University of Chicago Law School

Chicago Unbound

Journal Articles

Faculty Scholarship

1962

Split Trials and Time Saving: A Statistical Analysis

Hans Zeisel

Thomas Callahan

Follow this and additional works at: https://chicagounbound.uchicago.edu/journal_articles

Part of the [Law Commons](#)

Recommended Citation

Hans Zeisel & Thomas Callahan, "Split Trials and Time Saving: A Statistical Analysis," 76 Harvard Law Review 1606 (1962).

This Article is brought to you for free and open access by the Faculty Scholarship at Chicago Unbound. It has been accepted for inclusion in Journal Articles by an authorized administrator of Chicago Unbound. For more information, please contact unbound@law.uchicago.edu.

SPLIT TRIALS AND TIME SAVING: A STATISTICAL ANALYSIS †

Hans Zeisel * and Thomas Callahan **

In 1959 the United States District Court for the Northern District of Illinois adopted a rule permitting separate trials of liability and damage issues in civil cases. At the request of the court the authors have conducted an investigation to determine the extent to which time is saved through use of the separation device. They use a variety of converging statistical approaches to arrive at the conclusion that in personal injury jury trial cases about twenty per cent of trial time may be saved. They then consider the possible ways that separation might lengthen trial time, and conclude that these will not offset the time saving to any degree.

Among the devices aimed at reducing the trial load of our courts, the split or separate trial of issues has been proposed as holding special promise. Trial time would be saved, the argument goes, if the issues of liability and damages were tried separately. The jury would be required first to bring in a verdict on liability, and only if liability were found would the jury hear evidence and render a second verdict on the issue of damages.¹ On the recommendation of the late Judge Julius H. Miner,² the United States District Court for the Northern District of Illinois was persuaded to test this device, and on November 3, 1959, adopted civil rule 21, set forth below,³ permitting separate trial on motion of a party

† We are happy to acknowledge the generous support of this study by the Walter E. Meyer Research Institute of Law. This investigation, an offshoot of the University of Chicago Law School's prior work on the jury system and court congestion, was conducted in closest collaboration with Professor Harry Kalven, Jr., Director of the Jury Project.

* Professor of Law and Sociology, University of Chicago Law School. Dr. jur., University of Vienna, 1927, Dr. rer. pol., 1928.

** Third-year student, University of Chicago Law School; Research Assistant, Jury Project, since 1957. M.A., University of Chicago, 1962.

¹ Such a plan was proposed in ZEISEL, KALVEN & BUCHHOLZ, *DELAY IN THE COURT* 99 (1959) [hereinafter cited as *DELAY*].

² Miner, *Court Congestion: A New Approach*, 45 A.B.A.J. 1265, 1268 (1959). Judge Miner died on March 11, 1963, the very day this report was submitted to his court. The cause of court administration, and especially its students, owe him a great debt of gratitude for his determined efforts to pioneer what promises to be a uniquely powerful delay remedy.

³ N.D. ILL. (Civ.) R. 21, set forth in 2 FED. RULES SERV. 2D 1048-49 (1960):

Pursuant to and in furtherance of Rule 42(b), Federal Rules of Civil Procedure, to curtail undue delay in the administration of justice in personal injury

or at the direction of the court. Though the rule was sponsored in order to save trial time, a commodity in short supply in most metropolitan courts, attempts were soon made to upset it on the ground that this major departure from the traditional mode of trial might affect the substance of the verdicts rendered by juries. But the Court of Appeals for the Seventh Circuit held that the rule preserved the essential character of trial by jury and was within the ambit of Rule 42(b) of the Federal Rules of Civil Procedure, which permits separated trial of issues in the interest of convenience.⁴

Prior to the promulgation of the rule, Chief Judge Campbell asked the Law School of the University of Chicago to design a research operation that would measure the effect of separation on the trial load of the court.⁵ A later report may deal with the above-mentioned substantive considerations; the present report treats only of one aspect of the rule — its impact on trial time.

The way in which separation of issues may save court time is clear. In the traditional form of trial, the damage issue must be litigated even where the verdict will ultimately reject liability; separation would eliminate the need for trying the damage issue in those cases, comprising roughly 40 per cent of all personal injury jury trials.⁶ Even where liability was affirmed, it seemed likely

and other civil litigation wherein the issue of liability may be adjudicated as a prerequisite to the determination of any or all other issues, in jury and non-jury cases, a separate trial may be had upon such issue of liability, upon motion of any of the parties or at the Court's direction, in any claim, cross-claim, counterclaim or third-party claim.

In the event liability is sustained, the Court may recess for pre-trial or settlement conference or proceed with the trial on any or all of the remaining issues before the Court, before the same jury or before another jury as conditions may require and the Court shall deem meet.

The Court, however, may proceed to trial upon all or any combination of issues if, in its discretion, and in furtherance of justice, it shall appear that a separate trial will work a hardship upon any of the parties or will result in protracted or costly litigation.

