SIZE OF LOSS DISTRIBUTIONS IN WORKMEN'S COMPENSATION INSURANCE

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This paper was generated in the belief that publication of statistical data setting forth actual distributions of incurred loss amounts by size of loss would be of general interest, and that such data should be made freely available for whatever immediate purpose or use might be made of it by others. In the field of workmen's compensation insurance, there have been relatively few papers presented to our Society concerned specifically with size of loss distributions. Furthermore, such information as has been presented has not dealt with the several different type of injury categories separately.

In addition to simply aggregating masses of data to form empirical size of loss distributions which may then be used in the context of a particular problem area, we are often concerned to try to go beyond the observed distribution and to ask questions about the theoretical distribution underlying the specific data.

As an illustration of this, take for example, the determination of the Non-Serious "D" ratio, one of the steps involved in arriving at the rating values of the Workmen's Compensation Experience Rating Plan. Briefly stated, the procedure is to array the Non-Serious claims for a recent experience period by size, discount them according to the multi-split principle or its equivalent, and then compare the aggregate discounted losses with the aggregate undiscounted losses. This process is usually repeated each year in connection with, and as part of, a normal annual workmen's compensation revision. The Non-Serious "D" ratio used in a particular year is thus an empirical figure. The reason for doing this calculation each year is, obviously, to keep the rating values of the Experience Rating Plan on as up-to-date a basis as possible, so that there will be a correspondence between the Actual Primary (i.e., discounted) Losses and the Expected Primary Losses used in the calculation of experience rating modifications.

If, as is reasonable, we consider that the observed distribution represents the "true" distribution coupled with the effects of a random "disturbance" term, then simply using an empirically derived "D" ratio as our estimate has introduced some error into our calculations. If we had suitable information about the underlying distribution, the possibility of improving our estimates would be strengthened.

The foregoing is merely an illustration of one kind of situation which might engender an interest in size of loss distributions and is typical of the kind of problem area in which our objective is knowledge about size of loss distributions in and for themselves. There is, however, another broad area of concern in which our main objective is knowledge about the distribution of the total amount of claims during a time interval. Here the size of loss distribution is a component element to be considered in conjunction with the claim frequency distribution.[1] One of the main reasons that investigations in this area, generally referred to as the mathematical theory of risk, have not been pursued on other than a very formal and abstract basis, has been the lack of readily available information with respect to the distribution of loss size.

The balance of this paper is divided into three sections. First, we describe the data and set forth the observed distributions. Secondly, we consider the question of fitting a curve to the observed distributions, with specific attention, in the case of Permanent Disability and Temporary, to the log-normal curve. Finally, there are a few summary remarks and comments.

THE DATA[2]

The basic data for this paper is the standard coverage California experience of all companies authorized to write workmen's compensation insurance in California for Policy Years 1960 and 1961, as reported under the Unit Statistical Plan.[3]

California's Statistical Plan is basically similar to that of the National Council on Compensation Insurance, and in common with that Plan, provides for identifying each claim as coming under one of the following type of injury categories: Death, Permanent Total, Major Permanent Partial, Minor Permanent Partial, Temporary, or Medical Only. Further, the Plan

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[1] The general form of the cumulative distribution function, $F(y,t)$, of the total amount of claims during a time interval of length t, is given by:

$$F(y,t) = \sum_{0}^{\infty} p_n(t) \cdot G_n(y)$$

where $p_n(t)$ is the probability of the occurrence of n claims;
$G(y)$ is the cumulative size of loss distribution; and
$G_n(y)$ is the n-fold convolution of $G(y)$ with itself.

[2] Although the analysis, procedures and discussions of the paper are based on data reported to the California Inspection Rating Bureau, the manner in which such data has been utilized and any opinions expressed herein are those of the writer and should not be taken to reflect the position of the Bureau, its Members, or its Committees.

[3] It should be noted that U.S. L & H experience and pneumonoconiosis claims under a classification which is subject to a pneumonoconiosis surcharge are not included in the basic data of the paper.

requires the separate listing of each claim, except that a carrier is permitted to group together (by Manual classification) all closed Medical Only claims on which the incurred medical cost is $500 or less. While the Statistical Plan provides for a first, second and third reporting of experience, the manner in which such second and third report data are filed and processed does not, at present, allow for the tabulation of size of loss data on a second or third report basis. Accordingly, the data used here, for both Policy Year 1960 and Policy Year 1961, is on a first report basis, i.e., the losses are valued as of 18 months after the inception date of the policy.

