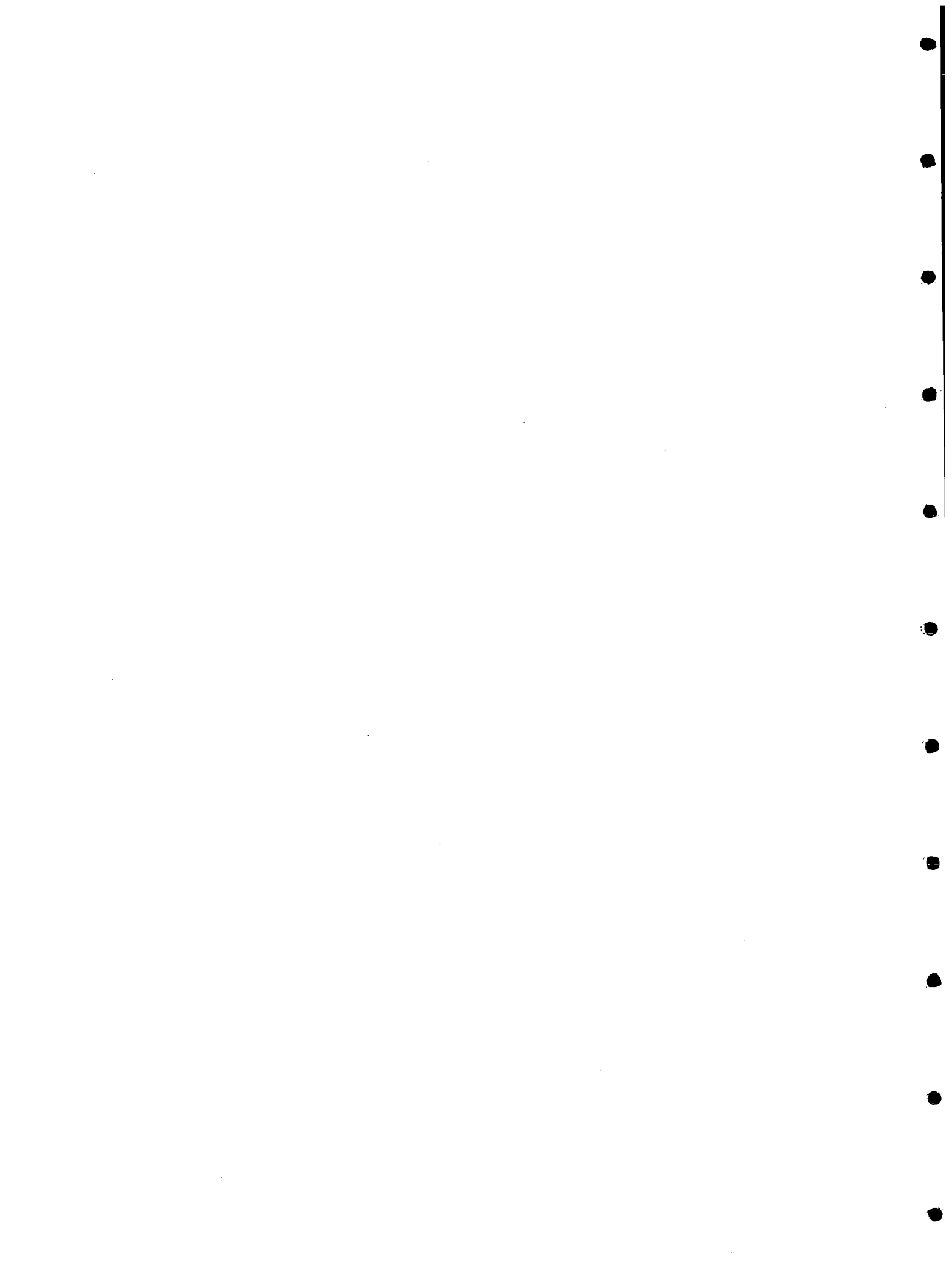
Figure 9 illustrates the flow of civil actions other
than divorce and paternity cases utilizing CSS in the sched-
uling process. The following is a detailed description of
each step through which each civil case may pass. The num-
bered sections below correspond to the numbered blocks on the
flowchart in Figure 9.

1. Cases Extracted from Case-Tracking System--Civil cases
presently remain in the case-tracking system for approximately

FIGURE 9

Proposed Case Flow of Civil Cases Other Than Divorces and Paternity Cases

1. Cases Extracted From Case Tracking System
2. Pretrial Conference, Settlement Conference and Trial Scheduled
3. Notice Sent Out
4. Pretrial Conference
5. Possible Mediation
6. Settlement Conference Final Judge Assigned
7. Settlement Conference
8. Trial Calendar Prepared
9. Motions or Continuances
10. Trial and Disposition
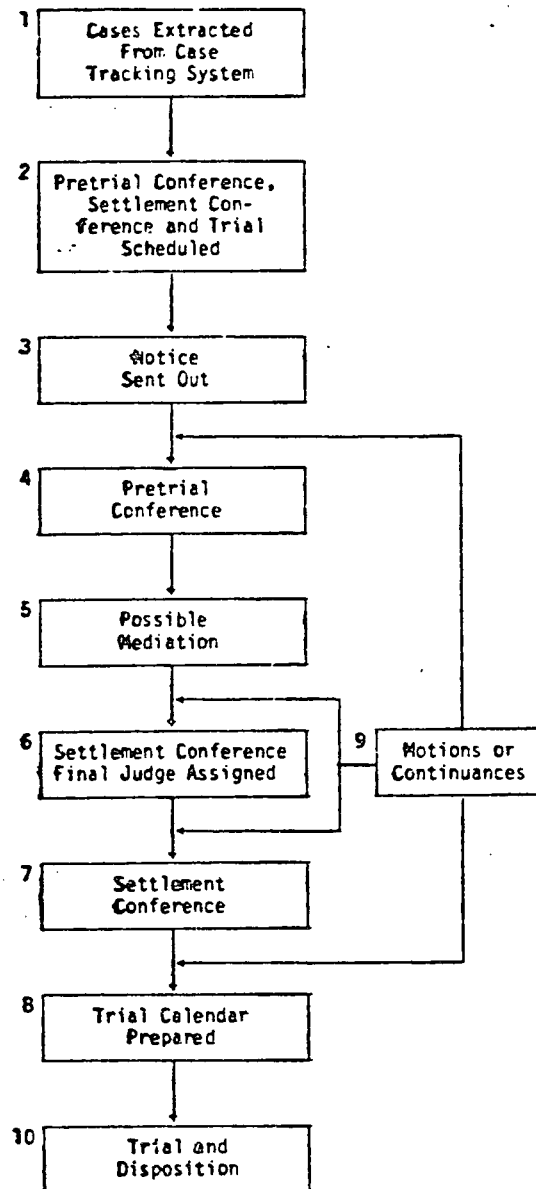
30 months from date of filing before the court is ready for any scheduling action. Each week, 150 cases are extracted from the tracking system on the basis of oldest cases first and placed into CSS. A good ratio of cases to be extracted is 1.2 cases per number of available judges.

2. Pretrial Conference, Settlement Conference, and Trial Scheduled--As soon as cases are pulled into CSS, dates are automatically set for pretrial and settlement conferences and for the trial. The following time periods are used for setting these proceedings:

- Pretrial Conferences--8 weeks in advance at the rate of 3 conferences per day. These slots are set up in CSS and appear on the calendar status monitor.

- Settlement Conferences--4 weeks after the pretrial conference at the rate of 2 conferences per day.

- Trials--As soon as a slot is available. Slots are allocated at the rate of one per day per available judge.

3. Notice Sent Out--A "Notice to Appear for Court Action" (Figure 7) will automatically be generated for each attorney of record in the case. The notice will indicate the date, time, and place of pretrial conference, settlement conference, and trial. The notice will also furnish the attorneys with instructions as to what to do in the event the case has been dropped.

4. Pretrial Conference--The judge for the pretrial con-
ference is assigned by CSS on a rotating basis. Experience
has shown that an estimated 40 percent of all civil cases
are dropped, dismissed, or remanded to a lower court at this
stage of the proceedings. The outcome of the pretrial con-
erence is recorded by the clerk in the courtroom on an anno-
tated Pretrial Conference Calendar. A copy of the calendar
is sent to the scheduling office at the end of each work day,
where update data are immediately entered, using a continuance
or disposition screen.

5. Possible Mediation--It is possible that, following
the pretrial conference, a case may be placed into mediation
either by court order or by stipulation of the parties. The
purpose of mediation is to have an independent panel of at-
torneys and a judge, all of whom are not connected with the
case in any way, review evidence and assign a valuation to
the case, which the parties may accept or reject. Procedures
for processing a case through mediation are discussed in At-
tachment 2 of this report. CSS is not programmed to handle
cases where they are placed into a mediation process. It is
up to a user of CSS to modify the software to add this capa-
bility. Cases that are placed into mediation will appear on
all summons output reports as being in Stage 4, "In Media-
tion." It is up to the Mediation Clerk to use the continuance/
disposition screen to manually enter the next court date at
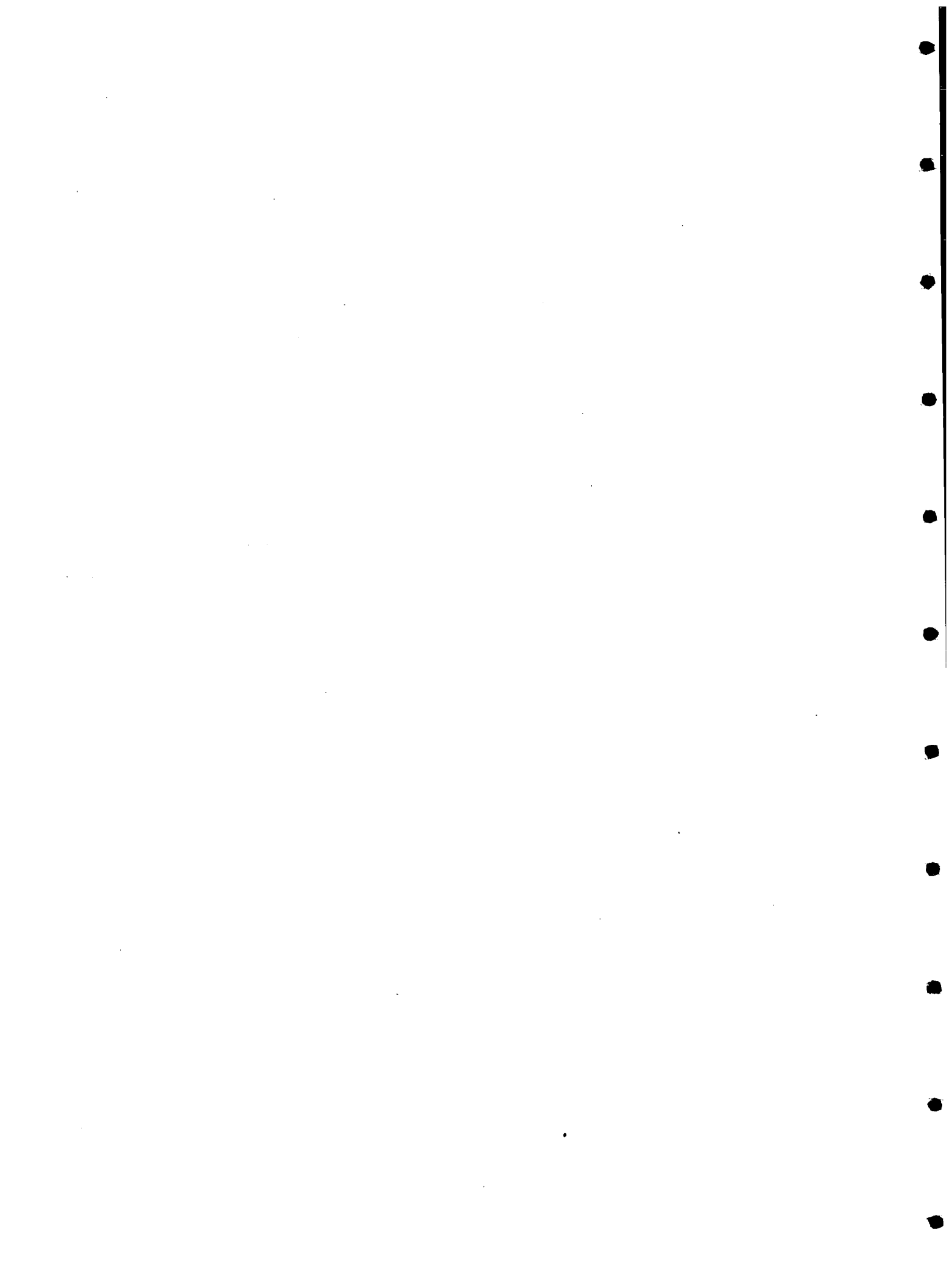
the conclusion of mediation proceedings if the case was not settled.

6. Settlement Conference and Trial Judge Assigned--At this point, CSS will assign the settlement conference and trial dates and next available judge on a rotating basis.

7. Settlement Conference (Optional)--The settlement conference is the final action that immediately precedes trial. It is a final effort on the part of the court to get the parties to settle the case without going to trial. The outcome of the settlement conference is recorded by the courtroom clerk on an annotated version of the Settlement Conference Calendar, a copy of which is sent to the scheduling office. Continuance or disposition data are entered into CSS on-line after normal office hours on the day the settlement conference was held.

8. Trial Calendar Prepared--CSS will produce a calendar listing all civil trials on a given date in a given court. The format is exhibited in Figure 4. These calendars may be used by both the scheduling office and the courtrooms to post a daily listing of cases, and by the courtroom clerk to record the outcome of each case.

9. Motions or Continuances--Attorneys file a request for a motion indicating whether it is long (   ) or short. This request will be entered into CSS using the Case Participants Schedule (Figure 2) and the Calendar Status Monitor (Figure 3).
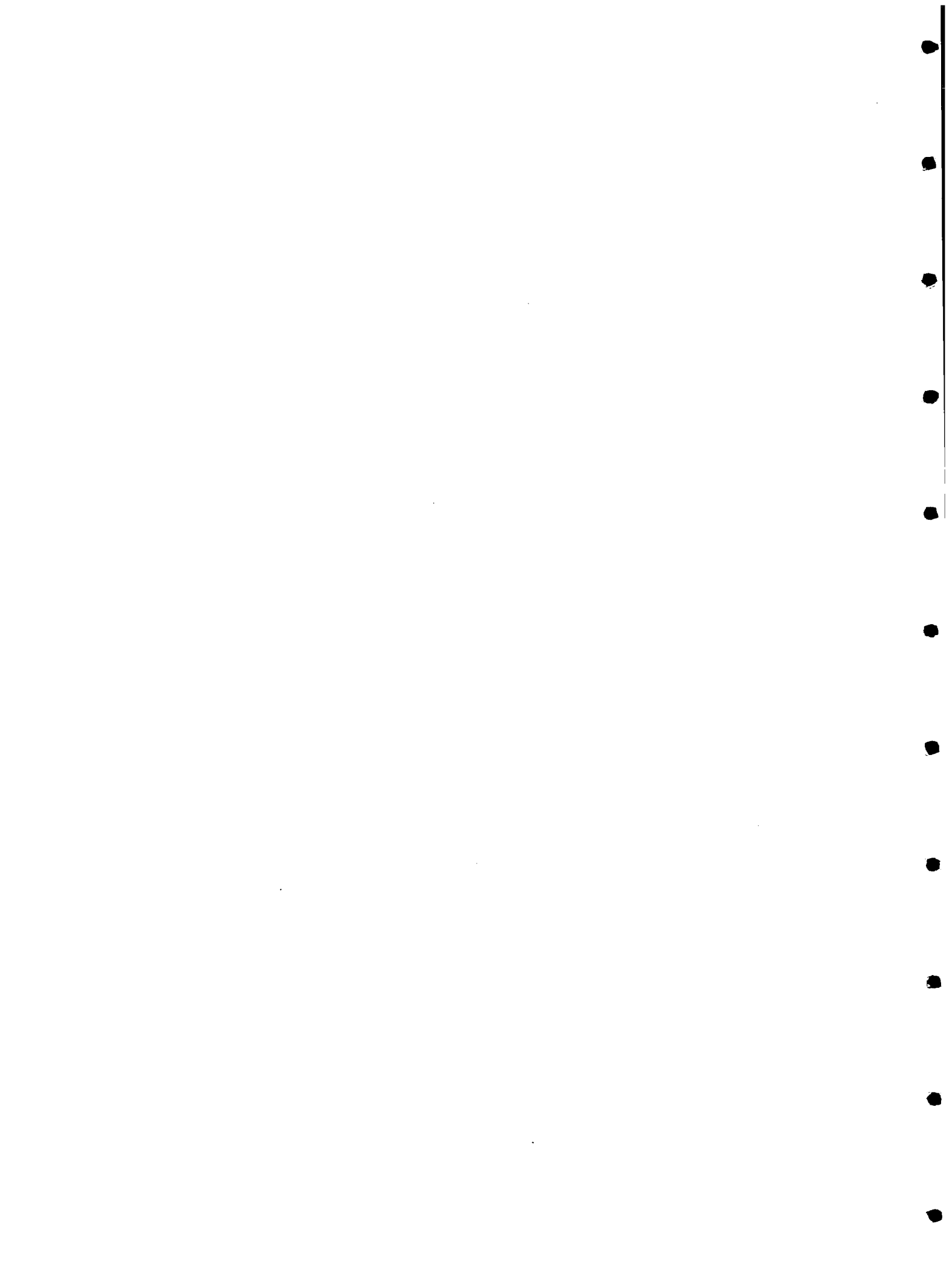
A judge will allot a certain number of slots for long and short

motions. In the event a continuance is necessary, it is up

to the scheduler to select a date on which there are no con-

flicts for the attorneys in the case. This is accomplished

by referring to the on-line Case Participants Schedule (Fig-

ure 2) described in section II.B of this document. It will

also be necessary to refer to the Calendar Status Monitor

(Figure 3), described in section II.C to select a date when

a slot is open for the particular proceeding. The actual con-

tinuance date selected is entered into CSS using a continuance/

disposition screen.

10. Trial and Disposition--The outcome of the trial is

recorded in the courtroom on a "Circuit Court Work Schedule

Sheet" (Figure 9). A copy goes to the scheduling office at

the end of the day, where the disposition is entered into

CSS, using a disposition transaction.

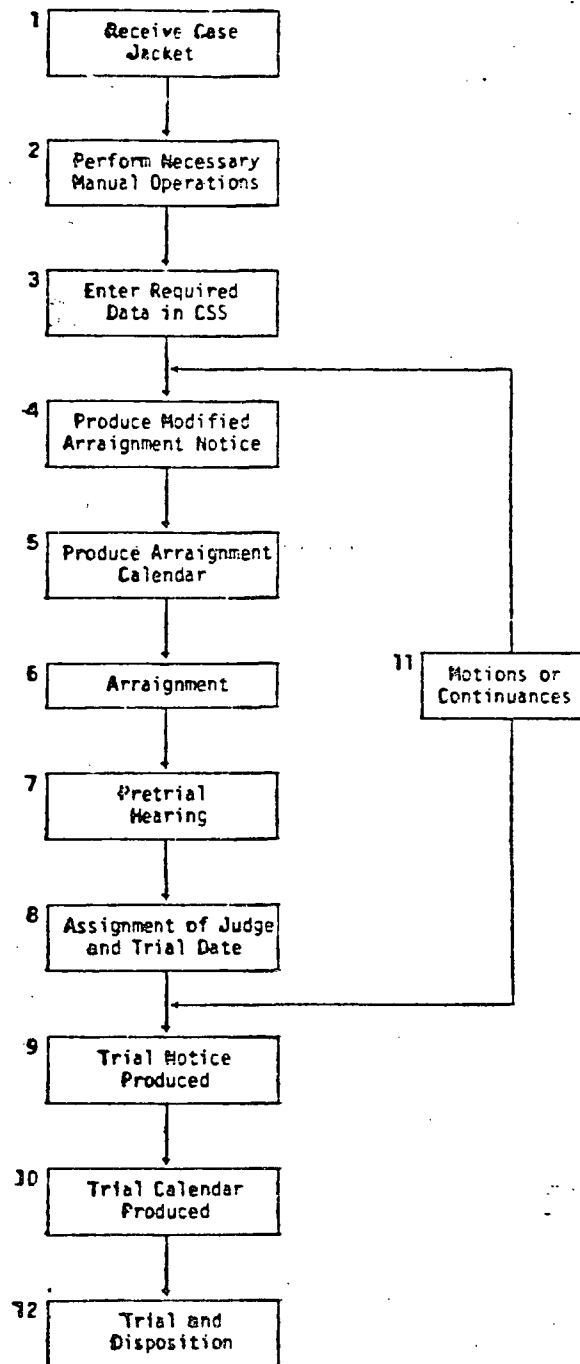C. Proposed Criminal Case Flow Using CSS

Figure 10 illustrates the way criminal cases could be

processed if the CSS system is adopted. Each block on the

flowchart has a number that is cross-referenced to a narra-

tive description in the following paragraphs.