⁴ *Hosie v. Chicago & N.W. Ry.*, 282 F.2d 639 (7th Cir. 1960), *cert. denied*, 365 U.S. 814 (1961). The court did not decide whether the use of different juries for liability and damage issues as authorized by the district court rule violates the seventh amendment. The district court has confined the operation of rule 21 to single juries. *Cf. O'Donnell v. Watson Bros. Transp. Co.*, 183 F. Supp. 577 (N.D. Ill. 1960).

⁵ Throughout the study Judges Campbell, Miner, and Robson acted as advisers, for which we owe them a great debt of gratitude. We also want to thank the other members of the court and its clerks for their meticulous help throughout these two years. We are especially indebted to Mr. Roy Johnson, Special Assistant to Judge Campbell, and to Miss Aileene C. Coldby, Chief Deputy Clerk, for their untiring cooperation. Appreciation is also due to Mr. Orin S. Thiel and Mr. Ronald H. Beatty of the Administrative Office of the United States Courts for their thoughtful help in supplying us with a series of control statistics from their office.

⁶ From a nationwide sample of civil jury trials, which forms part of the basic data of the Jury Project of the University of Chicago Law School.

that trial time might be saved by the stimulus to settlement before the damage issue is litigated. There remained, however, the possibility that these savings might well be offset by a number of countervailing factors not so immediately obvious. Thus the separation of issues might reduce the proportion of cases settled, and thereby increase the number of cases requiring trial. It might reduce the ratio of jury waivers and thereby add to the number of cases requiring jury trial.⁷ Separation might increase the proportion of hung juries, and necessitate more retrials. Finally, it might simply require more time of juries overall, since in some cases there would be two deliberations. The crucial question for this study was, therefore, not so much whether but rather *how much* time would be saved by the separation of issues.

Because our inquiry was set up only shortly before the adoption of the separation rule, we were unable to acquire data on the period before the rule which we should have wished to have in order to compare the operations of the court before and after the separation rule was introduced. Instead, for our prior control period we had to rely for information on data routinely collected by the statistical branch of the Administrative Office of the United States Courts. The ideal research design would have combined such a prior observation period with a selection by chance of the cases to which the separation rule would be applied. Specifically, one might have subjected every three successive cases filed to a sort of lottery: in the case drawn first, separation would be required; in the second, separation would not be allowed; in the third case, separation would be left to the judge's discretion. These groups of three would be assigned in rotation, giving each judge an equal number of cases of each variant. After final disposition, the separated, the regular, and the cases where separation was discretionary would be compared and measured against the period that preceded the introduction of the rule. But this division of cases was of course not feasible for a variety of good reasons.⁸ Instead, all that could be done was to keep a careful record of the court's actions in each case from assignment to final disposition, both for cases in which there was separation and for the regular trials. We had no influence and of course did not attempt to exert any influence on the choice of cases in which the

⁷ The New York experience showed that roughly 40% less time is used up in a bench trial. DELAY 81.

⁸ Cf. *The Case for the Official Experiment*, DELAY 241-50; Zeisel, *The New York Expert Testimony Project: Some Reflections on Legal Experiments*, 8 STAN. L. REV. 730, 741-48 (1956).

issues were separated. Each judge applied the broad discretion conferred on him by the rule according to his own understanding of its suitability for the case at hand.

I

To begin the analysis, then, we present a synopsis of the civil cases tried before the court. Table 1 gives the proportion of cases tried under the separation rule in each category. The table shows that the relative frequency of such trials varies greatly with the type of action. Two categories show no separation whatsoever: admiralty cases and tort cases other than personal injury claims. The greatest use of separation was made in personal injury trials: here 37 per cent of the jury cases and 27 per cent of the bench trials were tried under the separation rule. Separation was ordered

TABLE 1
RELATIVE FREQUENCY OF SEPARATED TRIALS BY TYPE OF CASE ^a

		Regular Trials	Separated Trials		
		Number	Number	Percentage of Total	TOTAL
Personal Injury: ^b	Jury	117	69	37%	186
	Nonjury	22	8	27%	30
					216
Other Tort:	Jury	10	..	..	10
	Nonjury	4	..	..	4
					14
Contract:	Jury	19	6	24%	25
	Nonjury	17	2	11%	19
					44
Federal Tort					
Claims Act:	Nonjury	10	4	29%	14
					14
Admiralty:	Jury	1	..	..	1
	Nonjury	6	..	..	6
					7
Other:	Jury	8	..	..	8
	Nonjury	34	4	11%	38
					46
TOTAL:	Jury	155	75	33%	230
	Nonjury	93	18	16%	111
		248	93	27%	341

^a For the two-year period after introduction of rule 21 (1960-1961).