In general the incurred loss for a Death or Permanent Disability case will include Temporary indemnity benefit amounts as well as the amounts arising out of the Death or Permanent Disability rating itself. Also, the size of the incurred losses, as used in this paper, represents the indemnity and medical amounts combined.

Because not all Medical Only claims are individually listed on the Unit Reports, it was not possible to obtain size of loss distributions for this particular type of injury. That is, this paper deals only with claims involving some form of indemnity benefit.

However, it may be of interest to note the corresponding total number and total amount of Medical Only claims. For Policy Year 1960 there were 639,612 Medical Only claims with a total incurred loss amount of $16,160,673; for Policy Year 1961 there were 583,184 claims and a total incurred loss amount of $16,456,429.

The observed size of loss distributions are set forth in Exhibits 1 through 10, as indicated below:

Policy Year	Type of Injury	Exhibit Number
1960	Death	1
1961	Death	2
1960	Permanent Total	3
1961	Permanent Total	4
1960	Major Permanent Partial	5
1961	Major Permanent Partial	6
1960	Minor Permanent Partial	7
1961	Minor Permanent Partial	8
1960	Temporary	9
1961	Temporary	10

Each exhibit shows, for each given incurred loss size interval, the actual average loss size as well as the number of claims within the interval. (Because of the relatively small number of Permanent Total claims in a year, Exhibits 3 and 4 simply list each claim individually.) A column showing relative frequencies has not been included in these exhibits because they are more usefully displayed in the subsequent exhibits.

THEORETICAL SIZE OF LOSS DISTRIBUTIONS

Death Cases: Even a quite casual comparison of the data for the Death cases given in Exhibits 1 and 2 with the data for the other type of injury categories will reveal that the form of the distribution for Death cases is quite different from the form of the other distributions. Accordingly, the procedure followed with respect to the Death type of case was not that which was used for the Permanent Disability and Temporary categories.

Simple histograms were constructed for the Policy Year 1960 and 1961 Death cases, as shown on Exhibits 11 and 12. The three peaks appearing on each of these exhibits reflect the provisions of the California Labor Code with respect to Death benefits. The Labor Code provides that there shall be benefits as follows:

a. Burial expenses, up to $600; and
b. a death benefit to be allowed to the dependents when the employee leaves any person dependent upon him for support; in the case of total dependency, the benefit is $17,500, except that in the case of a surviving widow and one or more dependent minor children it is $20,500.

The three peaks are thus seen to correspond to: the no-dependency death case; total dependency other than widow and children; total dependency, widow and children. The variation about these three specific benefit amounts arises out of several causes, among which are: variation in the amount of temporary indemnity; variation in the amount of medical; partial dependency; compromised cases.

Permanent Disability (Total, Major, Minor) and Temporary Cases: In contrast to the tri-modal distribution of Death cases, the Permanent Disability and Temporary cases exhibit distributions which accord much more nearly with simple probability distributions. That is, histograms for the observed Permanent Disability and Temporary distributions would show that they are uni-modal, have a relatively much wider range, have a "cocked-hat" shape, and are skewed to the right.

The reason for this difference in the nature of the distributions for the Death cases on the one hand, and for the Permanent Disability and Temporary cases on the other, lies in the fact that there are a much larger number of significant variables interacting with each other in the Permanent and Temporary Disability cases as against the situation in the Death cases where the dependency status variable is the prime determinative.

Previous studies on size of loss distributions for lines of insurance other than workmen's compensation have indicated that "for a quite diverse variety of types of insurance, the log-normal curve is a reasonably good fit."[4] Coupled with this as a reason for focussing on the log-normal curve as being the possible theoretical distribution underlying the data, is the fact that the log-normal curve is easy to handle in numerical work. Other possibilities are referred to in the cited article by Dickerson et al.

In deciding whether or not the log-normal curve provides a good theoretical description of the observed data, several (related) approaches can be used. The techniques can conveniently be referred to as being the visual, the tabular and the analytical method, respectively.

Since each of these techniques was used with each of the remaining type of injury categories, a brief description of these approaches is given next, reserving the discussion of specific results to a subsequent portion of the paper.

As a preliminary, it is of course necessary to convert the observed number of claims to relative frequencies and to deal with the logarithm of the loss size.