1. Receive Case Jacket--The criminal case processing

clerk receives the case jacket from the county clerk's office

with the case number preassigned.

FIGURE 10

Proposed Flow of Criminal Cases in Jurisdictions Using CSS

```
1  ┌─────────────────┐
   │  Receive Case   │
   │     Jacket      │
   └────────┬────────┘
            │
2  ┌────────▼────────┐
   │ Perform Necessary│
   │ Manual Operations│
   └────────┬────────┘
            │
3  ┌────────▼────────┐
   │ Enter Required  │
   │  Data in CSS    │
   └────────┬────────┘
            │
4  ┌────────▼────────┐
   │ Produce Modified│
   │Arraignment Notice│
   └────────┬────────┘
            │
5  ┌────────▼────────┐
   │Produce Arraignment│
   │    Calendar     │
   └────────┬────────┘
            │                    11 ┌──────────────┐
6  ┌────────▼────────┐              │  Motions or  │
   │   Arraignment   │              │ Continuances │
   └────────┬────────┘              └──────────────┘
            │
7  ┌────────▼────────┐
   │    Pretrial     │
   │     Hearing     │
   └────────┬────────┘
            │
8  ┌────────▼────────┐
   │Assignment of Judge│
   │  and Trial Date │
   └────────┬────────┘
            │
9  ┌────────▼────────┐
   │   Trial Notice  │
   │    Produced     │
   └────────┬────────┘
            │
10 ┌────────▼────────┐
   │  Trial Calendar │
   │    Produced     │
   └────────┬────────┘
            │
12 ┌────────▼────────┐
   │    Trial and    │
   │   Disposition   │
   └─────────────────┘
```

2. Perform Necessary Manual Operations--This includes ensuring that the arraignment notice is in the jacket, entering the arraignment date on the outside of the jacket; ensuring that the arraignment has been scheduled for the proper court, and extracting a Request for Transcript of Preliminary Exam, if applicable.

3. Enter Required Data in CSS--The criminal case processing clerk would call up a screen that would show the defendant's name and case number. The following data would then be entered or updated if not already included in the case-tracking system:

- Lead charge
- Local police department number
- Court of original jurisdiction
- Arraignment date set by lower court
- Release status
- Bond amount
- Confinement facility
- Arraignment court
- Bondsman (name, address, phone)

4. Produce Modified Arraignment Notice--In the event that the arraignment proceedings are continued, a "Notice to Appear for Court Action" (Figure 7) will be generated by CSS and sent to the defendant, defense counsel, and bondsman, if applicable.

5. Produce Arraignment Calendar--A calendar of cases scheduled for a given day will be generated by CSS in the same format as Figure 4. This calendar not only serves as a listing of cases, but also as a source document for updating the CSS on the outcome of the arraignment and pretrial hearing. Copies of the arraignment list are sent to the prosecutor, chief judge, and court.

6. Arraignment--The outcome of the arraignment is recorded on the arraignment calendar produced by the automated system. An annotated copy of the calendar will be used to update CSS at the end of the day by entering a continuance transaction through the on-line terminal.

7. Pretrial Hearing--A copy of the arraignment calendar is also furnished to the pretrial hearing prosecutor. The calendar is annotated to reflect any pleas entered before the Chief Judge. If a plea is entered, a continuation for sentencing transaction is entered on-line into CSS.

8. Assignment of Judge and Trial Date--The date of trial is selected automatically following arraignment if the case was not disposed of. If the defendant is in custody, the trial date is set for three weeks following arraignment. If the defendant is not in custody, trial is set for between six and twelve weeks following arraignment. Seven judges are available and are assigned on a rotating basis to hear criminal trials. Eight trials are scheduled for each day. Each case is automatically assigned to a judge at random.

9. _Trial Notice Produced_--A "Notice to Appear for Court Action" (Figure 7) will be generated by CSS as soon as the trial date is set. The notice is sent to the prosecutor, defendant, and defense counsel. The notice instructs these trial parties when and where to appear for trial.

10. _Trial Calendar Produced_--A trial calendar similar to the format shown in Figure 4 is produced one day in advance of the trial date. Copies are sent to the prosecutor and presiding judge as well as to each courtroom.

11. _Motions or Continuances_--Motions are scheduled by the attorney on certain days of the week set by the scheduling office. A judge will be allotted a certain number of slots for long and short motions. In the event a continuance is necessary, it is up to the scheduler to select a date on which there are no conflicts for the attorneys in the case. This is accomplished by referring to the on-line Case Participants Schedule (Figure 2), described in section II.B of this document. It will also be necessary to refer to the Calendar Status Monitor (Figure 3), described in section II.C to select a date when a slot is open for the particular proceeding. The actual continuance date selected is entered into CSS using a continuance/disposition screen.
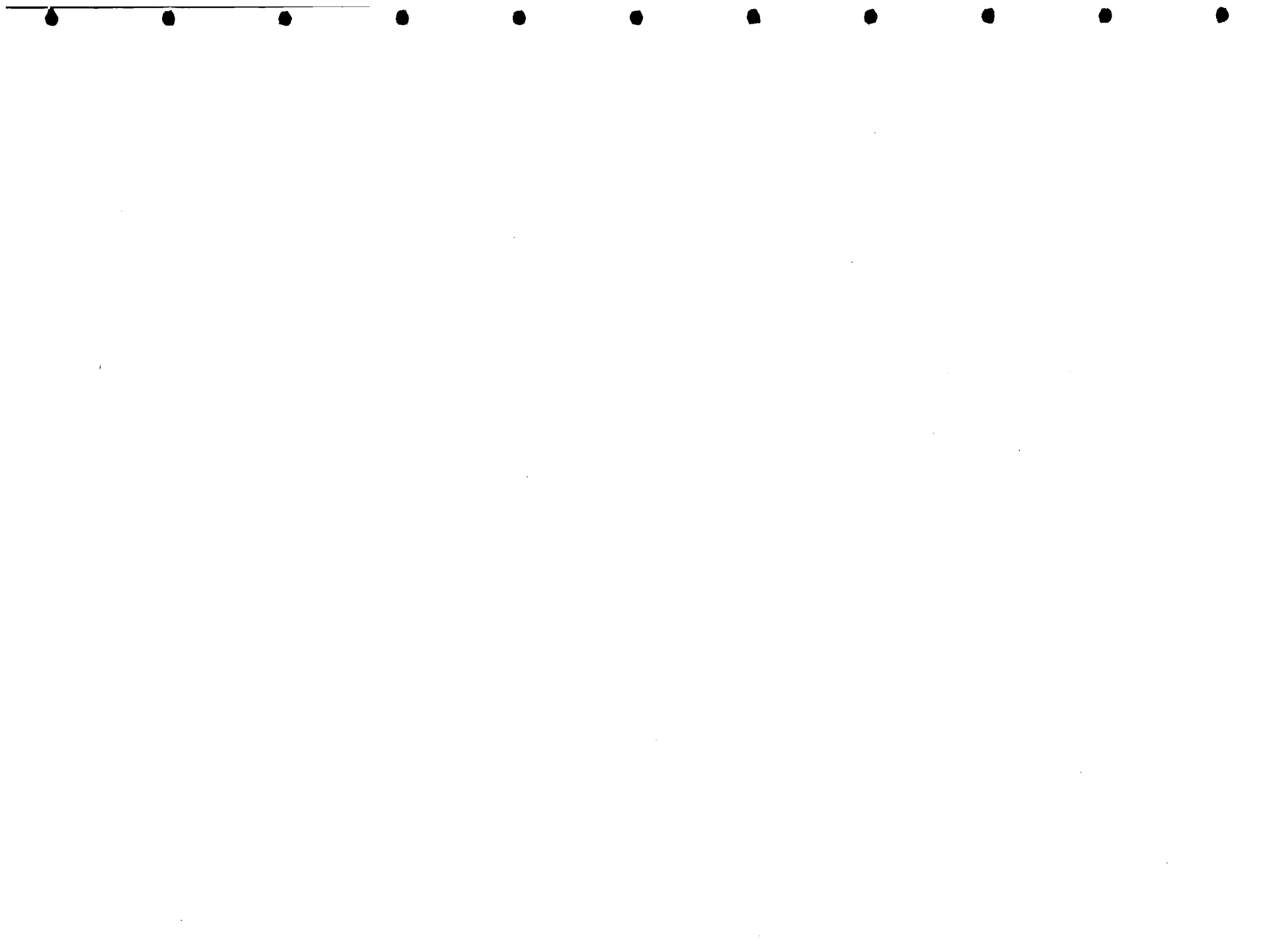
12. _Trial and Disposition_--When the trial is held, the continuance to the next court day disposition is recorded on the "Circuit Court Work Schedule Sheet" (Figure 9), which is filled out by a clerk in each courtroom. A copy of this sheet

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is brought to the scheduling office, where it serves as a
as a source document for updating CSS through on-line trans-
actions. Transactions are recorded on CSS immediately in the
evening after working hours to ensure time input of data.

APPENDIX A
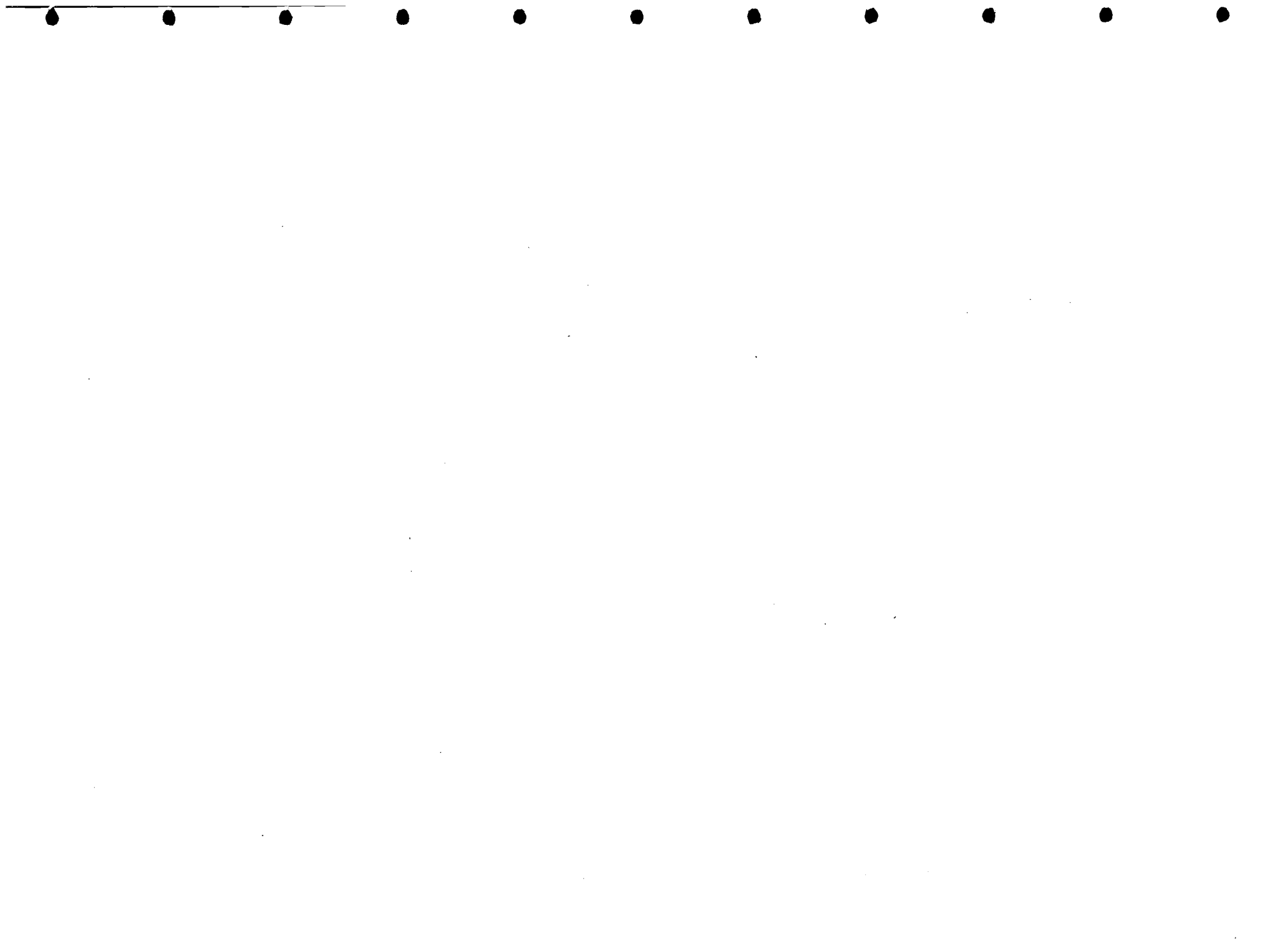
SCHEDULING ELIGIBILITY CRITERIA BY STAGE

STAGE	CRITERIA	NUMBER
Divorce Cases		
1. Awaiting FOC Action	Any divorce case which involves children that is over 6 months since filing or 60 days since filing if no children are involved.	Varies. Estimated at 235 new cases/week.
2. Awaiting Trial	Contested Divorce Cases - As soon as a case has been cleared, it is placed into this stage and is eligible for settlement conference and trial.	75/week. Set for trial six weeks after FOC clearance.
	Uncontested Divorce Cases - Same as contested divorces.	160/week. Set for trial six weeks after FOC clearance.
Civil Cases		
3. Awaiting Pretrial Conference	As soon as the civil case is extracted from the CTS, it is placed into this category.	75/week. All on Tuesdays at rate of 3/judge. Set for Pretrial Conference 8 weeks after initial entry onto CSS.
4. In Mediation	If a case is ordered into mediation by the court or at the stipulation of both parties, CSS must be notified through a continuance transaction.	Varies.
5. Awaiting Settlement Conference and Trial	A case enters this stage upon completion of the pretrial conference or mediation if there has been no settlement.	30 cases/day. Cases set five weeks after pretrial conference.
Criminal Cases		
6. Awaiting Arraignment and Pretrial Hearing	Criminal cases are placed into this stage upon initial entry into CSS.	Varies.
7. Awaiting Trial	Cases enter this stage after completion of the arraignment and pretrial hearing if there has been no plea.	8 cases/day. Cases scheduled for trial 3 weeks after arraignment if defendant in custody and 6-12 weeks after arraignment if defendant on bond.

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APPENDIX A (Concluded)

STAGE	CRITERIA	NUMBER
8. Awaiting Sentence	Cases enter this stage upon completion of the trial and a verdict of guilty has been returned.	8 cases/day.
General		
9. Motions (includes criminal post-conviction hearings)	Cases are placed into a short or long motion slot on the basis of a request by an attorney. The request is manually entered into CSS using the on-line terminal.	3 short and 1 long/judge (30 judges/day).

APPENDIX B

USER ENHANCEMENTS

The standard CSS software package is designed to handle all of the basic scheduling operations found in most civil and criminal courts. However, there are additional applications that the system can be programmed to perform to eliminate time consuming clerical activities related to tracking the status of a case or party to a case. The system may also be modified to produce additional notices for an activity related to case scheduling. These software enhancements to the CSS have to be added by users locally on an "as needed" basis. Examples of two such user enhancements may be found in the following paragraphs.
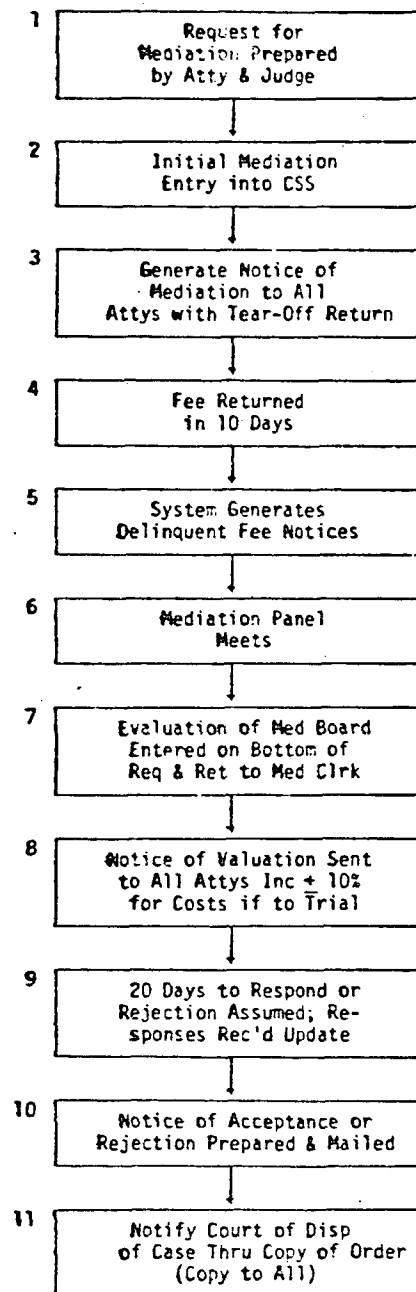
A. Using CSS to Track Cases Placed into Mediation

Some jurisdictions provide that any civil case other than divorce or paternity cases may be placed into mediation upon the stipulation of attorneys in the case or by order of the court. The flowchart in Figure 11 is an example of how one jurisdiction might process a mediated case using CSS. Each action on the chart has a number that is cross-referenced to a detailed narrative description of the activity below:

1. The Request for Mediation is prepared by the attorneys or judge in the case.

2. Data relating to the mediation is entered into CSS, including the date and time set, mediators' names and courtroom numbers.

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FIGURE 11

Proposed System (Mediated Cases)

1. Request for Mediation Prepared by Atty & Judge
2. Initial Mediation Entry into CSS
3. Generate Notice of Mediation to All Attys with Tear-Off Return
4. Fee Returned in 10 Days
5. System Generates Delinquent Fee Notices
6. Mediation Panel Meets
7. Evaluation of Med Board Entered on Bottom of Req & Ret to Med Clrk
8. Notice of Valuation Sent to All Attys Inc + 10% for Costs if to Trial
9. 20 Days to Respond or Rejection Assumed; Responses Rec'd Update
10. Notice of Acceptance or Rejection Prepared & Mailed
11. Notify Court of Disp of Case Thru Copy of Order (Copy to All)

3. The system automatically generates a Notice of Mediation to all attorneys, with instructions for paying appropriate mediation fees and the date set for mediation. An attorney may challenge any member of the mediation panel, in which case the mediation clerk will reschedule the case for another panel. If this is the case, this information must be entered into CSS. A copy of the notice will be returned to the mediation clerk with the payment of fees so that the payment may be recorded and credited.

4. The fee must be returned within 10 days.

5. The system automatically generates delinquent fee notices to attorneys who have not paid within 10 days.

6. The mediation panel is held.

7. The mediation panel assigns a valuation to the settlement, which is entered manually on the bottom of the Request for Mediation form. The form is then returned to the mediation clerk and the evaluation is entered into the system.