^b Includes 16 jury and 6 nonjury FELA cases, of which one jury trial was separated.

in only one out of twenty-two FELA cases but in 29 per cent of the fourteen Federal Tort Claims Act cases. These frequencies forced us to limit our inquiry to personal injury cases: only this category provided a sufficiently large group of separated (69) and regular (117) trials to offer an adequate basis for statistical comparison. It would be improper to compare, for instance, separated tort cases with nonseparated contract cases, since the validity of any comparison requires that the cases be kept as homogeneous as possible. Strictly speaking, therefore, conclusions of the study will apply only to personal injury jury cases, but within reason they should prove applicable also to other types of cases.

Table 2 proceeds to the comparison of separated and regular personal injury trials. The 186 trials by jury during the observation period are divided by the stage at which they terminated. We distinguish four stages for the separated trials and four roughly parallel stages for the regular trials. The midpoint for the regular trial comes at the end of the plaintiff's case; for the separated trial, at the end of the liability trial.

TABLE 2
STAGES OF DISPOSITION AND TIME REQUIRED TO REACH THEM ^a

Separated Trials			Regular Trials		
Stage of Disposition	Days	Per Cent	Stage of Disposition	Days	Per Cent
During Liability Trial	1.9	19%	During Plaintiff's Case	2.0	18%
At End of Liability Trial	3.2	62%	At End of Plaintiff's Case	3.3	4%
During Damage Trial	3.6	4%	During Defendant's Case	..	..
After Full Trial	4.0	15%	After Full Trial	4.7	78%
Average All Cases	3.1	100%	Average All Cases	4.2	100%
Number of Cases	(69)		Number of Cases	(117)	

^a Personal injury jury trials. Only court time is considered; deliberation time is not included. Figures in the "Days" column are averages for cases disposed of at the stage indicated.

It was, to repeat, the expectation of those who favored the new rule that many separated trials would end after the liability verdict, thus making the damage trial unnecessary. As can be seen, Table 2 vividly confirms this expectation: fully 78 per cent of the regular trials, but only 15 per cent of the separated trials, go through their full course. And since many more regular trials run their full course than do separated trials, it must be expected

that the average trial time for each is quite different. The figures for trial time in Table 2 bear this out, showing that the average regular trial lasts 4.2 days, the separated trial, 3.1 days — a time difference of 26 per cent. It would be tempting to read this figure as the looked-for measure of the time saved by separation. Unfortunately, it cannot be accepted at face value because, standing by itself, this comparison of the separated and the regular trials could be quite misleading.

II

At this point we ask for the reader's indulgence during a somewhat complicated methodological excursion that will, we trust, make clear why without further investigation we cannot trust the comparison made by Table 2. The precise question is this: Were the cases selected for separated trial and the cases left for regular trial substantially similar except for the fact of separation? If they were, we may attribute the observed difference to the fact of separation. But if they were not, we are in trouble. It is the same methodological problem that came to the fore in the now famous debate over whether smoking shortens our life expectancy. The average age at which smokers die is lower than that of non-smokers, just as the average separated trial is shorter than the average nonseparated one. Does such a statistic prove that smoking shortens life, or that separation shortens trial time? Suppose it is the man who is less healthy to begin with who takes up smoking. We would then falsely attribute to smoking the effect of shortening our lifetime, when in fact the average smoker had a shorter life expectancy even before he began smoking. Similarly, one may find that deaths are more likely to occur in the near future in families recently visited by physicians than in those unattended. Obviously it is not the doctor, but the preexisting situation that calls for a doctor, which causes the higher mortality rate. A similar difficulty may apply to the figures in Table 2: cases selected for separate trial might be different to begin with. If that difference is itself related to the time saving we want measured, then we no longer know to what extent the apparent time saving was due to differences other than separation. That was why our ideal research design specified selection by lot — by avoiding purposeful selections we could avoid the possibility of selections on some basis which might have a bearing on trial time.

Were our separated trials selected in any way that could lessen

the validity of the comparison in Table 2? We know that there was purposeful selection by the judges. Though we do not know the basis for their selection, a few statistics give us warning. From Table 2, we see that the average separated trial which actually went to the jury on the damage question took 4.0 days; but it took considerably longer — 4.7 days — to try the regular cases that ran their full course.⁹ There is thus some indication, though no proof, that the cases differ by selection. There is no proof, because the figure for separated trials is based on only a small fraction of cases that go the full course; the potentially longer cases might well have been disposed of during trial. On this view the difference would disappear if all trials were full trials.