8. The system will then automatically generate a Notice of Valuation to each attorney in the case, indicating the mediation panel's finding. The notice advises that if the plaintiff rejects the board's evaluation, a jury verdict of more than the amount of the valuation plus 10 percent must be obtained or costs will be taxed against the plaintiff. It also advises the defendant that if he rejects the board's evaluation, a jury verdict of less than the amount of the
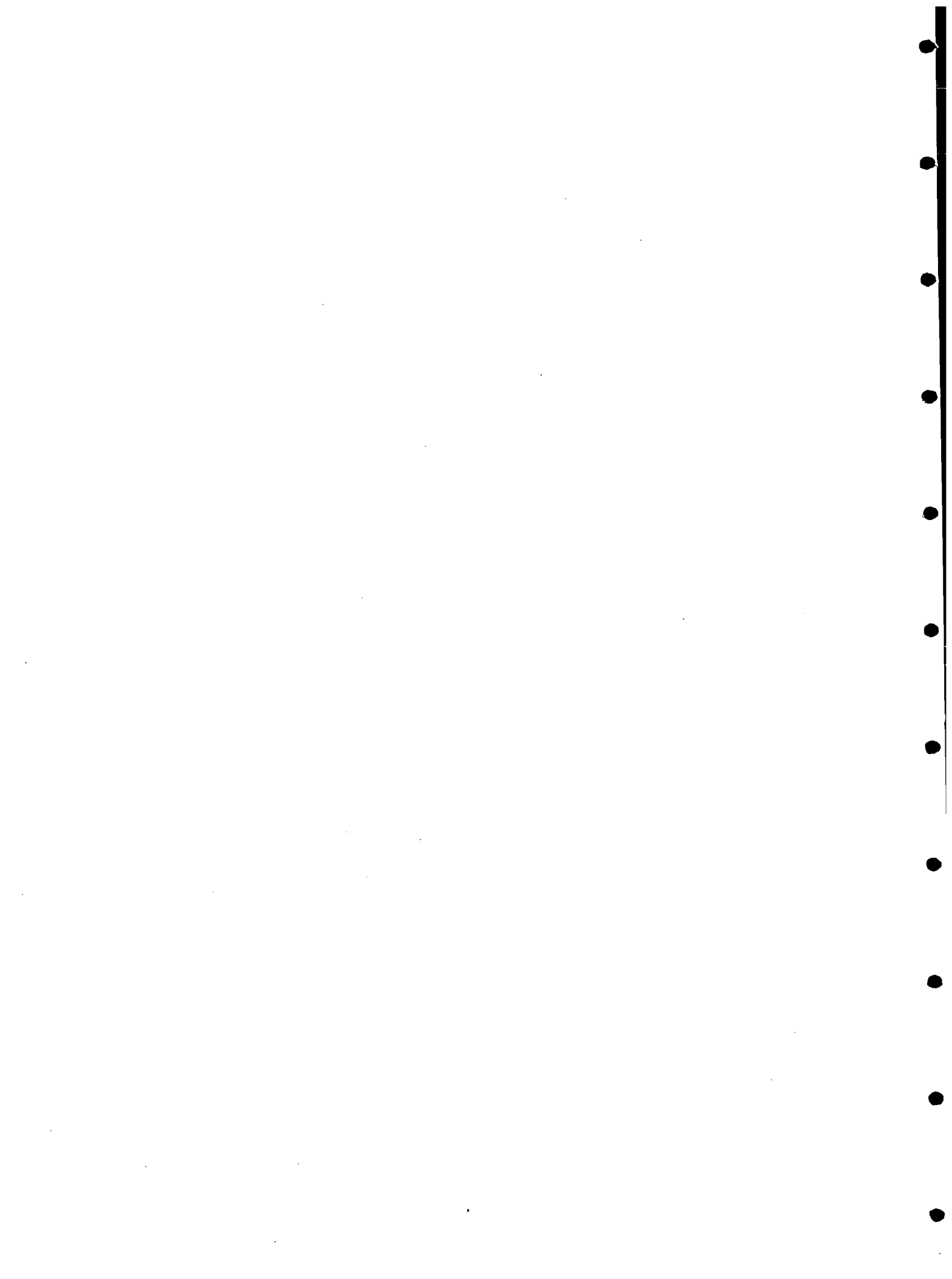
evaluation minus 10 percent must be obtained or costs will be taxed against the defendant.

9. The attorneys have 20 days to respond accepting or rejecting the mediation. The acceptances or rejections are entered into the system. If no response is received in 20 days, it will be assumed that the evaluation was rejected.
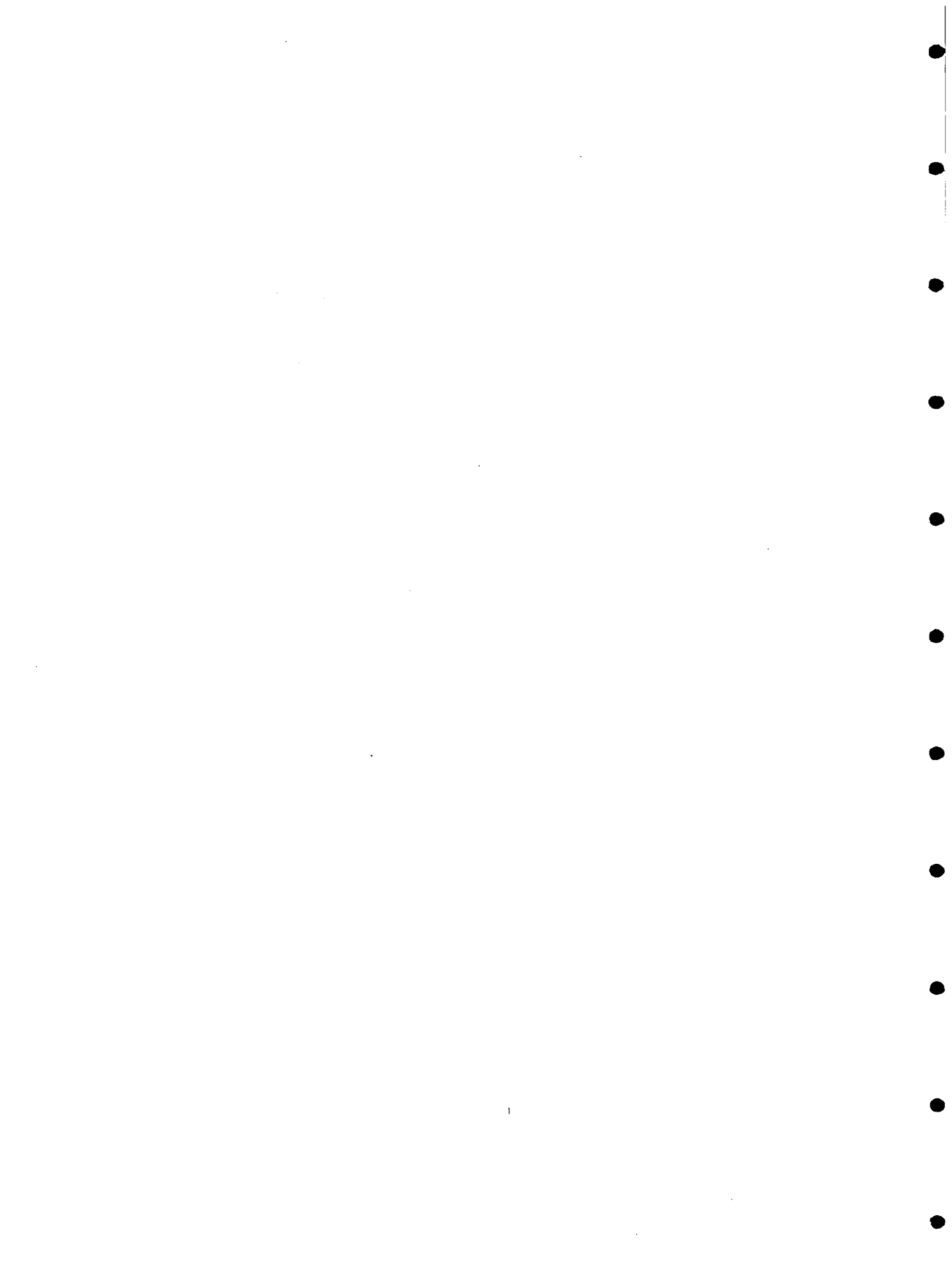
10. The system will automatically produce Acceptance/Rejection Notices to all attorneys advising them of each attorney's acceptance or rejection of the board's evaluation.

11. If all attorneys accept the evaluation and the case is settled, a mediation clerk is notified and the case is closed out without further scheduling office action. However, the clerk of the court needs an order to officially close the case.

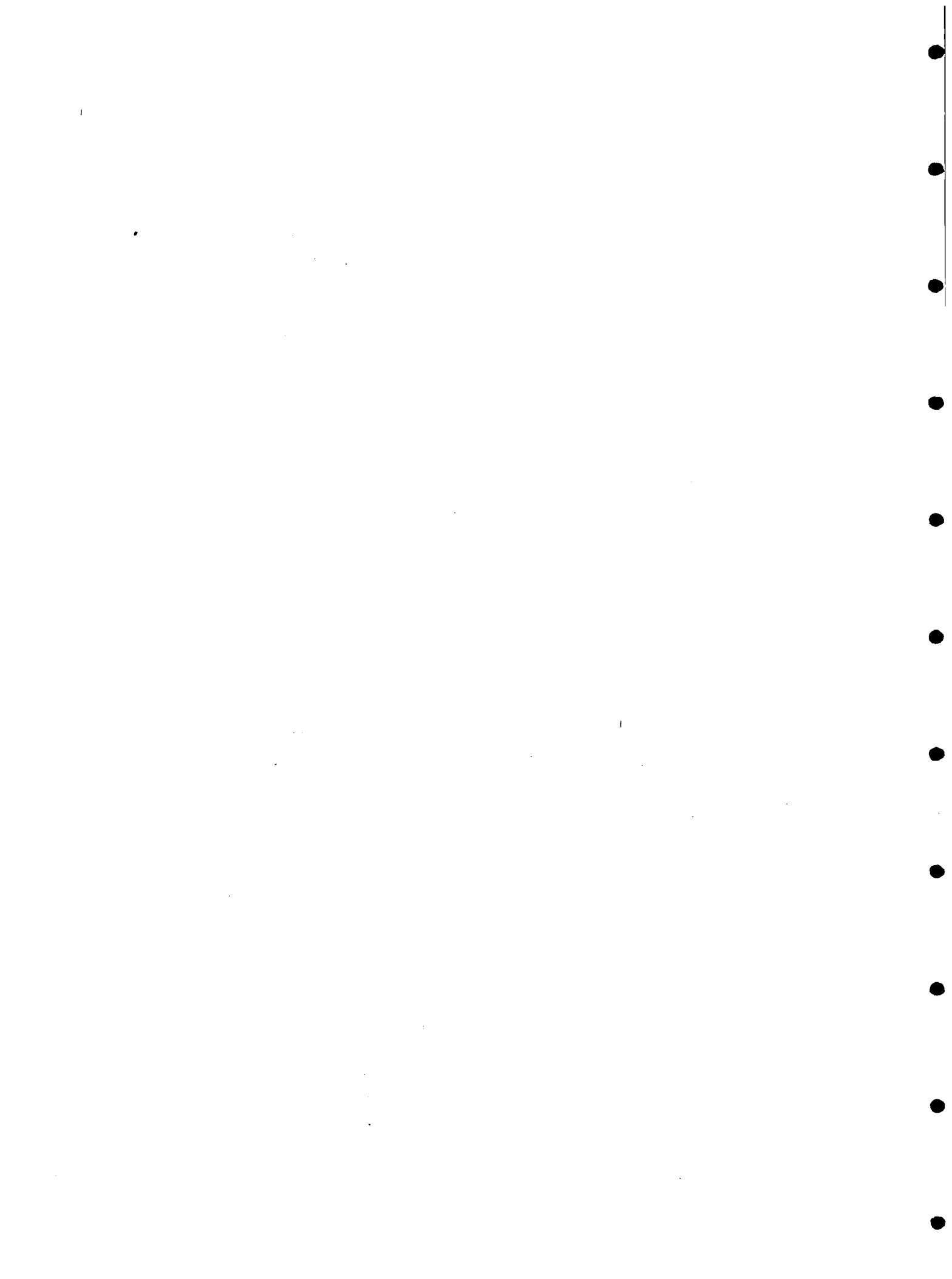B. Using CSS to Track the Release Status of Criminal Defendants

The scheduling offices in some jurisdictions are confronted with the problem of knowing whether or not a defendant is in custody or on some type of release. This information becomes important at the time of each court proceeding because the defendant must be present in court. If he is in jail, the confinement facility must be notified with enough notice so that they will be able to bring the defendant to the courtroom.

In order to solve this problem, CSS can be programmed to tie into a case-tracking system, or independently fed, so as to be constantly aware of the defendant's jail status and to

know in which facility he is being held. Knowing this infor-
mation, the scheduling office could, through CSS, produce a
listing of defendants to be brought up before the court each
day. The listing could be broken down by each confinement
facility so that officers could tell at a glance which pris-
oners had to be transported to court on a particular day.
This type of feature would save countless hours of clerical
time presently being spent on the telephone with local lockup
trying to locate a defendant or to determine his jail status.

SCHEDULING ELIGIBILITY CRITERIA BY STAGE

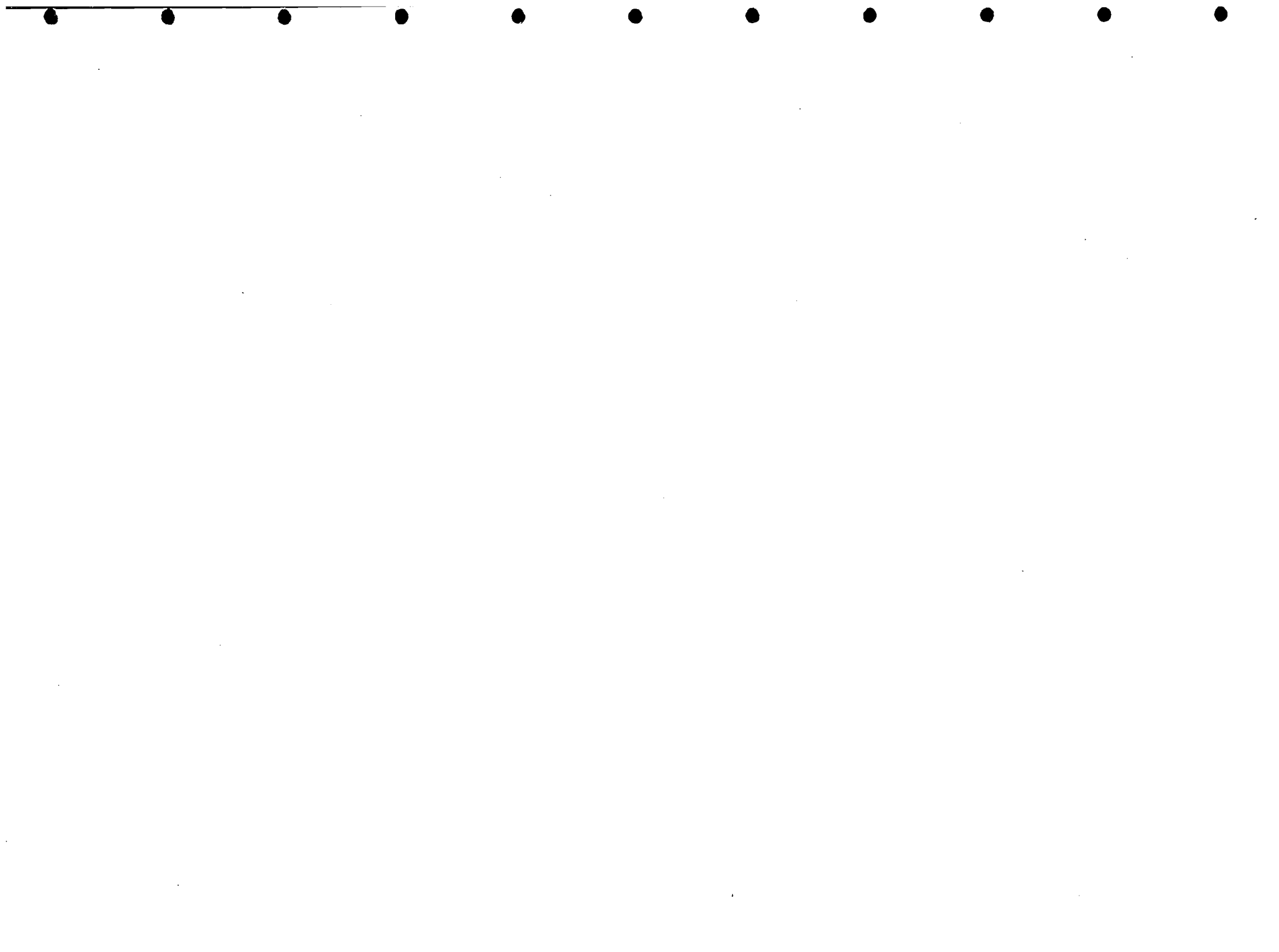| STAGE	CRITERIA	NUMBER
Divorce Cases		
1. Awaiting FOC Action	Any divorce case which involves children that is over 6 months since filing or 60 days since filing if no children are involved.	Varies. Estimated at 235 new cases/week.
2. Awaiting Trial	Contested Divorce Cases - As soon as a case has been cleared, it is placed into this stage and is eligible for settlement conference and trial.	75/week. Set for trial six weeks after FOC clearance.
	Uncontested Divorce Cases - Same as contested divorces.	160/week. Set for trial six weeks after FOC clearance.
Civil Cases		
3. Awaiting Pretrial Conference	As soon as the civil case is extracted from the CTS, it is placed into this category.	75/week. All on Tuesdays at rate of 3/judge. Set for Pretrial Conference 8 weeks after initial entry onto CSS.
4. In Mediation	If a case is ordered into mediation by the court or at the stipulation of both parties, CSS must be notified through a continuance transaction.	Varies.
5. Awaiting Settlement Conference and Trial	A case enters this stage upon completion of the pretrial conference or mediation if there has been no settlement.	30 cases/day. Cases set five weeks after pretrial conference.
Criminal Cases		
6. Awaiting Arraignment and Pretrial Hearing	Criminal cases are placed into this stage upon initial entry into CSS.	Varies.
7. Awaiting Trial	Cases enter this stage after completion of the arraignment and pretrial hearing if there has been no plea.	8 cases/day. Cases scheduled for trial 3 weeks after arraignment if defendant in custody and 6-12 weeks after arraignment if defendant on bond.

| STAGE	CRITERIA	NUMBER
8. Awaiting Sentence	Cases enter this stage upon completion of the trial and a verdict of guilty has been returned.	8 cases/day.
General		
9. Motions (includes criminal post-conviction hearings)	Cases are placed into a short or long motion slot on the basis of a request by an attorney. The request is manually entered into CSS using the on-line terminal.	3 short and 1 long/judge (30 judges/day).

ATTACHMENT G

WORK PLAN FOR
HENNEPIN COUNTY MUNICIPAL COURT
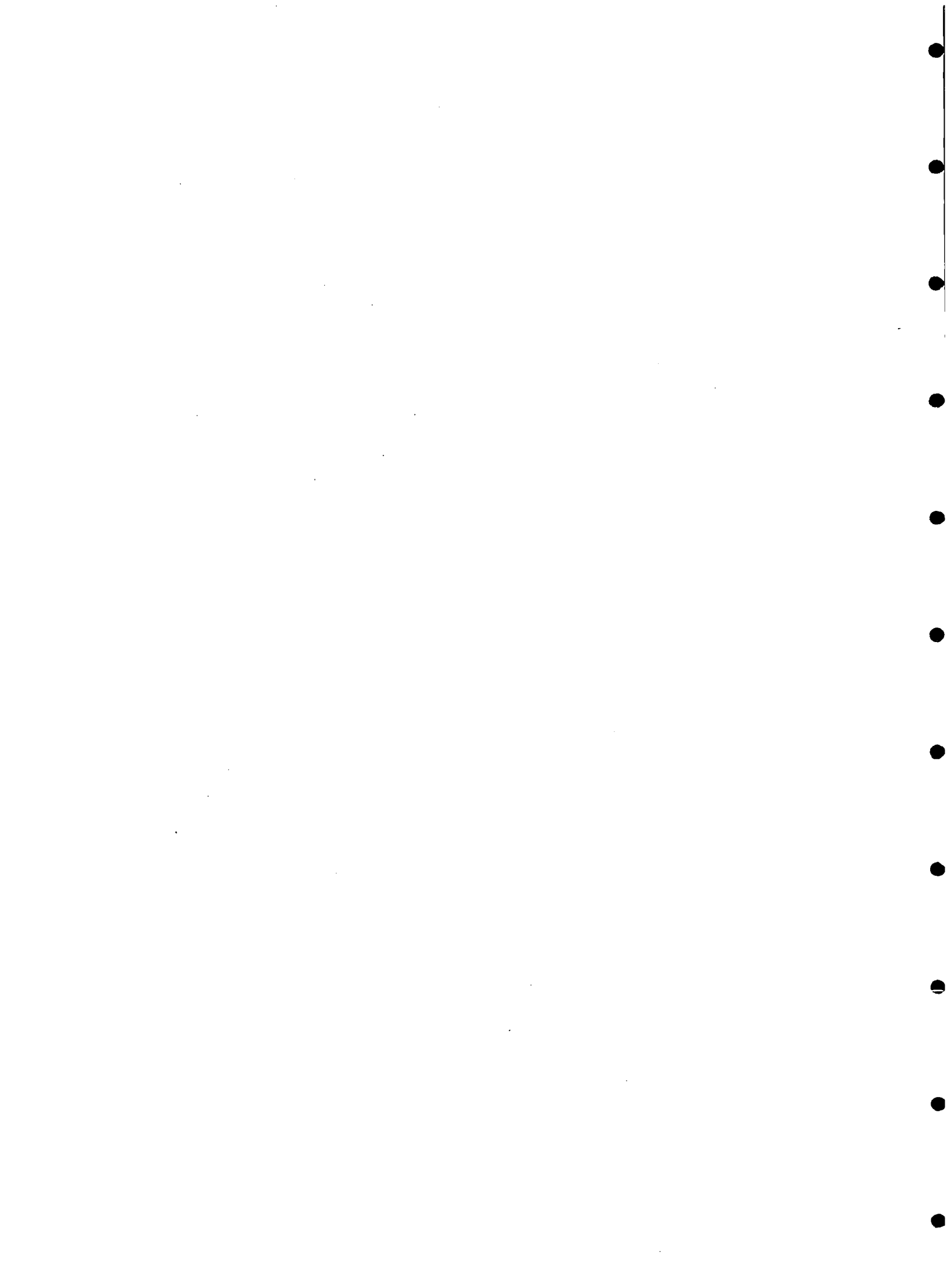
WORK PLAN FOR HENNEPIN COUNTY MUNICIPAL COURT

Purpose

The purpose of this work plan is to initiate participation of the Hennepin County Municipal Court (hereafter referred to as "the court") as a pilot site for Phase II of the Institute for Law and Social Research's (INSLAW) court scheduling project.

The work plan outlines the tasks to be undertaken, the resources to be applied to those tasks, both by INSLAW and by the court. However, discussion and negotiation are encouraged to arrive at a mutually agreeable and realistic set of products.

The products must be beneficial to the court in scheduling its cases but must also be transferable to other courts with similar environmental constraints. Transferability of products will be enhanced by thorough documentation and development of generalized software written in ANSI COBOL where possible.

Background

The two tasks listed below are recommended by INSLAW as a result of visits to the court, including observation, some data collection and discussion with court personnel.

The high volume of cases normally associated with a municipal-level court appears to present few calendaring problems in Hennepin County. Control of police officer appearances, however, surfaced as an area worthy of exploration since it interests the court and the police department. The automated case tracking system has a potential wealth of data for research leading to a greater understanding of the productivity of the court and providing information to base resource allocation decisions upon.

Our concept of scheduling is a comprehensive one, embracing the policy setting and resource management functions normally associated with case flow management. The three components which comprise a court scheduling system, the management component, calendaring component, and data support component are described in the Phase I Guide to Court Scheduling, 1. A Framework for Criminal and Civil Courts.

The tasks herein recommended are:

1. Incorporate Police Officer Duty Assignments Into Trial Scheduling.
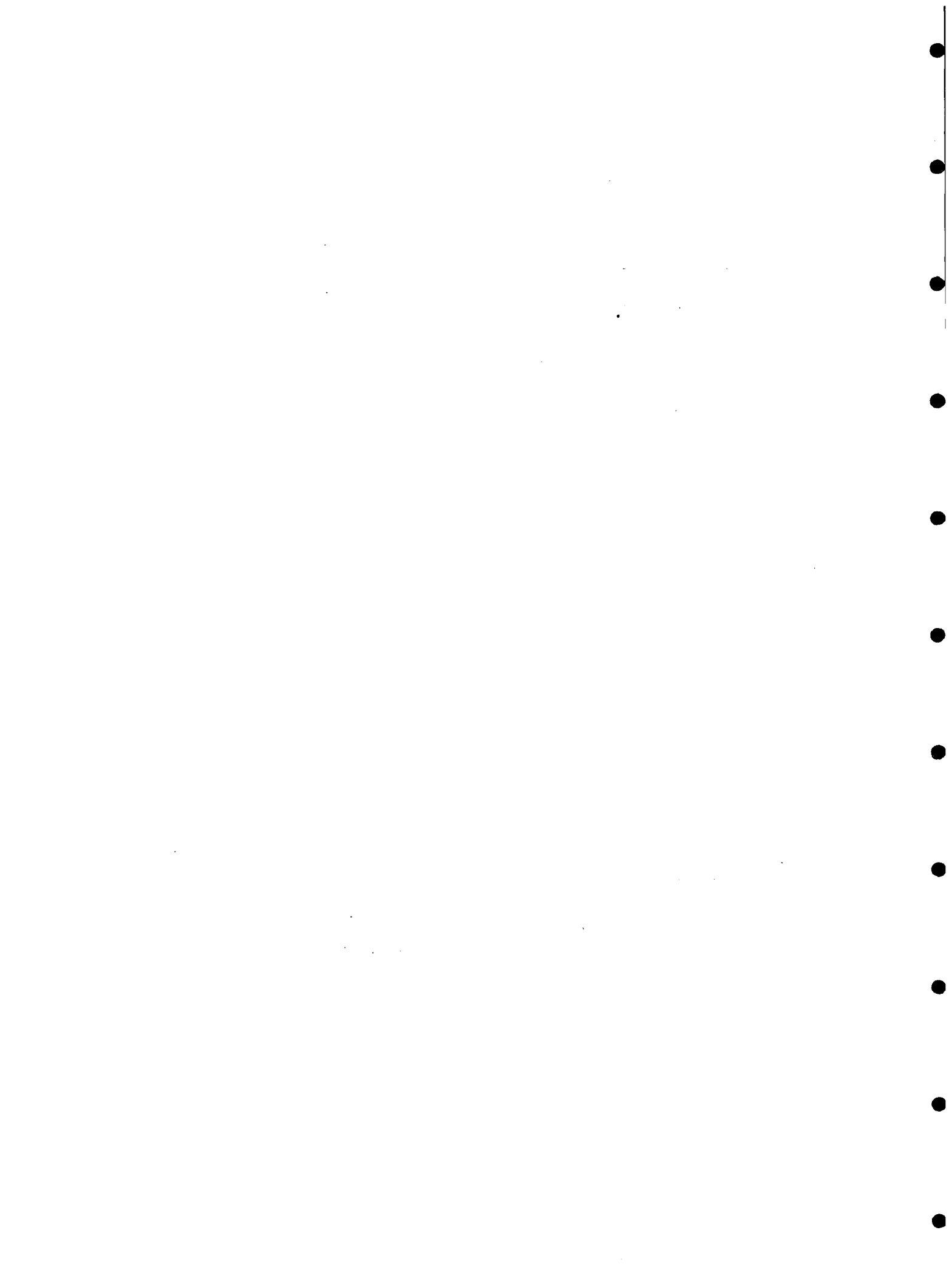
2. Develop a Method for the Allocation of Judicial Resources.

These tasks are not independent and the results of the Task 2 development of a resource allocation model may affect judge and case assignments policy which in turn will impact police officer scheduling. The Tasks, their rationale, and the steps involved are described in greater detail below.

Task 1 - Incorporate Police Officer Duty Assignments Into Trial Scheduling.

The objective of this task is to improve the scheduling of court and jury trials by minimizing unnecessary continuances attributable to officers and police officer overtime for trial appearances.

Presently, police officer duty schedules are not consulted in setting either jury or court trial dates, although the schedules of the prosecution and defense, as well as the court's work load, are considered in date selection.

Court statistics for October, 1976 show that thirty-eight continuances were requested by police officers that month. Although this is less than five percent of all the continuances requested for that period, it accounts for twenty percent of all trial continuances.

The Police Department reports that for the first ten months of 1976, officers had totaled 55,000 man-hours of overtime, much of it attributable to court appearances. The Department also expressed a desire to work with the court and City Attorney to reduce officer overtime and inconvenience through improved scheduling techniques.

Police Department cooperation will be necessary to make officer duty and vacation schedules available two to three months in advance, rather than the present one month ahead. Court and City Attorney cooperation will be required to use officer scheduling information in setting trial dates and in considering alternative on-call and other arrangements. Programming assistance may be required if the most efficient approach to officer schedule maintenance is determined to be via the court's existing computer system.

This requirement for close cooperation and coordination recommends the establishment of an advisory committee representing the police, City Attorney, court and possibly data processing to review alternatives and commit their respective agencies.

The specific steps leading to the development and implementation of a police officer scheduling subsystem are:
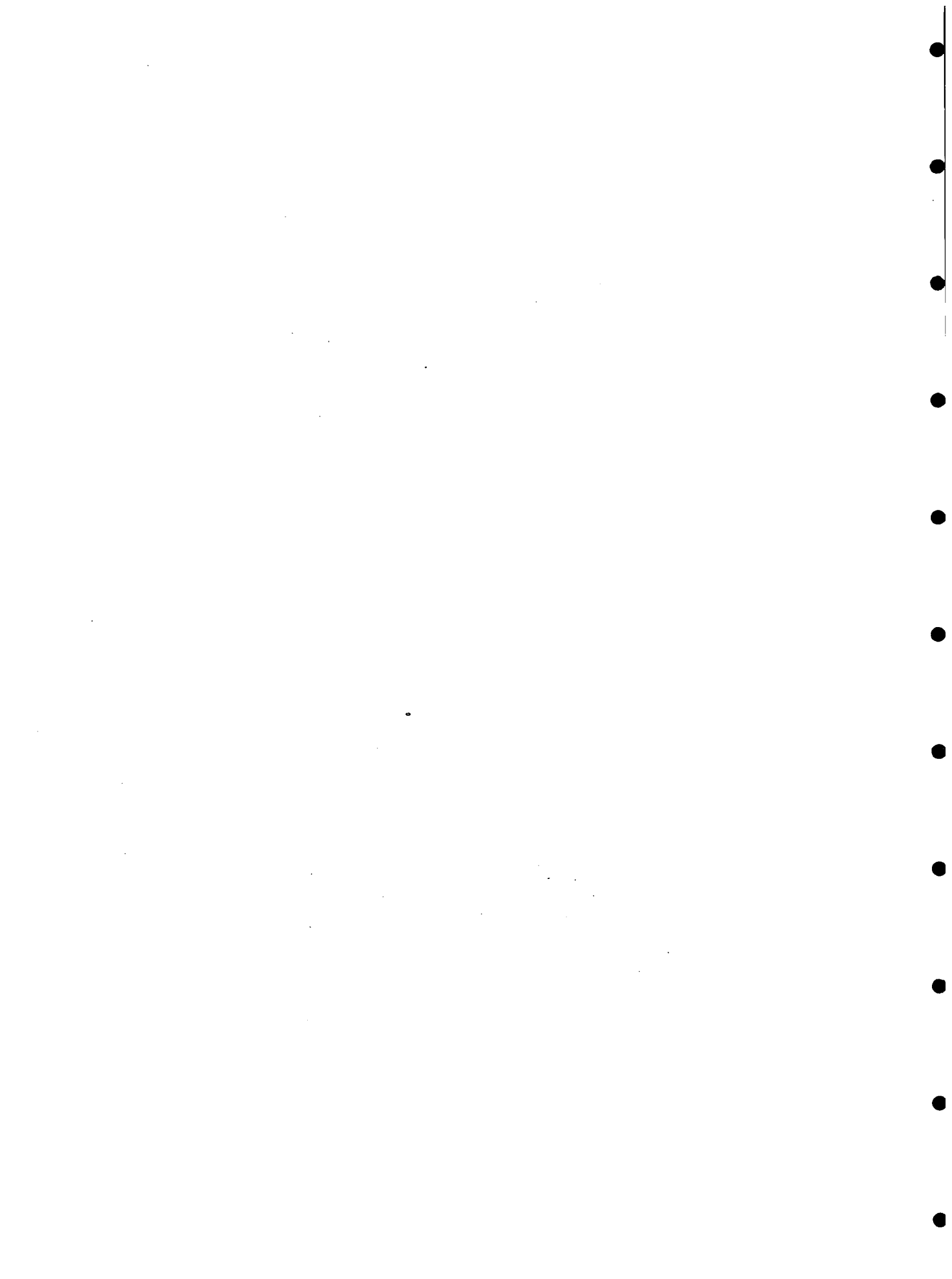
Step A - Assess the Impact of Existing Operations on the
Performance of the Involved Agencies. The purpose of this
step is to collect and analyze information on the social and
economic consequences of case scheduling as it is presently
being performed. The costs of continuances to the court,
overtime to the Police Department, and inconvenience to the
officer will be collected and quantified in so far as is
possible. The results of this step will form the justifi-
cation for developing a new system and procedures and will
be the basis for any subsequent cost and benefit analysis.

Step B - Examine Alternative Methods for Improving Police
Officer Scheduling. A range of alternative methods for
incorporating officer scheduling information into the sched-
uling process exists. These range from simple manual proc-
essing to more sophisticated computerized processing with
associated advantages and costs. Our examination will in-
clude:

. assignment of court days to officers;

. use of form filled out by arresting officer similar to
  Attachment 1, and placed in case folder for subsequent
  reference;

. use of an on-call system;

. grouping of court trial cases for active officers;

. officer schedules transmitted to assignment office for
  manual reference; and

. automated police officer schedules.

The more effective methods will be explored with the members
of the advisory committee.

Step C - Develop Alternative Designs and Present Them to
the Advisory Committee. Based upon the examination of
alternatives in the preceding step, two or more will be
selected and complete designs developed. The designs will
include sources and uses of information, responsibilities
of each agency, and anticipated results. Problems to be
addressed in this step will also include city-county dif-
ferences and developmental and operational cost estimates.

The advisory committee will be asked to select an alterna-
tive and commit their respective agencies to the proposed
roles.

G-3
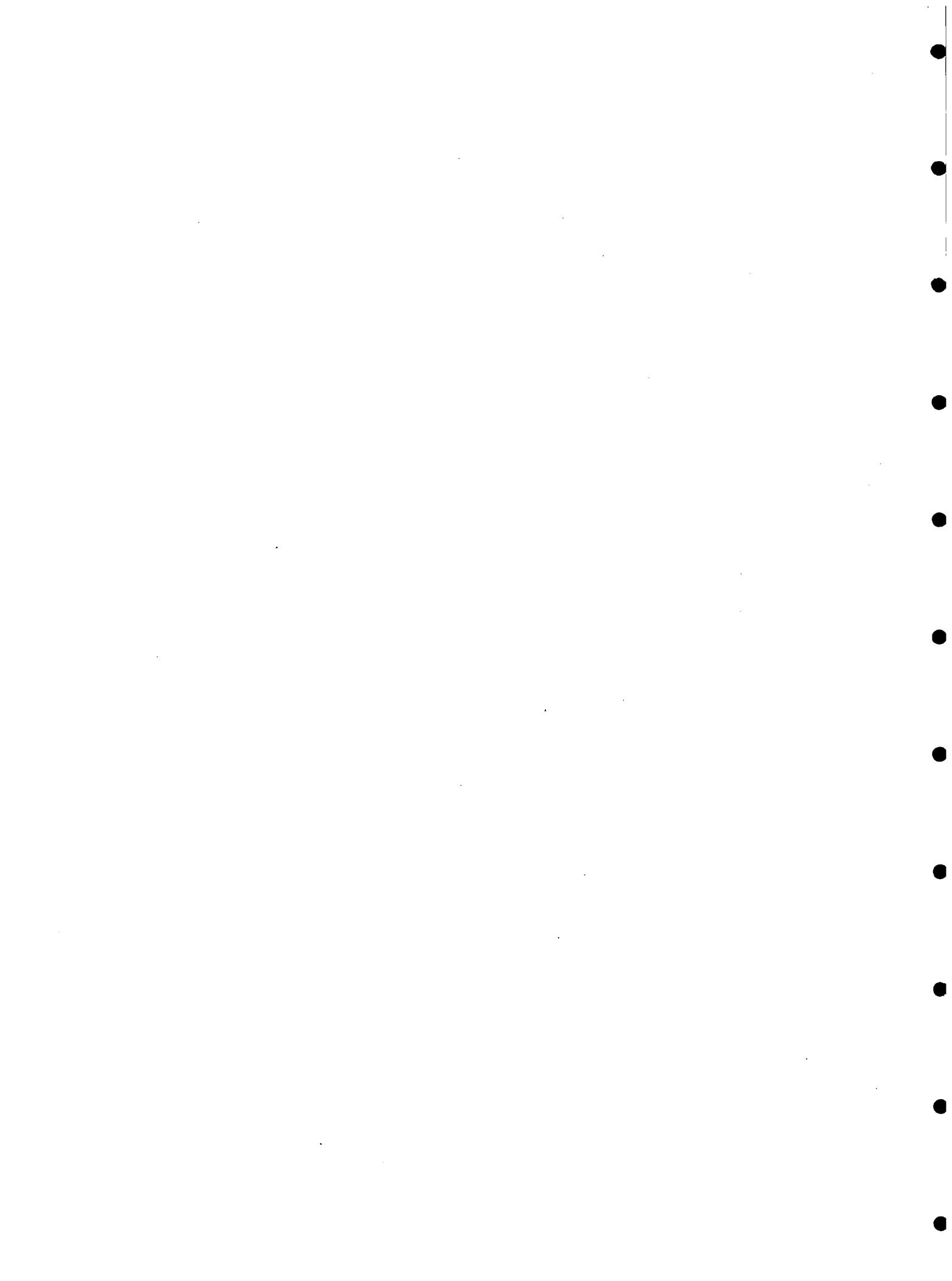
Step D - Develop Forms, Procedures and any Necessary Software Specifications. The selected design will be carried to the detailed stage by development of forms, procedures, and, as required, program specifications. Close coordination with affected agencies will be necessary to insure compliance with existing agency directives. All documentation must also be sufficiently generalized to be transferable to other courts with similar environments.

Step E - Program and Perform Any Necessary Data Entry. The court will be responsible for any necessary data processing support including programming, data entry and hardware procurement.

Step F - Train, Implement and Monitor Operation. Training/orientation of all involved personnel, including judges and other agency officials, will take place immediately prior to implementation to insure familiarity with and support of the project. The project staff and advisory committee will monitor the early operations to make any necessary adjustments and to evaluate results.

Step G - Evaluate Results and Complete Documentation. The purpose behind funding this project is to develop transferable scheduling technologies. Therefore documentation for decision-makers at all levels will be developed and reviewed with agency officials.

Step	Responsible Party		Completion Date
	Court	INSLAW	
A. Assess the impact of existing operations on the performance of the involved agencies.		X	
B. Examine alternative methods for improving police officer scheduling.	X	X	
C. Develop alternative designs and present them to the advisory committee.		X	
D. Develop forms, procedures and any necessary software specifications.	X	X	
E. Program and perform any necessary data entry.	X		
F. Train, implement and monitor operation.	X	X	
G. Evaluate results and complete documentation.		X	

G-4
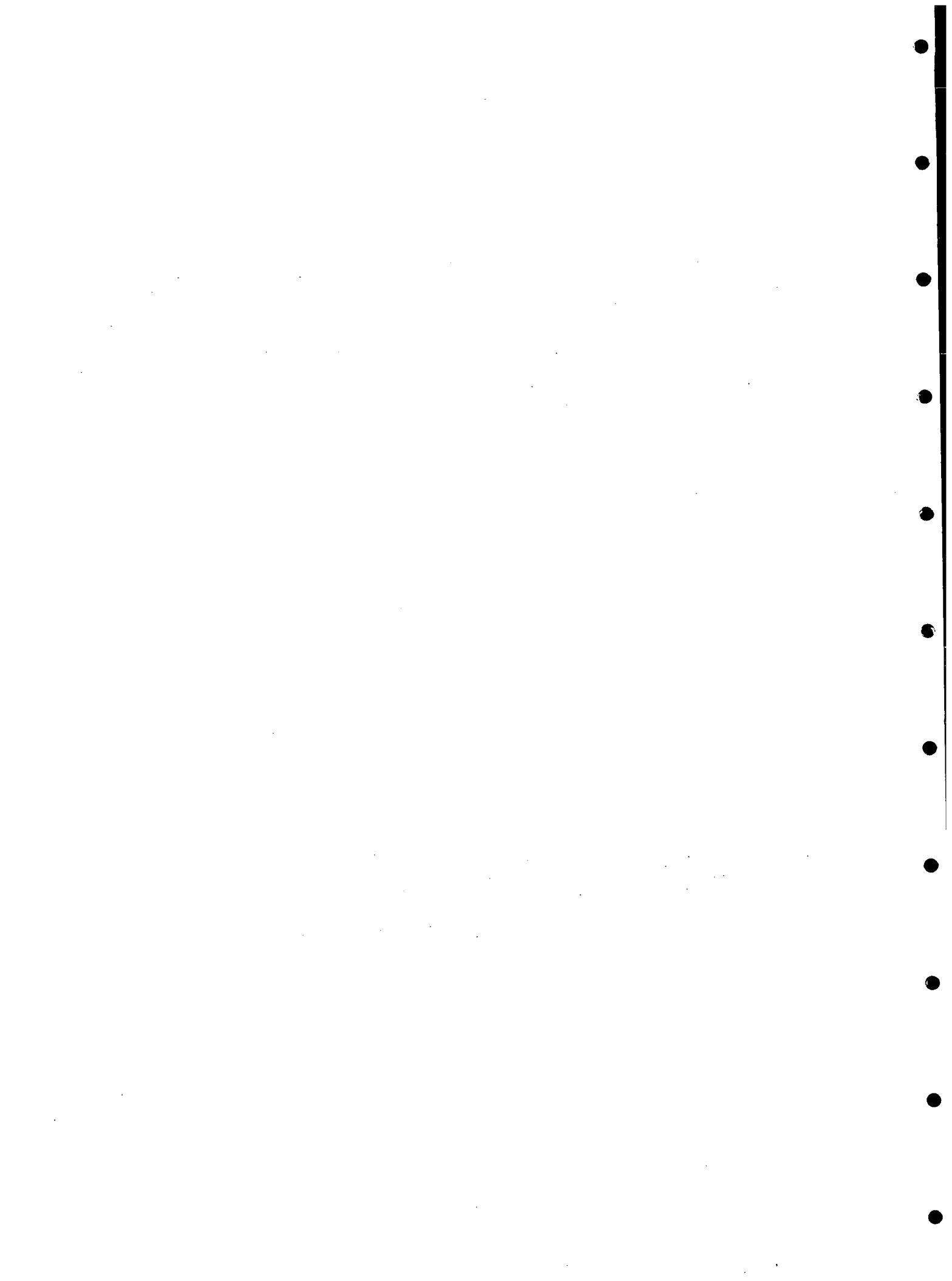
Task 2 - <u>Develop a Method for the Allocation of Judicial Resources</u>.