Further, the figures in Table 3 suggest that the two groups of cases were not selected at random. Only 34 per cent of the regular trials ended in favor of the defendant, in contrast to 56 per cent of the separated trials — a figure far above the average.¹⁰ Note too that the proportion of directed verdicts is larger in the separated group. Finally, there is evidence that the regular trials left over after some cases have been removed for separated trials differ as a group from the run of regular trials before civil rule 21, when no cases were separated. Statistics supplied us by the statistical branch of the Administrative Office of the United States Courts indicate that of the 196 personal injury jury trials conducted in this court during the two years prior to the introduction

TABLE 3
OUTCOME AND MODE OF TERMINATION OF SEPARATED AND
REGULAR TRIALS ^a

Mode of Termination	Separated Trials Per Cent	Regular Trials Per Cent
Settlement	32	24
Jury Verdict for Plaintiff	12	42
Total in Favor of Plaintiff	44	66
Jury Verdict for Defendant	43	31
Directed Verdict for Defendant	13	3
Total in Favor of Defendant	56	34
Number of Trials	(69)	(117)

^a Personal injury jury trials.

⁹ The trial times for the regular cases are somewhat high compared with statistics available from other courts, but there are no grounds for suspecting that this should restrict the validity of our findings. We are concerned only with the relative trial time of separated and regular trials, and this relation should not be affected by the generally longer trial time.

¹⁰ See note 6 *supra*.

of rule 21, only 62 per cent of the cases went to a jury verdict, as against 73 per cent¹¹ of the regular trials after rule 21. This is another suggestion that judges might have been more likely to order separate trial for those cases which held a promise of not going through a full trial.

III

So much for the potential infirmities of the data in Table 2. Do our data permit us to move the analysis to more secure ground? Table 4 will show the proportion of personal injury jury trials tried by each judge under the separation rule: the ratio varies from 89 per cent for Judge *A* down to zero for Judges *K* and *L*. Though this varying use seems at first blush unfortunate, it is this very variation which will help to solve the problem. For clarification, we return to the smoking analogy. Just as we could not dictate when judges were to use split-trial procedure, we could not select youngsters at random, ordering one group to smoke and another not to. But we can expose one random group of smokers to "stop-smoking" propaganda and keep another random group of smokers as a control group, unexposed to this propaganda. We could then compare the longevity of the "exposed" group with that of the control group. Any difference could be attributed to the "stop-smoking" campaign.

Let us try to see more precisely how this analytical procedure bypasses the difficulty that the decision to stop smoking will not be made at random, but more likely by persons who are in some way special with respect to smoking and with respect to health in general. The point is that in this design we neither know nor need to know how the self-selection works.

Let us assume the worst possible case from the point of view of selection bias: suppose the only smokers who respond to the stop-smoking campaign were those who started smoking only recently and who are at the same time particularly health conscious. Let us assume also that it is only their lengthened life span which would cause the average life span of the exposed group to increase. Even this extreme self-selection would in no way affect the validity of the proposition that reduced smoking increases life expectancy. The reason we would not be concerned with this self-selection is that we know that in the control group, too, there would be these health-conscious smokers who only recently began to smoke, in about the same proportion as they occurred in the

¹¹ Table 3, second column: $42 \div 31 = 73$.

experimental group. And we should not care if some of the control group stopped smoking on their own, without exposure to the propaganda. For it is quite sufficient to know that, whatever the control group does, the experimental group also does, in addition to the experimental group's reaction to the stop-smoking campaign.

Now instead of two groups of smokers, let us take two groups of trials, one conducted by Judge *X* who separates some of his trials, and one by Judge *Y* who separates none. Since the court assigns cases at random, the two groups of trials will be comparable. The only differences between the groups will be that there was separation in one but not in the other, and conceivably the differing expeditiousness of Judges *X* and *Y*. If the latter factor is discounted, and if the average trial length in the group of cases where separation sometimes occurred is below that of the cases where it was not available, we are justified in ascribing this difference to the separation. One would then expect Judges *K* and *L*, who held no separate trials, to show a higher average length of all their trials than Judge *A*, who separated in 89 per cent of his trials. In reality, of course, there are not two judges, but several judges, each having a different propensity to separate. We should, therefore, expect this proposition to hold true: the larger the proportion of separated trials for the particular judge,

TABLE 4
SEPARATION RATIO AND AVERAGE TRIAL TIME
IN PERSONAL INJURY JURY TRIALS

Judge	Proportion of Cases Tried Under Rule 21 (Per Cent)	Average Length of All Trials Before This Judge (Days)	Number of Trials Before This Judge
<i>A</i> ^a	89	3.2	(26)
<i>B</i>	51	3.3	(41)
<i>C</i>	50	2.3	(10)
<i>D</i>	38	3.5	(26)
<i>E</i>	29	6.1	(7)
<i>F</i>	20	5.6	(5)
<i>G</i>	17	4.2	(6)
<i>H</i>	14	3.8	(22)
<i>I</i>	7	3.9	(27)
<i>J</i>	7	4.3	(14)
<i>K</i>	0	4.5	(1)
<i>L</i>	0	4.5	(1)

^a It might be relevant to reveal that Judge *A* was not Judge Miner, the proponent of the rule.

the shorter the average length of all his trials. In our case, we should expect Judges *A* and *B*, who have the highest separation rates, to show lower average trial lengths for all their trials than Judges *I*, *J*, *K*, and *L*. Table 4 presents the pertinent statistics. It is as we expected: as the separation ratio increases, the average trial length decreases. The exact nature of this relationship becomes even clearer if we put Table 4 into graph form as in Table 5.