The objective of this task is to provide a rational method by which judicial resources can be allocated to various functions (e.g., traffic hearings, general assignment pool, etc.). Policy makers in the courts are quite often confronted with the problem of allocating scarce judicial resources in order to satisfy a broad range of objectives. This model is intended as an aid in the examination of objectives in light of the trade-offs that may exist when developing an allocation policy.

An example of an allocation model for alternative court objectives in civil and criminal assignments is attached. The data were taken from a large general jurisdiction court's annual report.

The following steps are necessary to complete this task:

<u>Step A - Identify performance measures</u>. INSLAW will identify those measures of court performance which are appropriate to the allocation decision.

<u>Step B - Specify and design model output</u>. Through discussion with court personnel, INSLAW will translate the performance measures identified in Step A into meaningful outputs which can be readily interpreted by judicial administrators.

<u>Step C - Specify model</u>. INSLAW will specify the form of the model necessary to produce the required outputs.

<u>Step D - Identify input data</u>. INSLAW, working closely with the Court, will identify alternative sources of data necessary to operate the model. Existing data sources will be utilized to the extent possible.

<u>Step E - Test model</u>. INSLAW will test the various assumptions made in the modelling effort and will examine the sensitivity of model results to the input data.

<u>Step F - Document Model</u>. INSLAW will produce documentation which will detail the model assumptions, data requirements, and possible interpretation of the model output.

Step	Responsible Party		Completion Date
	Court	INSLAW	
A. Identify performance measures.		X	
B. Specify output.	X		
C. Specify model.		X	
D. Identify input data.	X		
E. Test model.		X	
F. Document model.		X	

G-5
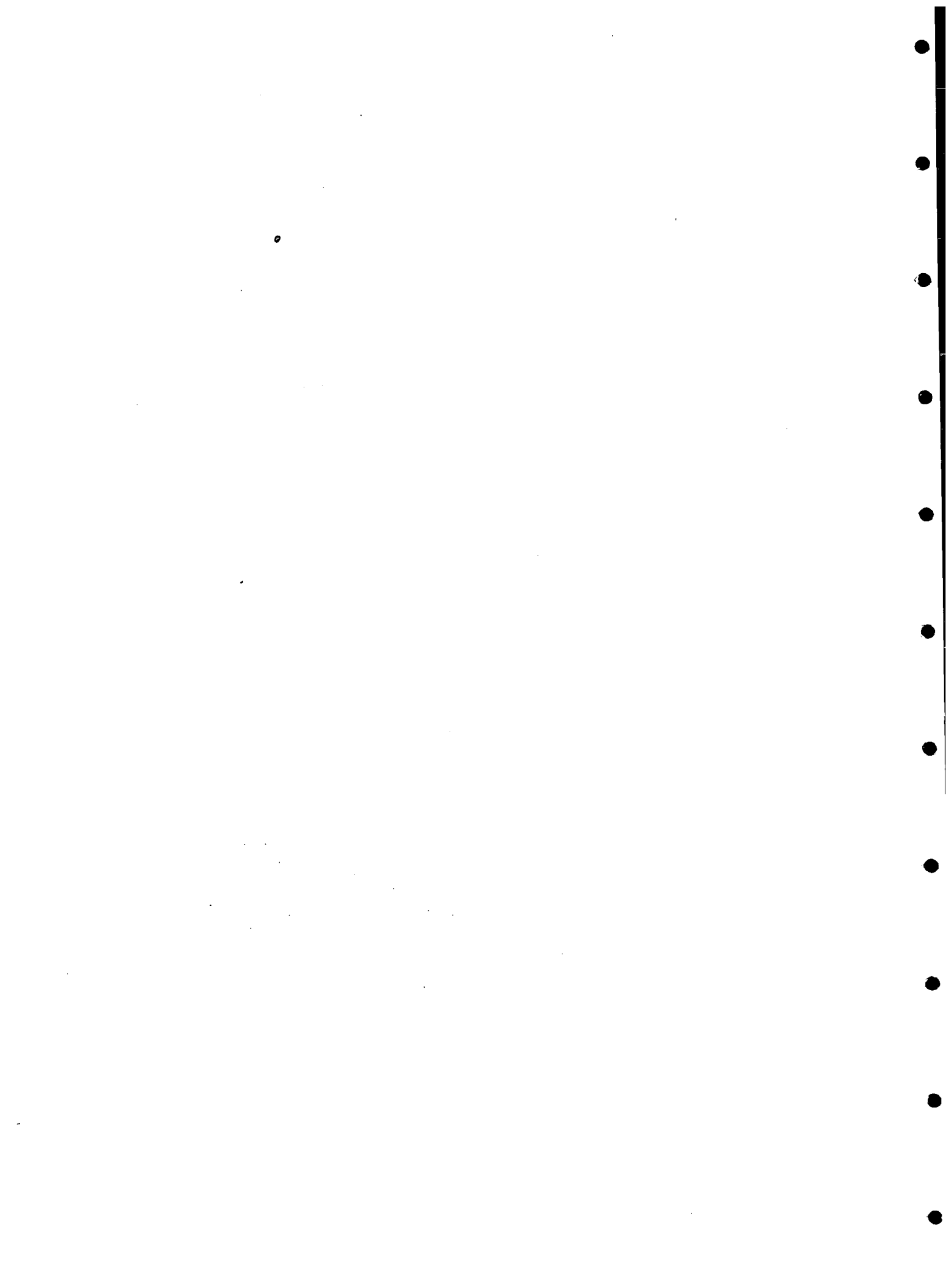
COURT ATTENDANCE RECORD

◀ CLOCK
  IN

CLOCK ▶
OUT

METROPOLITAN POLICE DEPARTMENT
WASHINGTON, D.C.

P.D. 109 Rev. 6/73

COURT ATTENDANCE RECORD

BADGE	(LAST, FIRST, INIT.) - PRINT		ORG. ELEMENT	DATE		DAY OF WK	TIME DUE	☐ COURT ☐ HEARING

| TOUR OF DUTY | DAYS OFF THIS WEEK | WORKING DAY OFF ☐ YES ☐ NO | ☐ ON DUTY ☐ SICK LEAVE | ☐ OFF DUTY ☐ ANNUAL LEAVE | ☐ DAY OFF ☐ OTHER | ATTENDING ☐ SUPERIOR COURT ☐ US DISTRICT COURT |

NAME OF DEFENDANT OR RESPONDENT	CHARGE	DISPOSITION OR CONTINUED TO	DATE OF PRIOR APPEARANCE	APPEARANCE NUMBER	TIME
					IN
SIGNATURE OF OFFICER		BADGE NUMBER	REMARKS		OUT

DO NOT WRITE IN THIS SPACE (FOR USE BY TIME AND ATTENDANCE CLERKS ONLY)

TOTAL TIME ELAPSED		COMPENSATORY COURT TIME		PAID COURT TIME		Initials of T&A Clerk Computing Time
HOURS	MINUTES	HOURS	MINUTES	HOURS	MINUTES	

The above-named officer has lined out on the calendar all dates that he will NOT be available for Court due to:
 1) days off
 2) dates not acceptable to witnesses
 3) times not on day work tour of duty
 4) previously committed court dates
 5) approved annual leave for the next three (3) months

(FOR USE BY PROSECUTING ATTORNEY)

TIME OFFICER ARRIVED AT YOUR OFFICE _____

TIME OFFICER DEPARTED YOUR OFFICE _____

PROSECUTING ATTORNEY'S SIGNATURE _____

▷ **DATES AVAILABLE FOR COURT**

ASSIGNED COURT DAY - circle your court day

M   T   W   Th   F

1975

1976

JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
DECEMBER

JANUARY
FEBRUARY
MARCH
APRIL
MAY
JUNE

Distribution: Green - Temp Ct Liaison/Officer
White - T & A Clerk
Yellow - Prosecutor
Pink - Court

J-85222

G-6
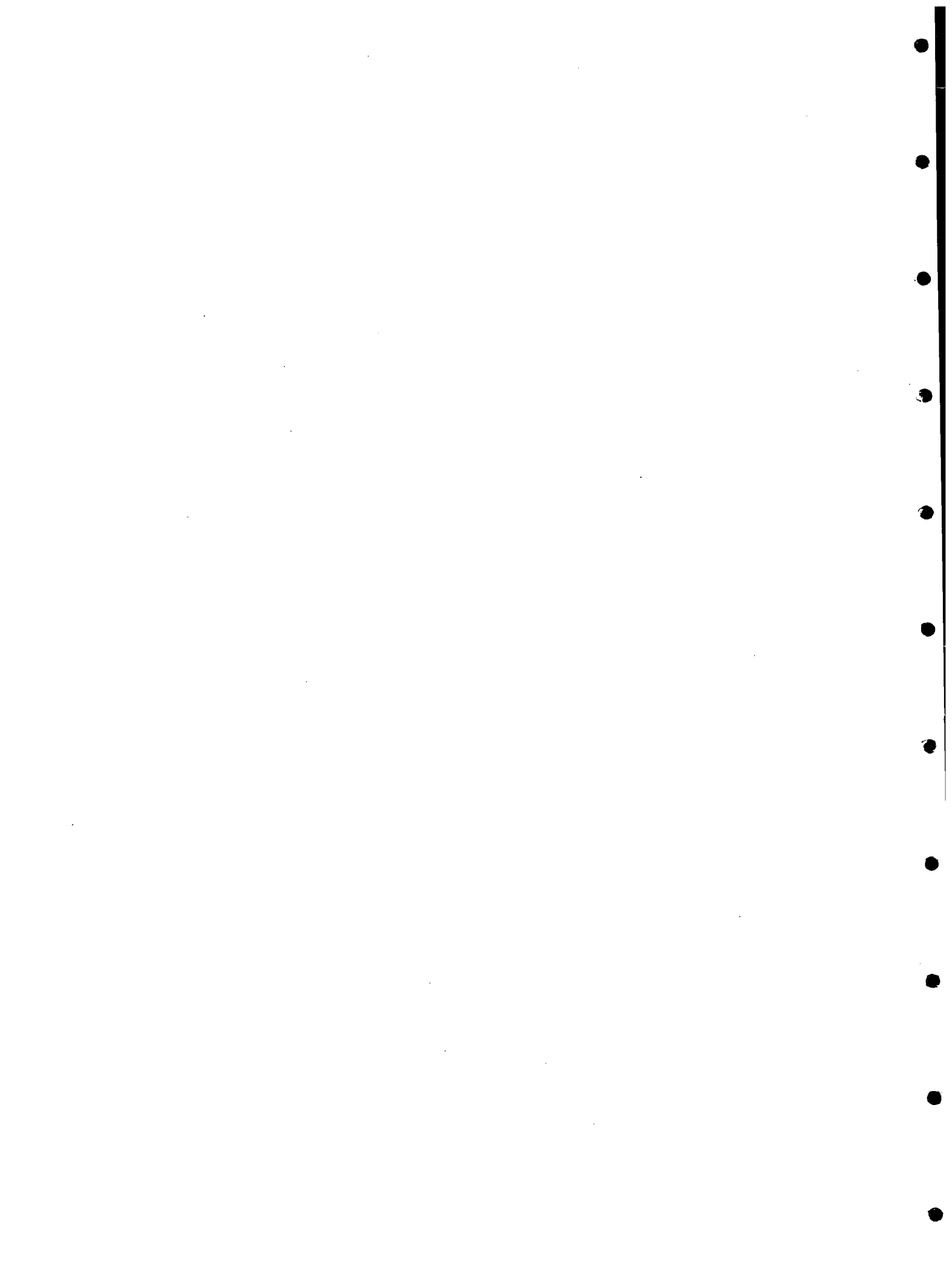
ATTACHMENT 1

A Model for Allocating Judicial Resources

Introduction

This memo discusses some preliminary work on a model for the allocation of judicial resources that makes use of both historical performance data as well as subjective managerial input. It is intended for use at both the local court level, to assist in determining judicial allocations to different departments, such as criminal or civil, and at the state court level to aid in the state-wide planning and allocation functions.

Policy makers in the courts must make allocation decisions to satisfy a range of objectives. At times, these objectives may conflict with each other and a trade-off of objectives must be explored. As an example, the administrator of a court hearing both civil and criminal cases may face a decision on how many judges to allocate to each department. The allocation could be made so that the processing time for both civil and criminal cases will be equal. However, since society places a great deal of importance on the disposition of criminal cases, the allocation can be made so that the processing time for criminal cases is minimized, leaving very few resources for the civil area. From the administrator's point of view, neither or these objectives may be appropriate. Rather, the proper allocation may lie somewhere between the two objectives. In practice, the application of a single allocation objective will result in allocations with consequences that are unacceptable, for reasons that cannot be easily captured in a mathematical model. Managerial acceptability imposes some hidden
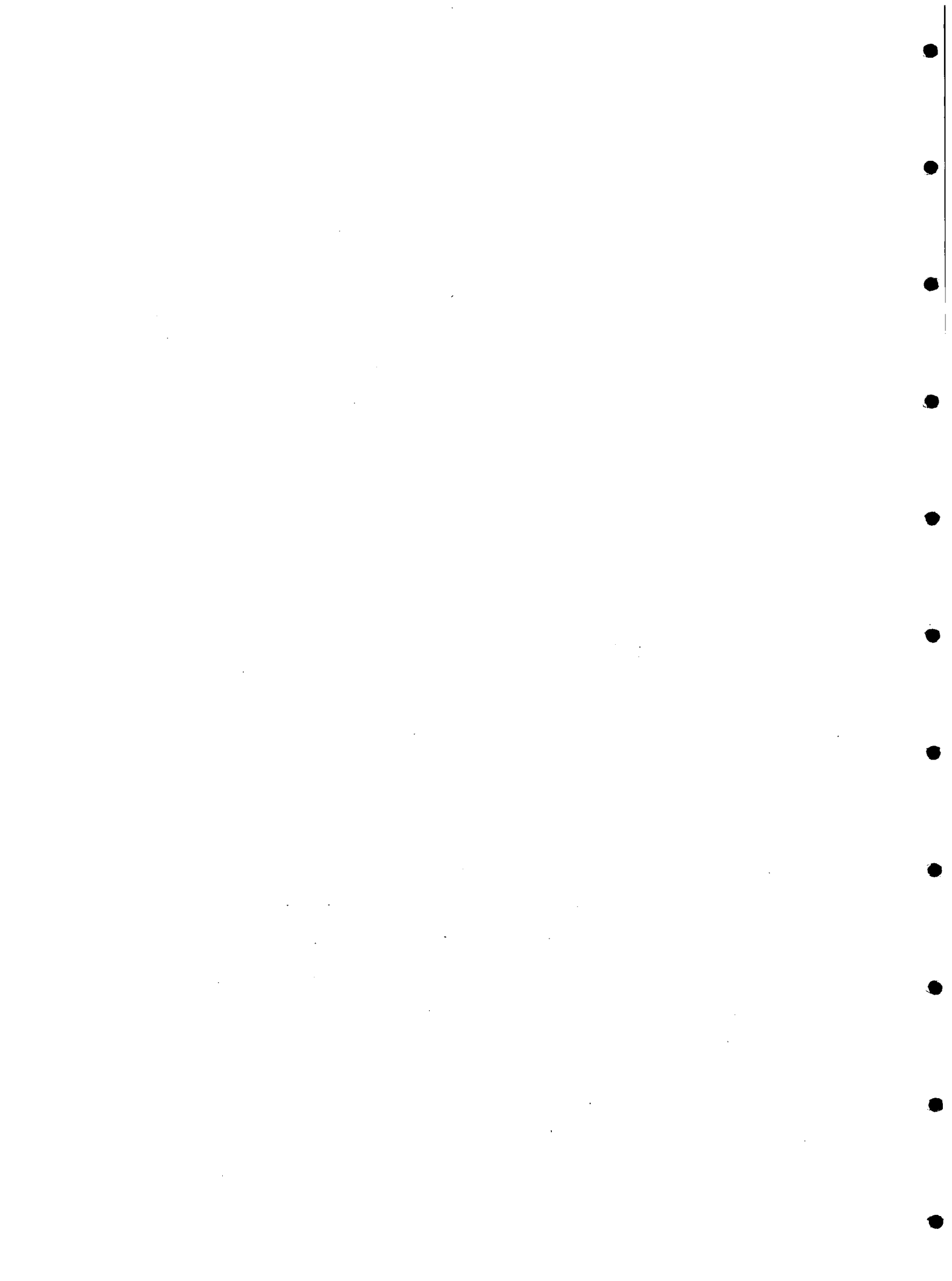
constraints that make the identification of a single allocation criterion inadequate. Rather than the optimization of a single well-defined criterion, the court administrator's decision requires the integration of several often conflicting objectives.

The philosophy behind the model is that any preference for one allocation criterion over another is in effect a managerial decision that must be made based on an analysis of the consequences resulting from employing that criterion or objective. The model is therefore designed to allow the decision maker to examine allocations that result from a wide range of criteria by varying a single parameter. The administrator's judgment can then be added to the output displayed by the model in integrating the complex factors involved in equity, efficiency and feasibility. The administrator, not the model, decides on an equitable balance of resources. The model only displays the best allocation for a given criterion.

The Model

A necessary first step is the definition of some measure of performance which describes the court's activity under any given allocation of resources. The measure used will be the expected total elapsed time for processing a case about to enter the court system at the point in time when the allocation decision is being made. As a first cut a very simplistic view will be taken in determining this measure. Suppose that a court processes cases of a given type on a first-come, first-served basis. In this instance, a new case of a given type entering the system
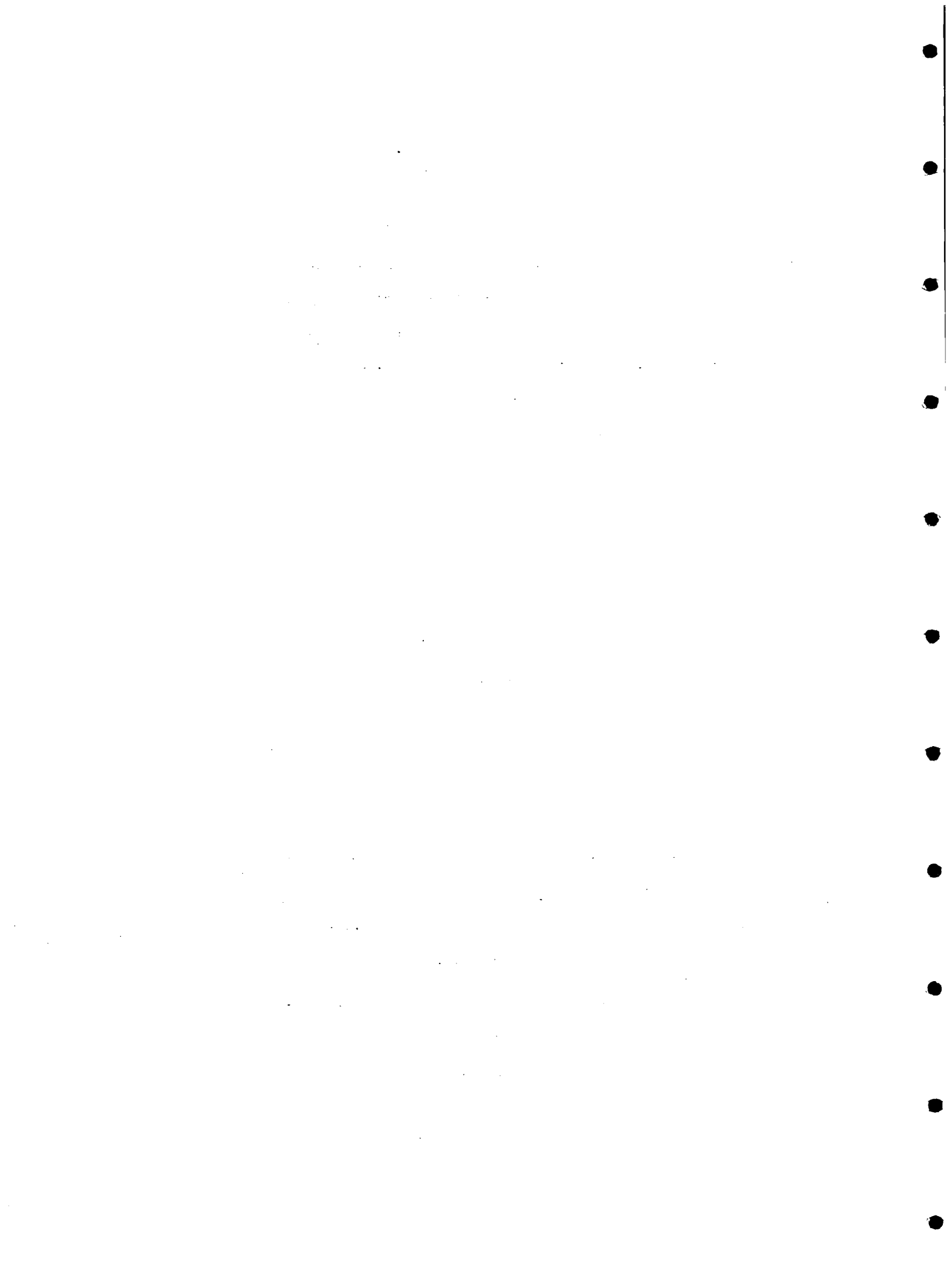
will have to wait until all cases of the same type already pending are disposed of. If the rate at which cases are disposed of were known, the expected elapsed time for the next case to be filed could be computed as the amount of time required to dispose of all cases already pending. This provides estimates of future performance by applying recent disposition rates to the pending caseload. Obviously, the time required to dispose of the pending caseload depends on the number of judges assigned to hear those cases. Formalizing this estimation procedure

let N = total pending caseload

           P_i = proportion of cases which are of type i

           U_i = disposition rate per judge for hearing type i

           n_i = number of judges hearing cases of type i

           T_i = expected elapsed processing time for a case of type i.

Therefore,

$$T_i = \frac{P_i N}{U_i n_i}$$

With T_i as the measure of service, several allocation objectives can be considered. One plausible strategy would be to minimize the sum of the T_i's for all case types. If the T_i's are weighted by some factor, perhaps the number of cases of that type times a priority for that case type (a discussion of an appropriate weight will occur later), most of the judges will be allocated to the highest priority, highest volume cases. This may be unsatisfactory since the expected elapsed

G-9
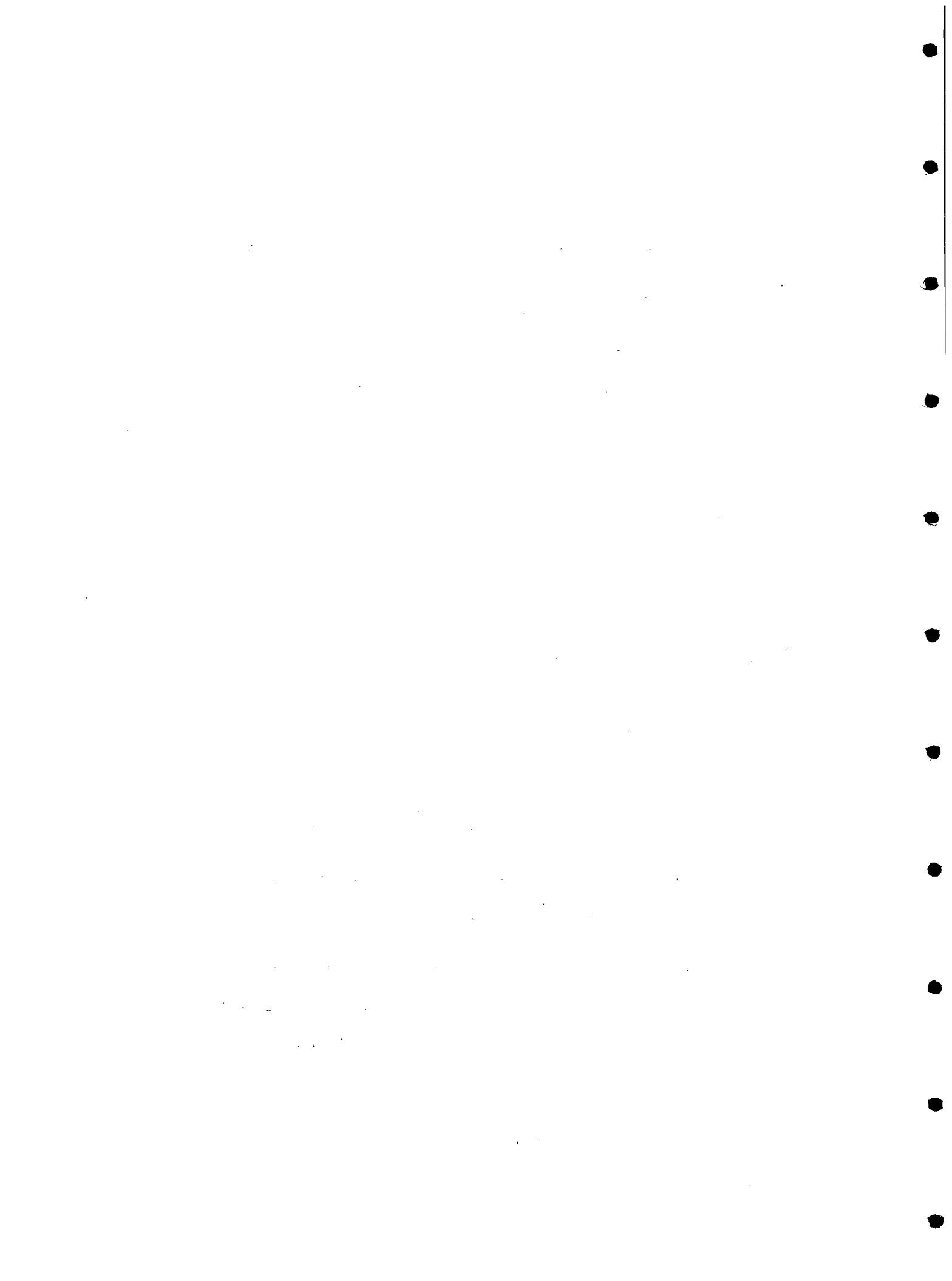
time of low priority cases may become very high. Another plausible strategy would be to equalize processing times. This would negate the effects of any priority given to certain types of cases.

While neither of the above policies is likely to produce satisfactory allocations, some policy between these two extremes may be reasonable. The model described in this memo uses an objective function that encompasses, by changing the value of a single parameter, the minimum total processing time objective, the equal time objective, and intermediate objectives.

The general form of the model is:

$$\text{Minimize} \quad \sum_i w_i \left[T_i(n_i) \right]^a$$

$$\text{subject to} \quad \sum_i n_i = M$$

where

w_i is some weight for case type i

n_i is the number of judges allocated to hear cases of type i

$T_i(n_i)$ is the expected processing time for cases of of type i if n_i judges are assigned to hear those cases

M   is the total number of judges to be allocated

a   is the trade-off parameter.

If a = 1, then the problem is to minimize the total processing time (weighted). As a becomes very large (a → ∞), the longer processing times dominate the objective function, and the minimization tends to

equalize the processing times. For values of a greater than 1, but not too large, intermediate objectives are satisfied. The value of a expresses the degree of trade-off between the two extreme objectives.

Before proceeding to the solution of this problem, the weighting factor, w_i should be considered. A reasonable scheme would be to weight the number of cases of type i by the expected workload (a weighted caseload) for cases of that type. Additionally a priority factor, reflecting the differences in case type disposition requirements can be included. However, the exact definition and form of the proper weight requires further research.
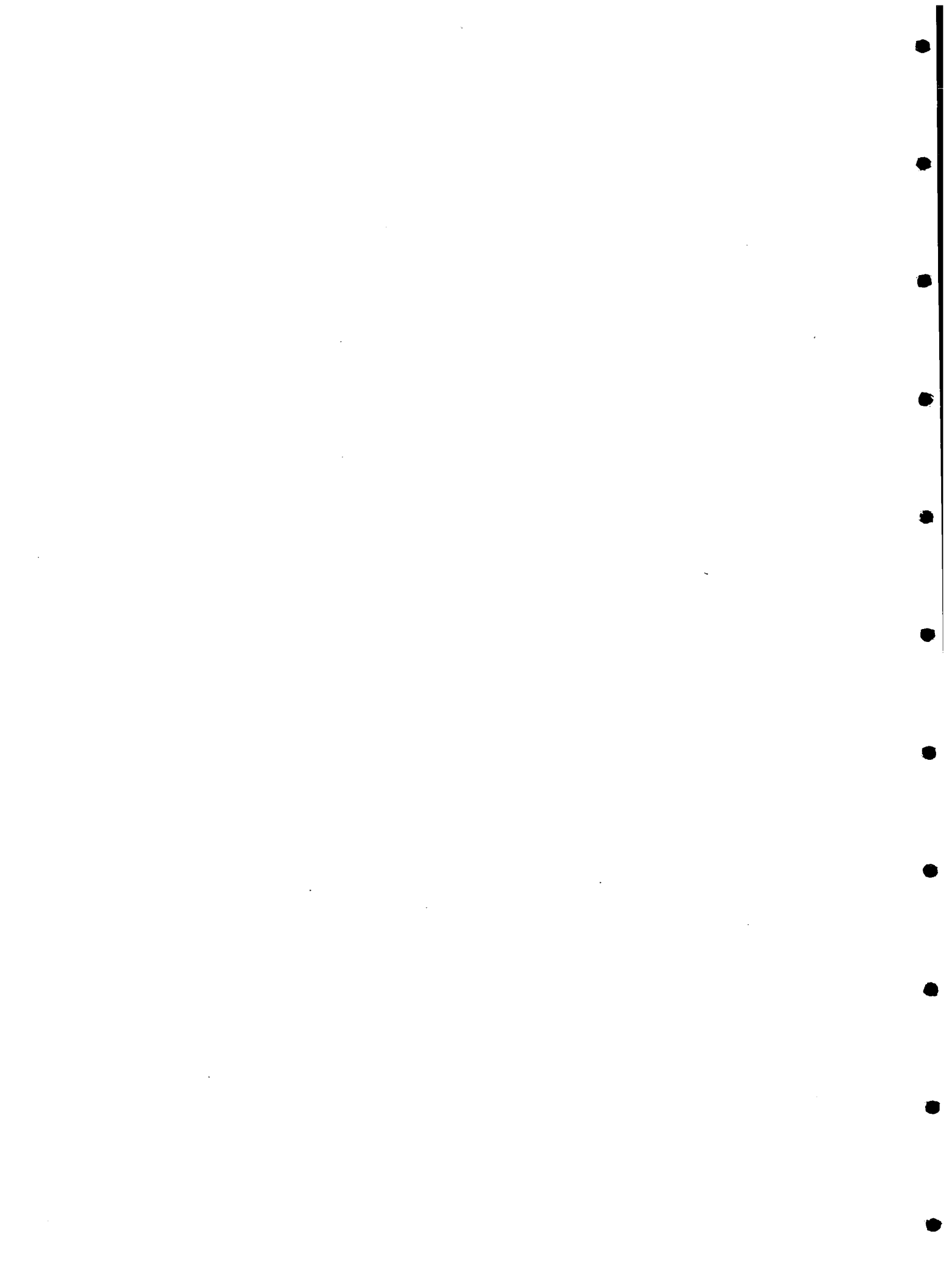
Solution

The problem stated above lends itself to analytic solution. Readers of this memo who have a tendency to doze off during mathematical discussions can assume that the problem is solved in this section and proceed to the next section where an application of the results is discussed. Do not pass GO! Restating the problem

$$\text{Minimize} \quad Z = \sum_i w_i \left[\frac{P_i N}{u_i n_i} \right]^a$$

$$\text{so that} \quad \sum_i n_i = M$$

Using Lagrange multipliers to convert this to an unconstrained minimization yields

$$\text{Minimize } \hat{Z} = \sum_i w_i \left[\frac{P_i N}{u_i n_i} \right]^a + \lambda \left(\sum_i n_i - M \right)$$

where λ is an undetermined multiplier.

The solution to this form of the problem can be found by finding the n_k that satisfy

$$\frac{\partial \hat{Z}}{\partial n_k} = 0$$

or

$$0 = -a w_i \left[\frac{P_i N}{u_i} \right]^a \left[\frac{1}{n_k} \right]^{a+1} + \lambda$$

The solution (optimal number of judges to hear cases of type k) is:

$$n_k^* = \left[\frac{\lambda}{a} \right]^{-\frac{1}{a+1}} w_k^{\frac{1}{a+1}} \left[\frac{P_k N}{u_k} \right]^{\frac{a}{a+1}}$$

If we let $b = \frac{1}{a+1}$ then,

$$n_k^* = \left[\frac{\lambda}{a} \right]^{-b} w_k^{b} \left[\frac{P_k N}{u_k} \right]^{ab}$$

The constraint $M = \sum_i n_i$ can be used to solve for $\left[\frac{\lambda}{a} \right]^{-b}$ in order to

eliminate λ from the solution. By summing over all the n_k^* we obtain

$$\sum_i n_k = M = \left[\frac{\lambda}{a} \right]^{-b} \sum_i w_i^{b} \left[\frac{P_i N}{u_i} \right]^{ab}$$

$$\left[\frac{\lambda}{a} \right]^{-b} = M \left[\sum_i w_i^{b} \left(\frac{P_i N}{u_i} \right)^{ab} \right]^{-1}$$

G-12

Therefore

$$n_k^* = \frac{w_k^b \left(\dfrac{P_k}{u_k} \right)^{ab} M}{\sum\limits_i \left[w_i^b \left(\dfrac{P_i N}{u_i} \right)^{ab} \right]}$$

This result can easily be calculated.

A final observation is relevant here. If the weight, w_i is defined as the work content of the pending caseload of type i, (e.g. the weighted caseload) then the case where $a \rightarrow 0$ has a meaningful interpretation. For this case $b = 1$ and

$$n_k^* = \frac{w_k}{\sum\limits_i w_i} M$$

Therefore the allocation of resources is proportional to the work content for cases of that type. (This interpretation is most useful when using the model at the state level.)

Application of results

This model has been programmed on the TEKTRONIX 31 calculator and is available for experimentation. More work needs to be done on the calculation of the T_i's and the w_i's.
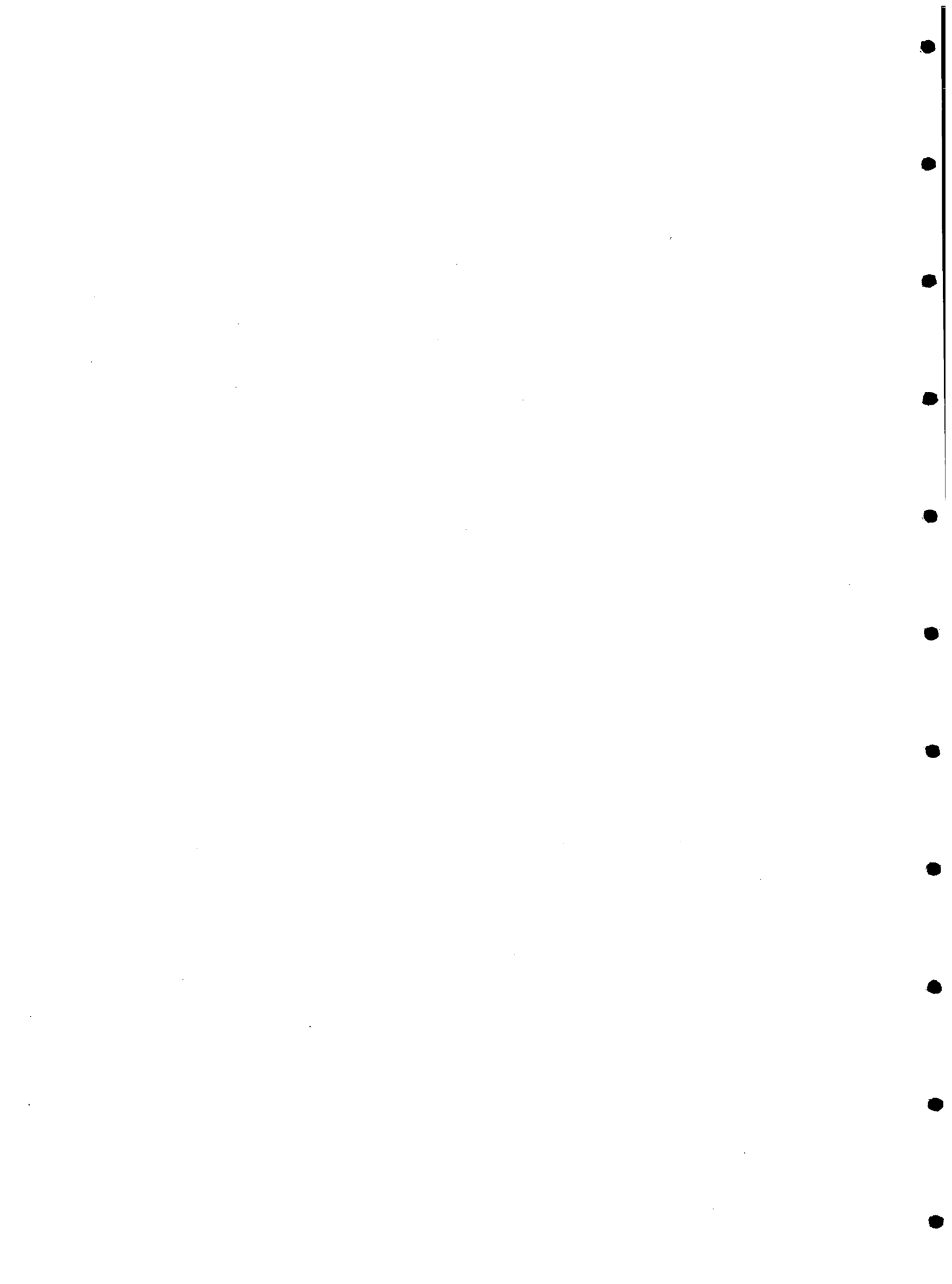
In spite of this caveat, some results when the model is applied to data from a large metropolitan court can be shown.

Assume that 80 judges must be allocated to one of two divisions, either a civil or criminal division. In each division, only trial level cases are heard. Caseload and disposition data appear below.

	Pending Cases	Disposition per day per judge (based on most recent data)
Civil	4,197	1.28
Criminal	10,593	1.69

Since assignment of priorities to the two case types is not yet possible, it is assumed that each has equal priority. The weight w_i for each type will be the total weighted caseload.

In order to assign judges in proportion to the workload in each division (a=0), 22.7 judge-years should be allocated to the civil division and 57.3 to the criminal division. This will result in an expected processing time of 144.4 days for civil cases and a corresponding processing time of 109.3 days for criminal cases.

If the total processing time is to be minimized (a=1), then an allocation of 25.1 judge-years to civil and 54.9 judge-years to criminal will result in expected processing time of 131 and 114 days, respectively.