TABLE 5
PER CENT SEPARATION AND TRIAL TIME

^a In all personal injury jury trials, whether separated or not.

^b Judges are identified by letter as they appear in Table 4.

Generally, Table 5 shows a band of dots sloping downward toward the right-hand borderline and thus confirms our expectation that the average trial length decreases as the proportion of separate trials per judge increases. As will be noted, the individual points representing the various judges are far from forming one line which would represent the relationship between separation

and trial length; they show great individual differences. These differences derive from two causes. First, from the fact that some judges will try their cases more expeditiously than others; if so, their "points" will lie somewhat lower than they would if they tried their cases at average speed. Second, from the fact that, although cases are assigned to the judges at random, some judges will be assigned more time-consuming cases than others. The distorting effects of both these factors are automatically reduced to the extent that the number of judges (points) grows, so that the "slower" and "faster" ones balance each other — provided that there is no consistent correlation between "fast" judges and their propensity to separate.¹² The distorting factors are also reduced to the extent to which the individual judges have more cases and hence are likely to have on balance the same average assortment of long and short cases. In line with this reasoning, we will disregard all judges who had less than fifteen cases. If we then look at the five remaining Judges, *I*, *H*, *D*, *B*, and *A*, we find them to fall nicely about the straight line we have drawn in Table 5.¹³ The two crucial points along this line are its beginning and its end. It begins (at separation zero) with 3.8 days and ends at the right-hand margin (separation 100 per cent) at 3.0 days. This line, the much-looked-for unbiased estimate, suggests that if the court had tried all its personal injury jury cases under the separation rule, it would have saved 0.8 days out of 3.8 days, or 21 per cent of the total trial time.

IV

An additional table provides further insights into the means by which time is saved through the separation process: Table 6 compares the stage and mode of termination of regular and separated trials. The figures from Table 2, telling us at what stage the cases terminate, form the right-hand margin column of Table 6; those from Table 3, mode of disposition, form the last lines for regular and separated trials.

¹² There is, in fact, no assurance that such a correlation does not exist. A sufficient number of nonjury trials for each judge, or adequate statistics on his trial time prior to rule 21, might provide a clue. In this important respect, then, this analysis deviates from a controlled experiment with its concomitant reassurance that no systematic bias interfered with the result.

¹³ If the line were based on all 12 judges, irrespective of their number of trials, it would show a somewhat steeper slope; that line would signify greater potential savings than the present one. The context of this analysis, however, gives us good reason to believe that the present line is likely to be closer to the "true line" that would emerge from a controlled experiment.

TABLE 6

STAGE AND MODE OF DISPOSITION OF PERSONAL INJURY JURY TRIALS

Stage of Termination	Settled	Verdict for Defendant		Jury Verdict for Plaintiff on Liability and Damages	TOTAL
		Directed Verdict	Jury Verdict		
A. Regular Trials					
During Plaintiff's Case	18%	..	..	..	18%
At End of Plaintiff's Case	3%	1%	..	..	4%
During Defendant's Case	..	..	..	..	..
After Full Trial	3%	2%	31%	42%	78%
Total	24%	3%	31%	42%	100% ^a
B. Separated Trials					
During Liability Trial	10% ^c	9%	..	..	19%
At End of Liability Trial	15% ^d	4%	43%	..	62%
During Damage Trial	4% ^d	..	..	..	4%
After Full Damage Trial	3% ^d	..	..	12%	15%
Total	32%	13%	43%	12%	100% ^b

^a 117 trials.^b 69 trials.^c Settled before jury returned any verdict.

^d Settled after jury verdict affirming liability but before jury returned verdict on damages. These cases, totaling 22 per cent (15 + 4 + 3), represent those in which the jury found for the plaintiff on liability but never deliberated on the question of damages.

If we look first at regular trials, we see that 18 per cent of all regular trials were terminated through settlement during the plaintiff's case, and that settlement at a later stage is much less frequent. Then we turn to the figures for separated trials. Here we see confirmed our hypothesis that the bulk of cases disposed of at the end of the liability trial terminate in a verdict denying liability: of the 62 per cent terminating at that point, 47 or roughly three-fourths, end with verdicts for the defendant. But the unexpected element concerns those cases in which the jury finds for the plaintiff on the issue of liability. We find an increased willingness on the part of defendants to settle once they have lost the liability issue. Fifteen per cent of all trials end through settlement after the jury affirms liability, another 4 per cent are settled

during the damage trial, and 3 per cent at the end of the damage trial. Thus, of the ($15 + 4 + 3 + 12 =$) 34 per cent of all cases where the jury finds for the plaintiff, only 19 per cent reach a trial on the damage issue and only 12 per cent, or about one-third, reach a second jury verdict. In short, separation may save trial time, not only in cases ending in defendants' verdicts but in cases resulting in plaintiffs' verdicts as well. Once liability is affirmed these cases too are very likely to be settled and, hence, will benefit from separation of the issues.

These figures explain why it would be so difficult to predict at the time of separation which cases are likely to benefit from it. A prediction that the case is likely to end for the defendant is not enough, because the cases that go for the plaintiff on liability also are likely to benefit from separation. To select effectively, the judge would have to be able to identify in advance the two groups of cases that will *not* benefit from separation. These are (1) the 15 per cent of cases which go through a full trial despite separation, and (2) those cases whose early termination, though after the liability trial, cannot be credited to separation, since they would have ended prematurely through settlement or directed verdict even if they had been tried regularly. The first two figures in the right-hand column of Table 6, adding up to ($18 + 4 =$) 22 per cent, are a measure of the frequency of these cases. We now appreciate why Tables 2 and 5 come out so similarly. The "purposeful" selection by the judge is, at least with respect to the expected time saving, not too different from a selection by lottery.

V

Now we may consider a third approach to the problem of estimating how much time is saved by the separation procedure. It is clear that the entire time saving comes from avoiding the litigation of damages, either in cases where liability is rejected, or in cases which are settled after liability is affirmed. We can then roughly estimate the time saved if we know three items: The proportion of trials that go their full course to verdict if separation is not available, the proportion of separated trials that go the full course to a second verdict, and the share which litigation of damages constitutes of the total litigation time in a full trial. We know the first percentage to be 62 per cent;¹⁴ from Table 6 we

¹⁴ According to data furnished us by the Administrative Office of the United States Courts, in the two-year period prior to the introduction of civil rule 21, 62% of personal injury jury trials went to a jury verdict.

learned that only 12 per cent¹⁵ of the separated trials went to a second verdict. This means that separation causes about $(62 - 12 =)$ 50 per cent of the trials to terminate without running their full course. As to the share of total litigation time devoted to the damage issue, we must rely on expert estimates, although theoretically one could produce an actual time count on a representative sample of trials. Conversations with judges and lawyers have led us to conclude that on the average the damage issue constitutes at the most 40 per cent of the total trial time. Armed with these figures, we can perform the following computation: If each of the roughly 50 per cent of the cases in which litigation of damages is avoided involves a saving of 40 per cent of trial time, then the saving from separation would amount to 20 per cent of the total trial time. This result, in spite of the roughness of its basis, is close enough to our other findings to permit now the firm generalization that in personal injury jury trials *separation saves trial time of the magnitude of about 20 per cent.*

VI

An important limitation should now be noted on the amount of time which courts may actually save through the separation device. All calculations so far are based on the assumption that *all* cases would be tried under the separation rule. But, as Table 1 indicated, in this court only 37 per cent of the personal injury trials are separated, and hence the time saved thereby is not 20 per cent but only 37 per cent of this 20 per cent, that is $(.37 \times 20 =)$ 7.4 per cent of the total trial time. We also know, however, from Table 4, that this average of 37 per cent is not the same for all judges. We know from conferences with Judge A, who had 89 per cent of his trials separated, that he ordered separation as a matter of routine, unless cause was shown as to why separation should not be ordered. Judges I and J, on the other hand, apparently proceeded with regular trials unless a special reason was advanced for ordering separation. We would conclude, therefore, that 10 per cent is a good enough estimate of the proportion of cases which, under the most liberal application of

¹⁵ In addition, 3% of the separated cases were settled after a full trial. We do not include these cases in the figure for trials which had run their full course, however, since the figure for regular trials does not include cases which ended in a settlement or directed verdict after the defendant's case, and we wish to have the figures as comparable as possible. There remains of course the difficulty that the actually separated trials do not behave necessarily like trials selected at random for separation. But this error is likely to be small enough to be ignored here.

the separation rule, would be left to the regular mode of trial. And, consequently, we conclude that if the separation rule were applied liberally the overall time saving would not reach 20 per cent but only $(.90 \times 20 =)$ 18 per cent.

VII

With this we reach the end of our efforts to measure the amount of trial time saved through separation. The remainder of this essay is concerned with factors that could conceivably operate in the opposite direction, increasing the court's burden of trial time.¹⁶ The most obvious one might be that the amount of time needed for the jury's deliberation in separated cases — where the jury may deliberate twice — may be greater than in regular trials. Second, separation could conceivably reduce the number of jury waivers, increasing the proportion of the more time-consuming

¹⁶ Before proceeding, it is necessary to report on two minor housekeeping details. One concerns the court's use of impartial medical experts; the other, our treatment of 13 cases in which only the damage issue was tried because liability was stipulated.