In order to equalize processing times in both divisions (a → ∞; a=100 is close enough) an allocation of 27.9 judge-years to civil and 52.1 judge-years to criminal will yield processing times of 119 days in each division.
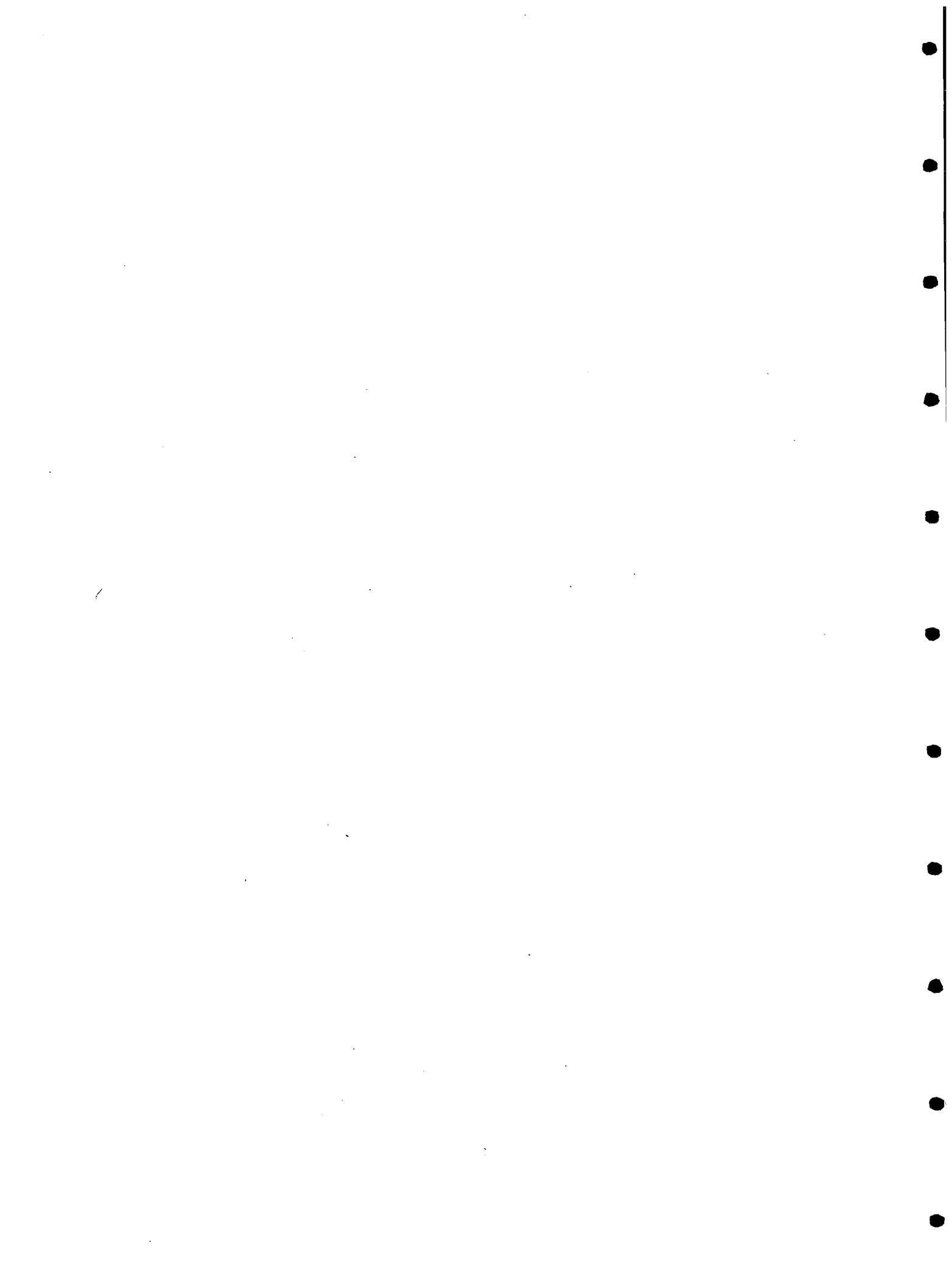
Model Results:

	a=0	a=1	a=100	a=2	a=10
	(proportional to workload)	(minimize total time	equalize processing time	(intermediate policies)	
Civil Allocation (Judges)	22.7	25.1	27.9	25.8	27
Criminal Allocation (Judges)	57.3	54.9	52.1	54.2	53
Expected Processing Time (Civil) T_{civil} (Days)	144.4	131	119	126.9	121
Expected Processing Time (Criminal) T_{crim} (Days)	109.3	114	119	115.9	118
Total Processing Time Judge - Days	1,764,993	1,757,688	1,764,706	1,758,498	1,762,575
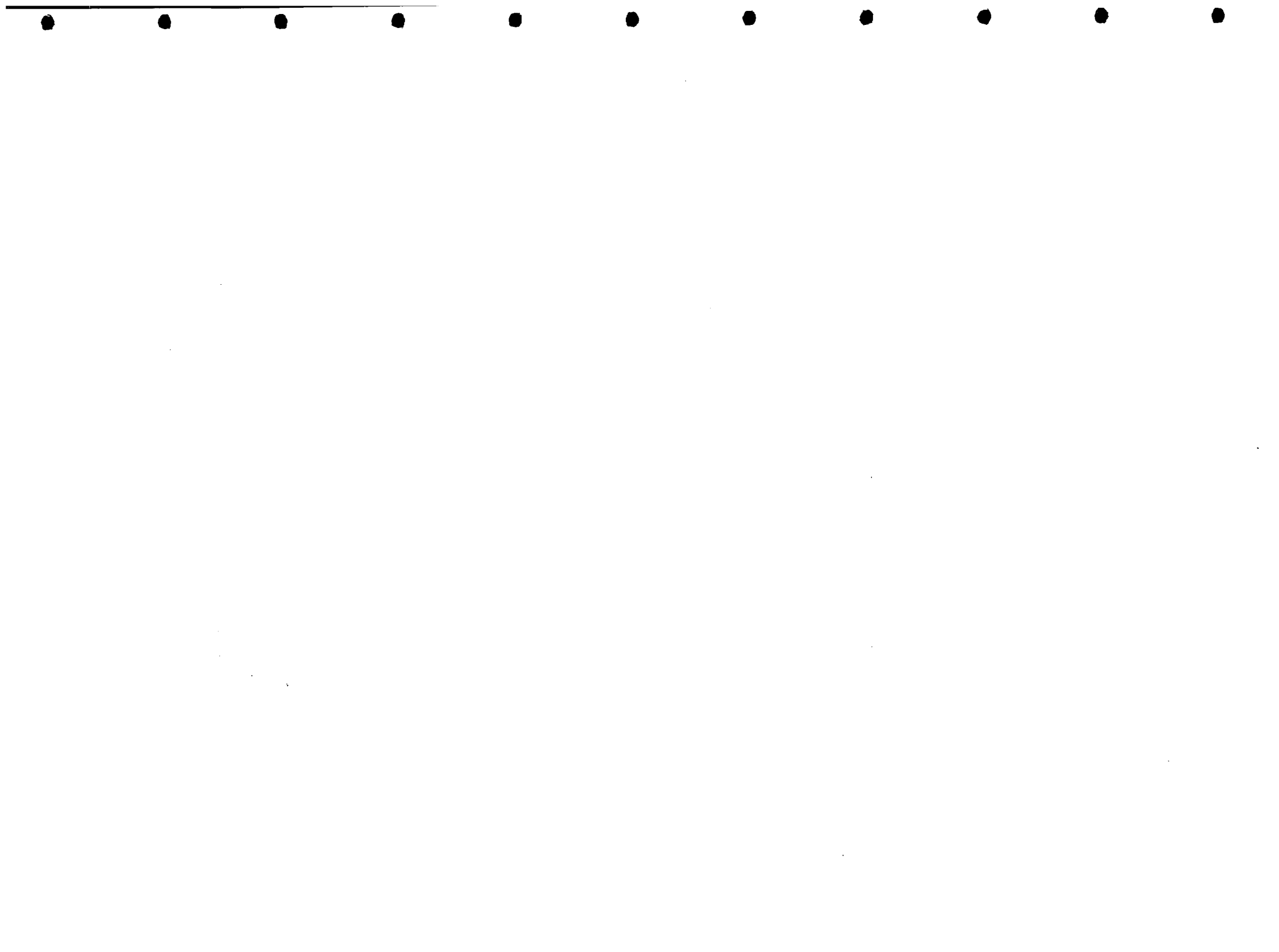
Finally, if none of these values is acceptable, an intermediate policy (expressed by, say, a=2) with an allocation of 25.8 judges to civil will result in an average processing time of 126.9 days. The remaining judges will be assigned to the criminal division resulting in an average processing time of 115.7 days.

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Postscript:

The model of judicial allocation has potential but is, for the moment, in an embryonic stage. It requires some empirical research to confirm some of the relationships, as well as to remove some of the oversimplifications of the model. Some of the more obvious deficiencies where further work will improve the model's utility are:

A: Estimation of $T_i(n_i)$

° Relies solely on the pending caseload. This is fine in the situation where the pending caseload is high and the planning horizon relatively short. For longer planning periods, or in instances where the backlog is low, a factor should be included which estimates the influx of new cases during the planning period.

° How is pending caseload to be defined?

° Is the relationship more complex?

B: Estimation of W_i

° How is an empirical estimate of the relative priority factor derived either implicitly or explicitly?

° What form does the priority weight take?
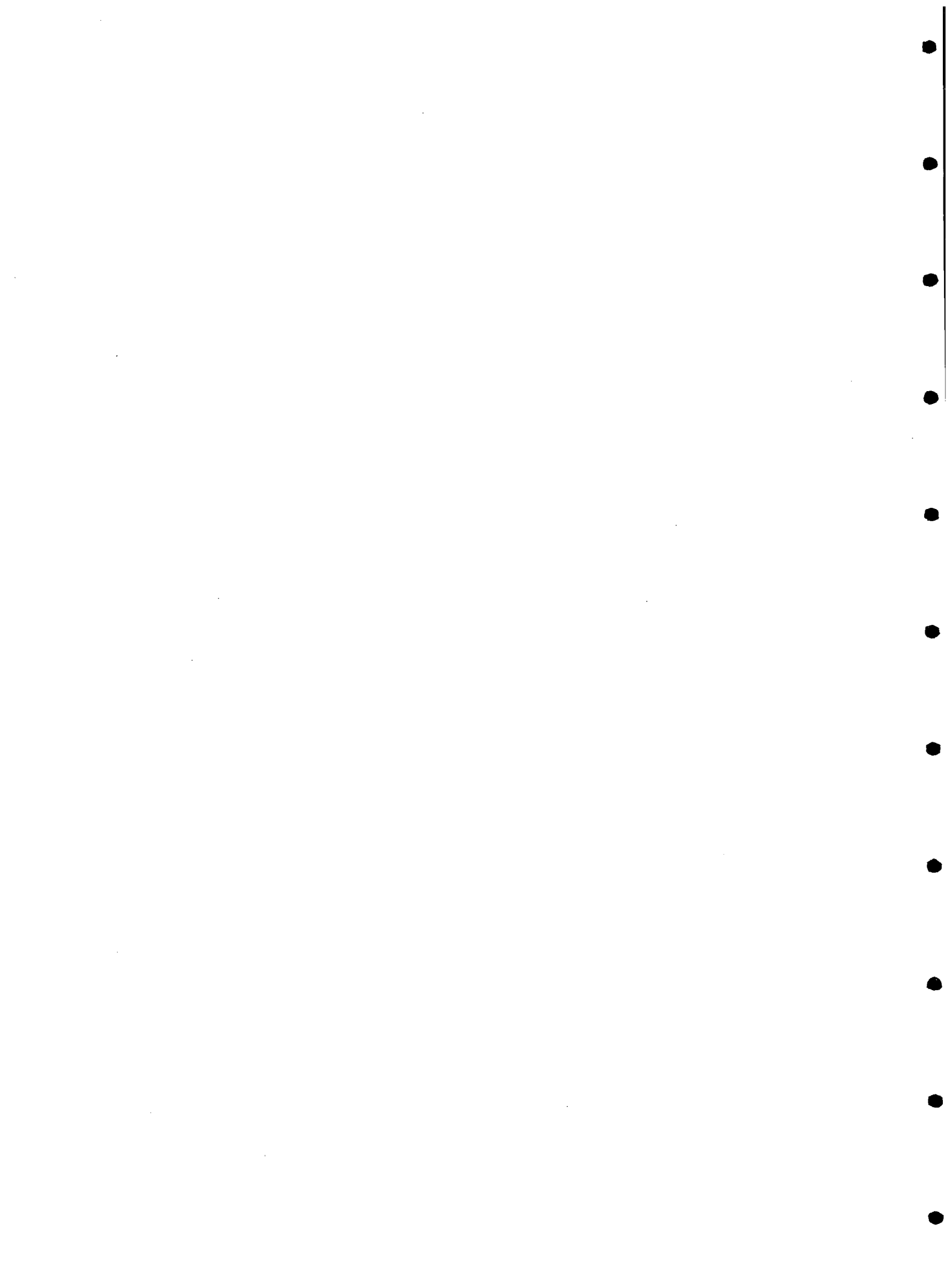
ATTACHMENT H

WORK PLAN FOR MILWAUKEE COUNTY CIRCUIT COURT

WORK PLAN FOR MILWAUKEE COUNTY COURT

Purpose

The purpose of this work plan is to initiate participation of the Milwaukee County Court (hereafter referred to as "the Court") as a pilot site for the Phase II of the Institute for Law and Social Research's (INSLAW) court scheduling project.

The work plan outlines the tasks to be undertaken, the resources to be applied to those tasks both by INSLAW and by the Court, and the timetable for task completion. The plan presents INSLAW perceptions of the priorities and requirements of the Court. However, discussion and negotiation are encouraged to arrive at a mutually agreeable and realistic set of products.

The products must be beneficial to the court in scheduling its cases but must also be transferable to other courts with similar environmental constraints. Transferability of products will be enhanced by thorough documentation and development of generalized software written in ANSI COBOL where possible.

Background

The three tasks listed below are recommended by INSLAW as a result of visits to the Court, including observation, some data collection and analysis and discussion with Court personnel.

Since ongoing implementation of the JUSTIS system in Milwaukee County was one of the factors involved in its selection as a pilot court, emphasis will be placed on potential improvements in scheduling the criminal business of the court. However, care will be taken to integrate and improve in as far as is possible the civil scheduling processes as well.

Also, since responsibility for administration of justice in Milwaukee County is distributed among many agencies and levels within those agencies, it will be necessary for the INSLAW project team to have key contacts in Milwaukee for continuity of coordination and information flow. Court contact will be Mr. Ron Witkowiak and JUSTIS contact will be Mr. Lou Metz.
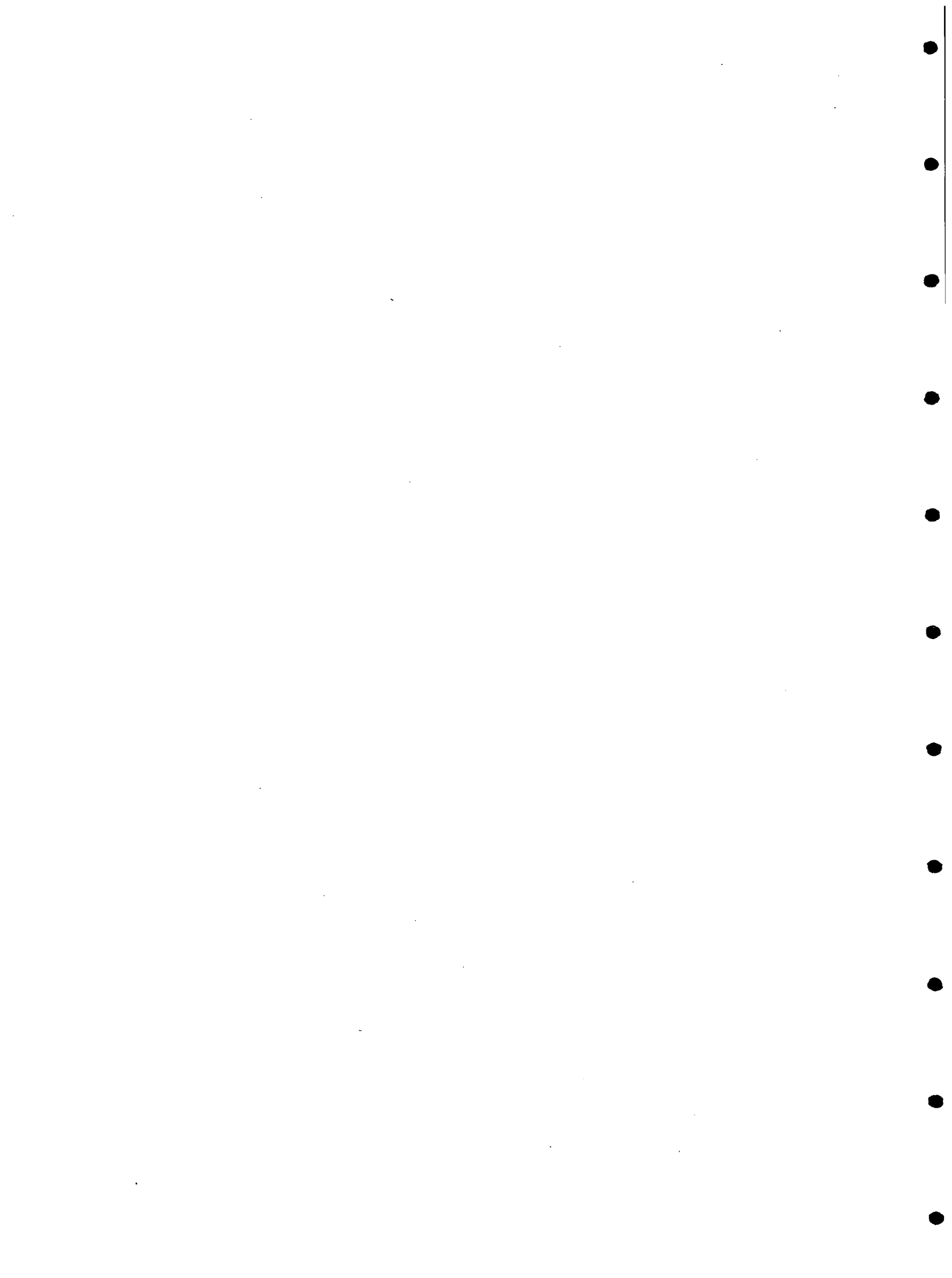
H-1

Our concept of court scheduling is a comprehensive one, embracing the policy-setting and resource management functions normally associated with case flow management. The three components which comprise a court scheduling system, the management component, calendaring component, and data support component are described in the Phase I Guide To Court Scheduling, 1. A Framework for Criminal and Civil Courts.

The three tasks herein recommended are:

1. Analyze Existing Scheduling Operations and Functions;

2. Develop a Management Component for the Court's Scheduling System; and

3. Enhance the Capabilities of JUSTIS to Encompass Scheduling Functions.

The tasks, their rationale, and the steps involved are described in greater detail below.

Task 1 - Conduct Analysis of Existing Scheduling Operations

In order to design an effective scheduling system and to take full advantage of potentially useful scheduling information available through JUSTIS, a study of existing scheduling procedures and policies is required. In the course of this task, data describing the operation of the court, the volume and nature of the case load, and the resources available to the court to process its work load will be collected. An attempt will be made, wherever possible, to synthesize anecdotal, descriptive information with quantitative data in order to draw a complete picture of the processes and interactions associated with scheduling.

The following steps will be required to complete this task:

Step A - Document the Court's Existing Scheduling Procedures. In this step, INSLAW will define and document the existing scheduling process, viewed from the perspective of the Court as a complete system. Issues such as information requirements, time constraints, statutory and other constraints will be taken into consideration. The processes of case intake, judge assignment, utilization of reserve judges and reassignment will be fully documented. Existing information flows will also be documented. Appropriate court personnel will review the process descriptions for accuracy and completeness.

H-2

Step B - Define the Scheduling Requirements of
Individual Judges. Since the Criminal Division
of the Court operates under an individual calen-
dar, INSLAW will interview individual judges to

determine the techniques used by them in case
scheduling, as well as to document existing
scheduling objectives and priorities. This in-
formation will complement the procedural de-
scriptions documented in Step A.

Step C - Document Interrelationships With Other
Justice Agencies. The scheduling operations of
the Court are closely related to those of other
justice agencies such as the Defense Bar, the
Police, the District Attorney, etc. In this step
INSLAW will examine the lines of communication
between the Court and those agencies and the
nature of the scheduling interaction.

Step D - Determine Sources of Available Automated
and Nonautomated Data. INSLAW will identify,
through discussion with Court personnel, potential
sources of data (including JUSTIS) regarding the
operation of the Court. INSLAW will, as a result
of this step, define the data required for quan-
titative description of court operations.

Step E - Collect and Prepare Data in Machine Read-
able Form. Following completion of Step C above,
the Court will be responsible for extracting all
necessary data from the Court's information system
and preparation of machine readable files. In
addition, some manual data collection may be re-
quired.

Step F - Data Analysis. INSLAW will be responsible
for analyzing the data and integrating the results
with the products of Steps A-C in order to com-
pletely describe the Court's scheduling process.

Step G - Consult on Results of Data Analysis.
INSLAW will meet with representatives of the Court
to discuss the results of Task 1 and utilization
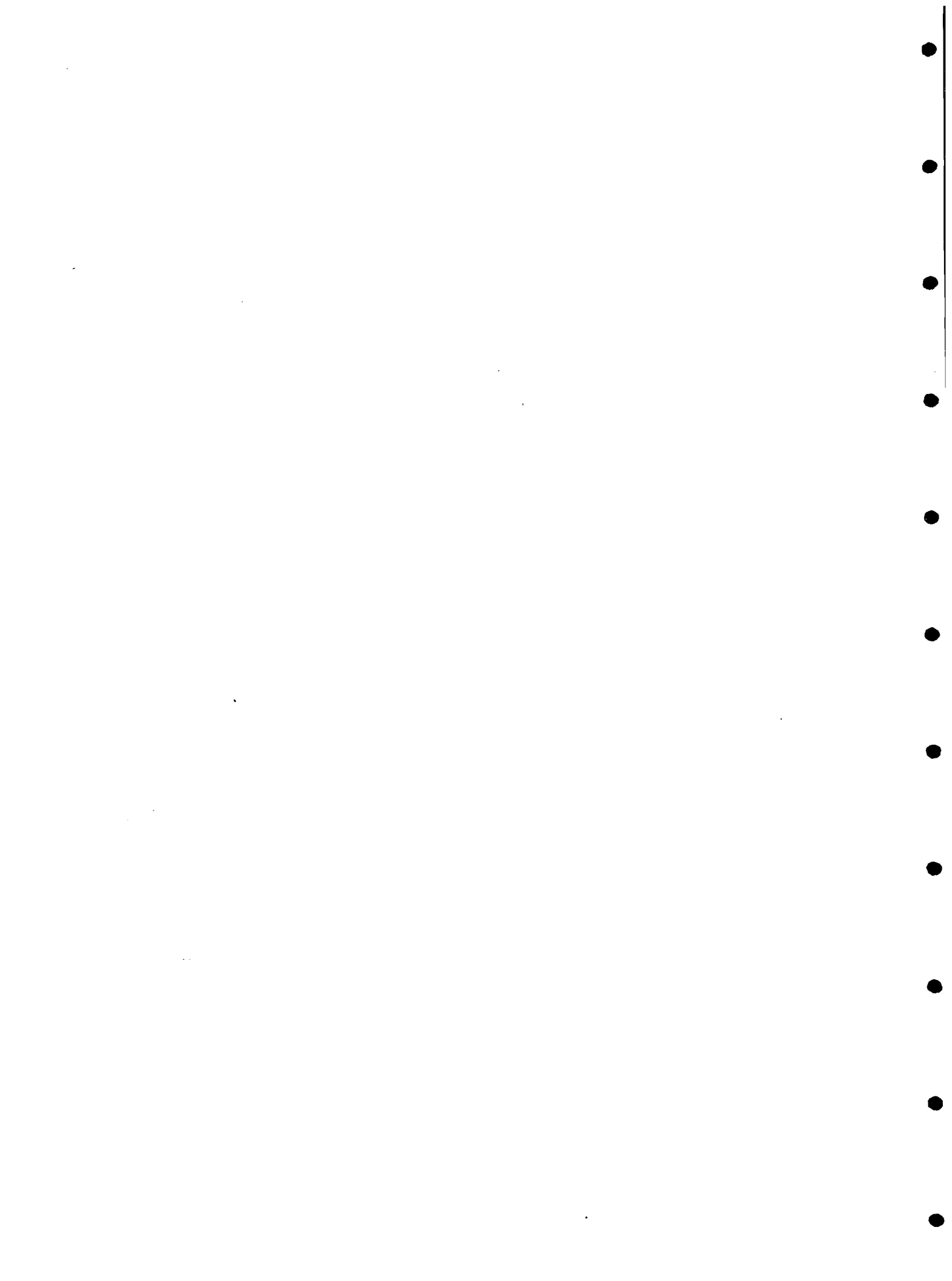of these findings in subsequent tasks.

Step	Responsible Party		Completion Date
	Court	INSLAW	
A. Document Existing Scheduling Procedures	X	X	
B. Define Scheduling Requirements of Individual Judges	X	X	
C. Document Interrelationships with Other Justice Agencies	X	X	
D. Determine Available Automated and Nonautomated Data Sources		X	
E. Collect and Prepare Data	X		
F. Data Analysis		X	
G. Consult on Results	X	X	

TASK 2 - Develop a Management Component

The objective of these tasks is to identify the priorities of the Court and to develop methods by which these priorities can be related to scheduling. Successful completion of this task will require identification of appropriate measures of scheduling performance and the development of an evaluation procedure for monitoring court performance with respect to the stated scheduling objectives. The result will provide a basis for managing the scheduling process and will serve to make scheduling policies more visible and rational for the court community.

The following steps are contemplated as part of this task.

Step A - Establish and Articulate Court Priorities and Objectives - The first step in developing an orderly and logical process for scheduling is to clearly spell out the objectives of the Court. This step will answer the question -- "What should the court scheduling system accomplish?" Once the objectives of the Court are identified they can be implemented through establishment of priorities, development of local court rules or through implementation of scheduling procedures.

H-4

Determining the goals and objectives of the Court is primarily the function of the judges. INSLAW's role will be that of a catalyst, raising issues for discussion. The discussion process will be supplemented by relevant analyses, available as a result of Task 1, which illustrate resource or work load constraints on the Court.

Step B - Identify Measures of Performance - Once the objectives of the Court have been clearly articulated, it becomes necessary to determine whether the operations of the Court are in keeping with those objectives. This process of evaluation requires the identification of appropriate performance measures. INSLAW will work closely with the Court to identify these measures which will characterize scheduling performance.

Step C - Develop a Proposed Scheduling Organization - Working with the Court, INSLAW will develop a scheduling organization designed to facilitate the flow of information necessary to implement and periodically evaluate the objectives of the Court as they relate to scheduling.

Step D - Design and Develop Software Specifications for a JUSTIS Scheduling Evaluation Report - INSLAW will write a set of specifications for developing the software needed to produce management reports for the Court. These management reports can be used by the Court to periodically evaluate the performance of the scheduling system.

Step E - Review Evaluation Report Design with Judges - INSLAW will review the design specifications for the evaluation report with judges and other court personnel. Any necessary design modifications will be made by INSLAW.

Step F - Develop Software for Evaluation Reports - The Court will provide programmers to write, test, debug and document the software using the specifications developed in Steps D and E above.

Step G - Prepare Training Materials - INSLAW will prepare a set of training materials to fully acquaint all Court personnel with the functions and operations of the management component.

Step	Responsible Party		Completion Date
	Court	INSLAW	
A. Establish Court priorities and objectives	X	X	
B. Identify measures of performance	X	X	
C. Develop a proposed scheduling organization	X	X	
D. Design and develop software specifications		X	
E. Review design specifications	X		
F. Develop software for evaluation reports	X		
G. Prepare training materials		X	

TASK 3 - Transfer the Automated Calendar Management Techniques of the Dallas Criminal Court

The Phase I Survey of the status of automated scheduling uncovered a system supporting an individualized assignment court in Dallas, Texas. A brief description of the court and system is contained in the attached Guide to Court Scheduling.

The judicial philosophy supported by the system (and described as axioms) will be explained to participating criminal court judges and their own judicial philosophies sought by INSLAW during the Task 1 analysis. The "Dallas system" will be modified to reflect the requirements of the Milwaukee court during Task 3 and the responsiveness of the system to judicial needs will be closely monitored.

The objective of Task 3 is to provide automated scheduling assistance to the criminal court judges, operating under the individual calendar by enhancing the existing case tracking system JUSTIS (nee PROMIS). In so far as is possible, all enhancements will be transferable in concept, software and documentation.

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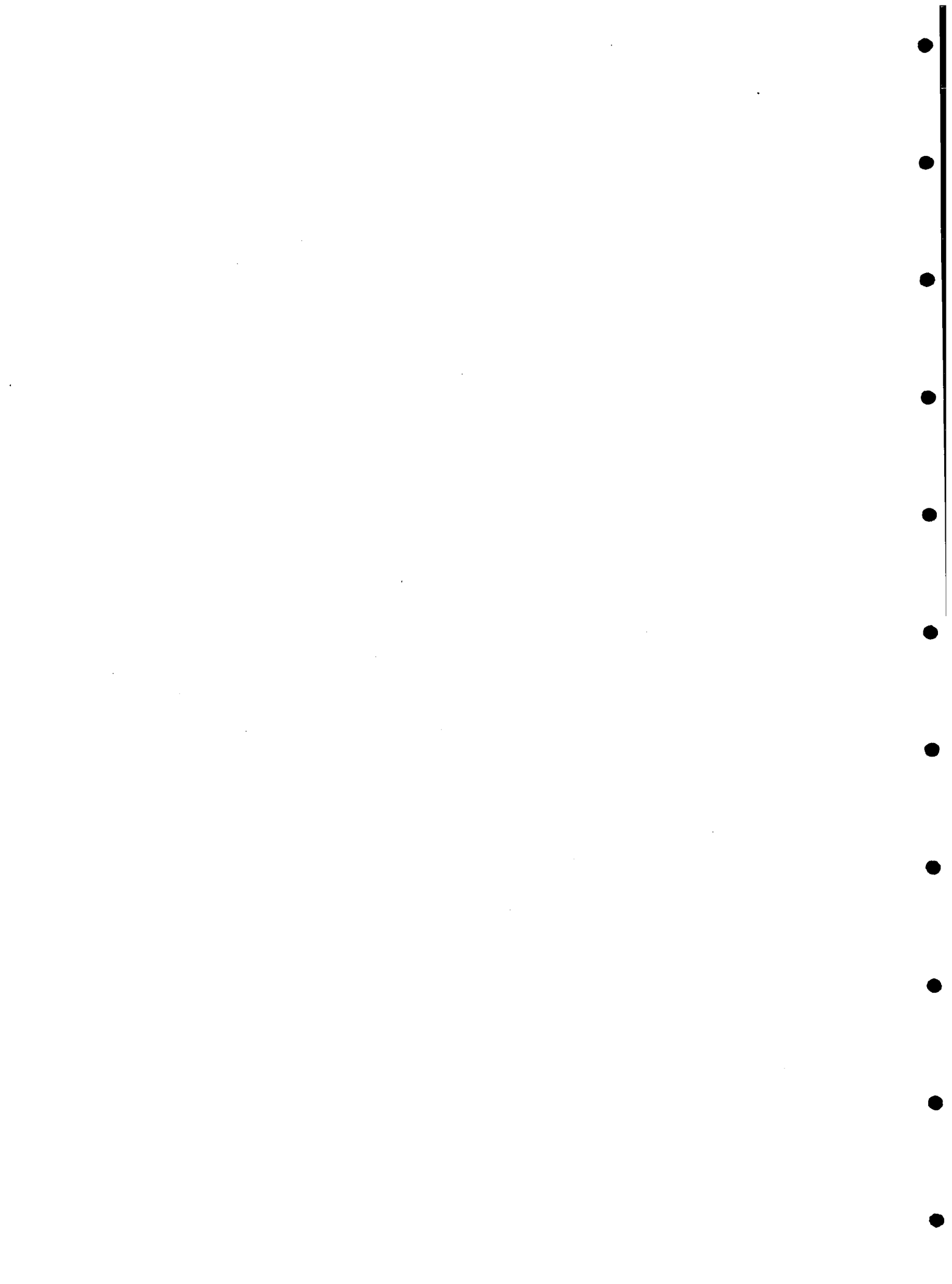
The specific steps involved in this task are:

Step A - Collect Documentation on Dallas Software System - The Dallas County Judicial Information System is a large, on-line county system which includes book-in and custody, bords, probation, civil cases and financial accounting. We are only interested in the one segment of cases in progress. We will collect documentation on the entire system however, in order to compare the data support functions to those of JUSTIS.

Step B - Compare Dallas System Capabilities to Milwaukee Requirements - The management component developed in Task 2 will provide the Milwaukee scheduling information requirements for comparison with the Dallas capabilities.

Since no similar capability exists in Milwaukee some orientation of the Judiciary will be required throughout this project.

Step C - Analyze Transfer Potential of Dallas Software and Estimate Programming Necessary - The Dallas system runs on an IBM 370-145 computer and is programmed in COBOL using AMIGOS and HYPERFASTER. In this step an analysis of the transfer potential of desired programs and an estimate of new programming will be made. It is realized from the on-set that most transfer will take place at the conceptual level and least at the program code level.

Step D - Develop Software Specifications - Program specifications will be developed to enhance JUSTIS to provide scheduling and case flow management data to judges. Specifications will be for software which is transferable to other similar environments and especially PROMIS-JUSTIS jurisdictions.

Step E - Write Procedures and Design Forms - In so far as forms and procedures, beyond those already necessary to support JUSTIS will be needed, they will be developed and reviewed with appropriate personnel. Procedures will be functionally oriented, similar to those in Volume V, PROMIS Functional Procedures.

Step F - Program and Test - Computer programming is to be developed and tested by Milwaukee County according to the specifications developed in Step D. Programming must be well documented and transferable.

Step G - Prepare Scheduling Sites - Terminals/printers will be ordered and installed as necessary. The extent to which terminals or printed reports are desirable will be addressed in Task 3.
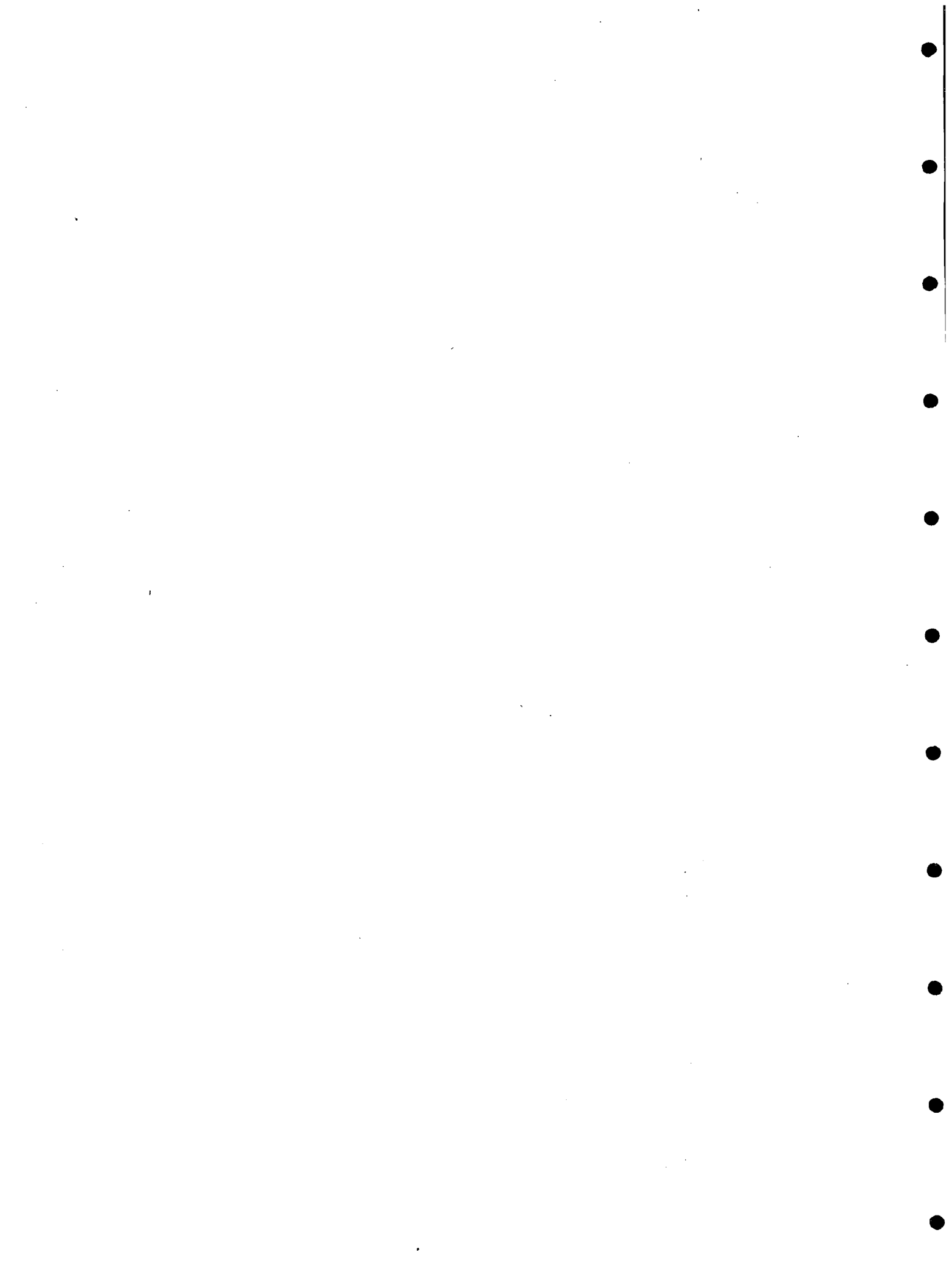
Step H - Orient Judges and Support Personnel in Scheduling
System Capabilities - An important aspect of this project
is raising the management consciousness of the judiciary
through their participation in the development of the
management component (Task 2) and by giving the judges the
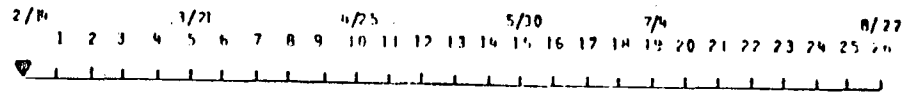tools to manage their schedules more effectively.

The purpose of this step is to acquaint the judges with
these new tools so that they will use them. Support person-
nel will also be trained in the scheduling system tools so
that they can assist the judiciary.

Step I - Implement Scheduling System, Monitor Use, and
Evaluate Performance - During this final step the system
will be implemented and judicial use monitored. Informa-
tion and assistance will be available to each participating
criminal court judge to encourage participation.

Finally, an evaluation of the scheduling performance of
the judges and the effect of the scheduling system on that
performance will be made. All final documentation will be
completed and other courts will be encouraged to consider
transfer of the scheduling package which results.

Step	Responsible Party		Completion Date
	Court	INSLAW	
A. Collect Dallas Documentation		X	
B. Compare Dallas to Milwaukee	X	X	
C. Analyze Transfer Potential	X	X	
D. Develop Software Specifications		X	
E. Write Procedures	X	X	
F. Write Programs	X		
G. Prepare Sites	X		
H. Orient Judges & Staff		X	
I. Implement & Evaluate	X	X	

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Work plan Gantt chart

Timeline header: 2/14, 3/21, 4/25, 5/30, 7/4, 8/27

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26
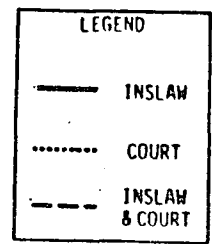
WORK PLAN FOR MILWAUKEE COUNTY
PILOT COURT SCHEDULING PROJECT

TASK 1
A
ANALYSIS B
C
D
E
F
G

TASK 2
A
MANAGEMENT B
C
D
E
F
G

TASK 3
A
DATA B
C
PROCESSING D
E
F
G
H
I

6-H

LEGEND
———— INSLAW
·········· COURT
– – – – INSLAW & COURT
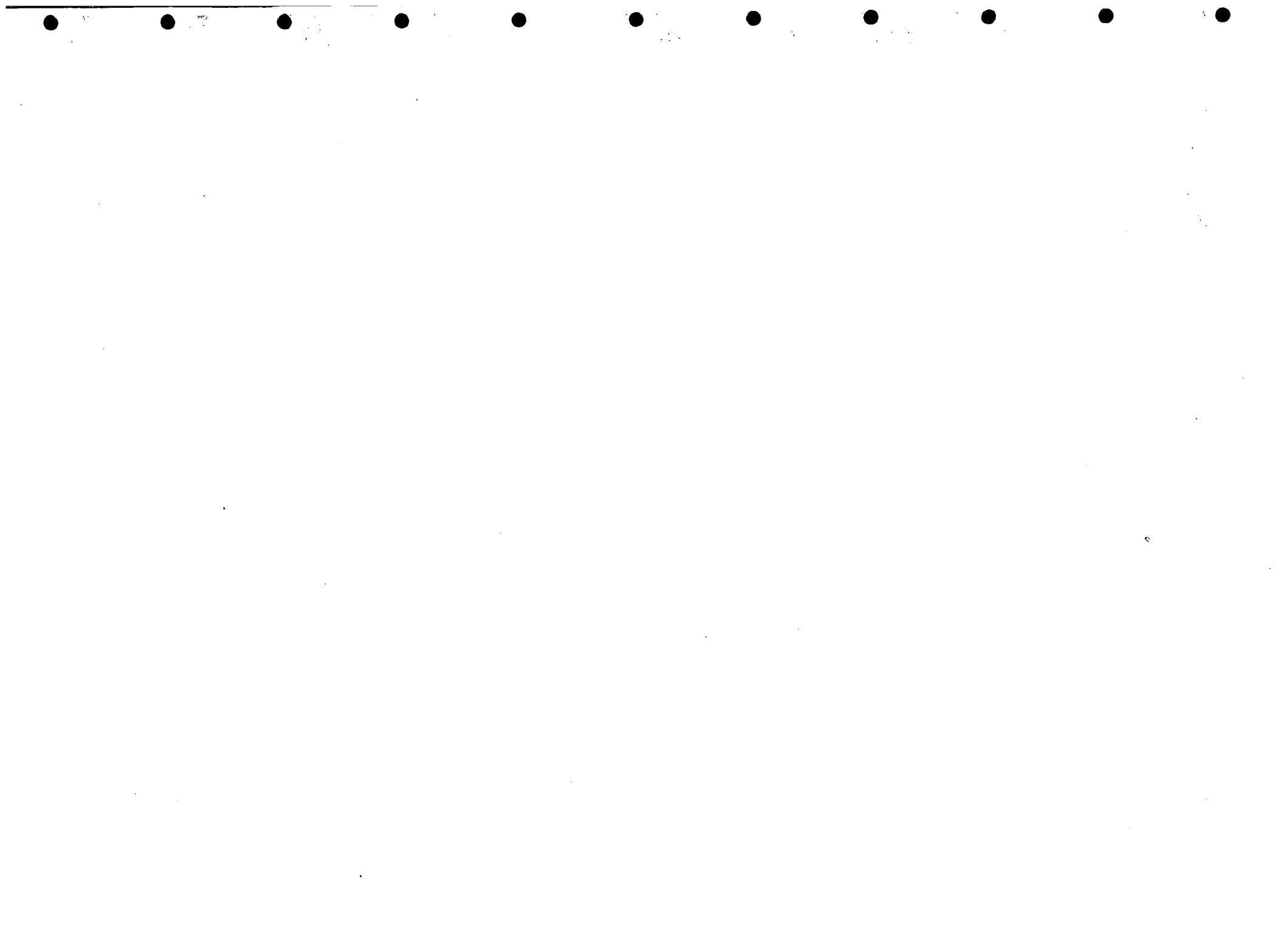
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