At the time the separation rule was introduced the court put into effect another innovation. The judges in their discretion were enabled to appoint an impartial medical expert if the adversary experts were too far apart. Since it could be argued that such experts could affect trial time and, hence, our analysis, we give herewith the relevant data. They carry the strong suggestion that these experts, whatever their effect, did not distort our analysis of trial separation. Fourteen per cent of the separated trials, and 8 per cent of the regular trials, had such experts. The average length of these trials was 2.5 days for the separated and 5.3 for the regular trials. There is thus no significant deviation from the general pattern. In any event, as we have pointed out elsewhere, the primary effect of the impartial expert is likely to be his increasing the likelihood of settlement *before* trial. DELAY 122-24.

Concerning the 13 cases with stipulated liability, the question had to be answered as to whether these stipulations would have taken place if the separation rule had not existed. Defense counsel might have simply preferred not to let the jury know just how negligent his client had been. For purposes of our statistics we treated the cases as follows: If the judge separated the issues, we assumed that admission of liability was in response to the separation order. Out of the 13 cases where liability was admitted, 3 fell into this category. The remaining 10 cases were counted among the regular trials, under the assumption that here liability would have been admitted even if the case had reached trial prior to the adoption of the separation rule. This treatment probably concedes less influence to the separation rule than it deserves. The 10 cases, treated as regular trials, represent $(10 \text{ out of } 117 =)$ 9% of all regular trials. Although we have no statistics on such cases for the time prior to the rule's adoption, it seems unlikely — and the judges have confirmed this in their conferences with us — that this percentage was as high as that. We probably err, therefore, by crediting only 3 cases of admitted liability to the separation rule. This error will tend to make the average trial time for regular cases shorter, and for the separated case longer, than it actually was; hence, it probably causes us to underestimate the savings attributable to separation.

trials before juries.¹⁷ Third, separation might increase the number of hung juries, and hence the number of cases that have to be tried twice.¹⁸ Fourth, separation might reduce the proportion of cases settled prior to trial,¹⁹ and thereby increase the number of cases that need to be tried. The suspicion that separation of issues may lead to an overall slackening of trial speed has already been laid to rest, especially by Table 2, which showed that the separated trials that go to two verdicts do not last longer than full regular trials. We turn now to the investigation of the possible offsets enumerated above.

A. Increased Time for Jury Deliberation?

The first point is, in any event, one of relatively minor importance, since jury deliberation time is not necessarily court time. Nevertheless, it will be of interest to see the pertinent figures in the following table.

TABLE 7
AVERAGE JURY DELIBERATION TIME AND FREQUENCY

	Deliberation Time	×	Per Cent of Trials in Which Jury Deliberated	=	Weighted Average
Separated Trials					
Liability Issue	2.7 hours ^a		71%		1.92 hours
Damage Issue	3.4 hours		12%		0.41 hours
Total					<u>2.33 hours</u>
Regular Trials					
Both Issues	3.7 hours		73%		2.70 hours

^a This is the average figure for all trials. In trials where the jury actually deliberated twice, it took only 2.2 hours for the jury to affirm liability.

Thus we see that the jury in separated trials, if it deliberates twice, spends an average of $(3.4 + 2.2 =) 5.6$ hours in the jury room as against an average of only 3.7 hours in regular trials. This could be an offset, except that in only 12 per cent of the separated trials the jury was called upon to deliberate twice.²⁰ The last column of the table takes into account the frequency of deliberation, giving an average deliberation time for all cases, including those

¹⁷ See Weinstein, *Routine Bifurcation of Jury Negligence Trials: An Example of the Questionable Use of Rule Making Power*, 14 VAND. L. REV. 831, 851 (1961).

¹⁸ See 74 HARV. L. REV. 781, 782 (1961).

¹⁹ See Weinstein, *supra* note 17, at 850.

²⁰ See Table 6, p. 1617 *supra*.

in which the jury deliberated only once or not at all. With deliberation time thus weighted, the effect of separation is favorable rather than unfavorable; the table reveals that the jury spends on the average 0.37 hours, or about 22 minutes, less deliberation time in the average separated trial.

B. Decreasing Frequency of Jury Waivers?

On the second point, the frequency of jury waivers, the evidence is equally reassuring. There is no ground for believing that the proportion of demands for juries increases under the separation rule; in fact the evidence seems to point the other way, though the difference is negligible. During the two-year period before separation, juries were used in 90 per cent of all personal injury cases;²¹ during the corresponding period after separation, in only 86 per cent.²² Furthermore, if separation were to reduce jury waivers, one would expect the judges who are more likely to order separation to show a lower incidence of jury waivers. But Table 8, which presents the relevant data, shows no evidence to this effect.

TABLE 8
SEPARATION RATIO AND JURY WAIVER IN
PERSONAL INJURY TRIALS

Judge	Per Cent of Cases Tried Under Rule 21 ^a	Per Cent Waiver ^a	Number of Trials Before This Judge ^a
A	82	21	(33)
B	53	9	(45)
C	45	9	(11)
D	36	16	(31)
E	29	0	(7)
F	17	17	(6)
G	14	14	(7)
H	11	18	(27)
I	6	18	(33)
J	7	0	(14)
K	0	0	(1)
L	0	0	(1)

^a These separation ratios differ from those in Table 4 because they are based on all trials conducted by this judge, not only on his jury trials.

C. Increase in Hung Juries?

As to the third possible offset against the savings achieved in trial time, a possible increase in the number of hung juries, they

²¹ Statistics supplied by the Administrative Office of the United States Courts.

²² From Table 1, p. 1609 *supra*; 186 is 86% of 216.

are as rare an event now as they were prior to the new rule.²³ But even without such specific evidence it would seem unlikely that any major offset could be expected from this source. Even if the ordinary 3 per cent rate of mistrials had been doubled under the new rule (which it was not), the offsetting loss of trial time would be only about 1.5 per cent, since a hung jury is a total loss only in about half of all instances; in the other half the litigants take the jury's hint and settle, so that there is no need for a retrial.

D. Decrease in Settlement Ratio?

On the fourth issue, the settlement ratio, the evidence is given in Table 9, which shows that the proportion of cases reaching trial has not changed at all.

TABLE 9
SETTLEMENT RATIO IN JURY CASES BEFORE AND AFTER RULE 21

	Two-Year Period Before Separation		Two-Year Period With Separation	
	Number	Per Cent	Number	Per Cent
Disposed Before Trial	1218	84.9%	1217	84.9%
Reached Trial	217	15.1%	216	15.1%
Total Personal Injury Jury Cases Filed	1435	100.0%	1433	100.0%

That the separation rule is not likely to affect the settlement ratio can also be appreciated on a priori grounds. The likelihood that parties will settle is not a function of the relative strengths of their positions, but rather of the clarity with which each sees the other's position, since a settlement arises when each party can weigh the other's chances and agree with him on what those chances are. Whatever possible difference the rule could make to the verdict expectation of the litigants, there is no reason to believe that such a difference would be more visible to one side than to the other. We should expect, therefore, that any possible difference would leave the litigants as likely, or as unlikely, to settle as they had been before.²⁴

²³ Unfortunately there are no precise court statistics available on the frequency of hung juries. But our inquiries with both judges and clerks yielded complete consensus on the insignificance of hung juries in this context.

²⁴ Compare the analysis of an analogous problem: *Interest From the Day of Accident*, DELAY 128-40.

VIII

Although our inquiry has taken us far afield and into several side forays, the task has been a narrow one — to measure the effect of separation of issues on the court's trial load. This then is a summary of our findings:

Separation of issues will save, on the average, about 20 per cent of the time that would be required if these cases were tried under traditional rules. This saving derives from the fact that in many cases separation makes the litigation of damages unnecessary. This group includes all cases in which liability is denied, but also the majority of cases in which liability is affirmed, because two out of three of these cases are likely to be settled without trial of the damage issue. There is no evidence that this saving is offset by a change in the settlement ratio prior to trial, in the frequency of jury waivers, or in the proportion of hung juries, any one of which factors — if affected — could increase the court's trial load.

It is not possible to sort out effectively in advance the cases in which separation would prove futile. Therefore, if a court wants to realize the maximum of potential time saving through separation, it should separate as frequently as possible. The time saved will be in direct proportion to the frequency of separations. Such a policy recommends itself also on the ground that separation is unlikely ever to *add* substantial trial time even if cases should go, as some do, to a second verdict. If a court were to follow Judge A's example and order separation routinely unless cause is shown to the contrary, it could expect separation in about 90 per cent of all cases. On this level of separation the overall saving could be expected to amount to roughly 18 per cent of the court's trial time.

Viewed superficially, the route which took us to this result might seem overlong. Yet such is the nature of the social sciences that, short of a controlled experiment, all their evidence is imperfect; only through a variety of converging approaches can one hope to reach safe ground.²⁵ But from our investigation we have learned that separation is a powerful remedy for court congestion. Fully used, it would be equivalent to increasing the number of judges trying those cases by one-fifth. Cases which, if not separated, will require five judges for their disposition will, if separated, require only four judges and free one for other work.

The introduction of the separation rule, as we had occasion to

²⁵ Cf. Zeisel, *Social Research on the Law: The Ideal and the Practical*, in *LAW AND SOCIOLOGY* 124-43 (Evan ed. 1962), especially p. 126.

observe, raised other questions beyond its efficacy as a delay remedy. These questions concern the possible effect of separation on the substance of the jury verdicts. By depriving the jury of its joint verdict, it is argued, subtle influences operate to affect the verdict, and should therefore be included in an overall appraisal of the rule. We are now in the process of collecting data which might have a bearing on this problem; if findings prove significant, they will appear in a subsequent report.