A good deal of information can often be gained by simply plotting the data on a suitable graph and visually judging the result. Accordingly, the starting point in considering whether the log-normal described the observed data was to plot the data on special probability-log paper. The horizontal axis on this paper is logarithmic, while the vertical scale is adjusted to reflect the probabilities of the normal curve. This graph paper, therefore, has the property that the cumulative distribution function for the log-normal appears as a straight line.[5] When the observed cumulative frequencies are plotted, the result is, of course, a step-function. However, since the number of loss size intervals was fairly large, vertical lines were added to the step-function graphs at the saltus for better visual delineation.

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[4] Dickerson, O. D.; Katti, S. K.; and Hofflander, A. E.; "Loss Distributions in Non-Life Insurance," *The Journal of Insurance*, Vol. XXVIII, No. 3, p. 49.

[5] The particular commercial graph paper I used was 3 cycle, $\pm$ 2.05 standard deviation units, which was then extended manually to $\pm$ 2.3 standard deviation units.

The next step continued the visual approach and brought in the tabular. This was to fit a log-normal curve to the observed data and to draw the fitted curves on the graphs.

Sheet 1 of each of Exhibits 13 through 20 are the graphs and show both the step-functions and the fitted log-normal distribution functions.[6] Sheets 2 et seq. of these exhibits give the particulars in tabular form. The tabular information shown is as follows: Loss Size Interval; Observed Cumulative Frequency; Theoretical Cumulative Frequency; Absolute Value of Difference between Observed and Theoretical Cumulative Frequencies. In determining the means and standard deviations the actual average loss size within the interval was used. The cumulative frequencies shown correspond to the upper limit of the interval.

Having fitted a log-normal curve to the observed data it is possible to arrive at a judgment as to the goodness of fit, whether based on a visual impression using the graphs, or based on a comparison of the tabular values of the observed and fitted frequencies. For many of the particular areas of interest, it will be sufficient to stop at this point. The question of whether or not there is a significant difference between the observed and fitted curves will be conditioned on the requirements of the individual problem area under consideration. It may be, for example, that the fit overall is not too good, yet the fit may be quite good over a limited portion of the range, or below (or above) a certain point, where, perhaps, our special interest may lie.

On the other hand, there obviously will be times when it is desirable to have an analytical or statistical test of the goodness of fit. Perhaps the most widely used such test is the Chi-Square. There is however, another statistical test which seems to have many advantages over the Chi-Square test. This test, known as the Kolmogorov test, is, like the Chi-Square test, concerned with the problem of testing the hypothesis that a variable (here, the log of the claim size) has a specified distribution (here, the normal) against the alternative that it has some other distribution. However, while the Chi-Square test function is based on the differences between observed and hypothetical frequencies within cells, the Kolmogorov test is based on the observed and hypothetical cumulative distributions.

The test function in the Kolmogorov test is generally designated by D_n and is defined as the maximum of the absolute deviations between the observed and theoretical cumulative frequencies. That is, if $S_n(x)$ is the ob-

[6] Exhibit 14 has Sheets 1a and 1b rather than a Sheet 1. Sheet 1a corresponds to Sheet 1 of the other exhibits. The purpose of Sheet 1b is explained subsequently.

served cumulative relative frequency in a sample of size n corresponding to any given x, and $F(x)$ is the corresponding theoretical frequency, then[7]

$$D_n = \max_x \mid F(x) - S_n(x) \mid$$

The test itself consists of calculating the sample statistic D_n and then determining whether D_n exceeds a critical value D_n^α. That is, D_n^α is such that the following relation holds:

$$Prob\ (D_n \leqq D_n^\alpha) = 1 - \alpha$$

If we use an $\alpha = .05$, it turns out that for $n > 35$, $D_n^\alpha = \frac{1.36}{n^{1/2}}$. In applying the test at the 95% level, say, all we need do, therefore, is to calculate the statistic D_n and compare it with the value of $\frac{1.36}{n^{1/2}}$ (assuming $n > 35$). If D_n is more than $\frac{1.36}{n^{1/2}}$ we conclude that the fit is not sufficiently good and we reject the hypothesis that $F(x)$ correctly specifies the theoretical distribution.

Although we have not done so in this paper, the critical value D_n^α can also be used to construct a confidence belt with confidence coefficient $1 - \alpha$ about the observed step-function $S_n(x)$. That is, the two step-functions $S_n(x) \pm D_n^\alpha$ give the required belt for $F(x)$.[8]

It was mentioned above that the Kolmogorov test has many advantages. Among these is the fact that it does not involve any extensive calculations and is easy to use. Another is that the Kolmogorov test appears to be a more powerful test than the Chi-Square test; i.e., for a type 1 error of size α, there is a smaller probability of accepting the hypothesis when in fact the hypothesis is not true with the Kolmogorov test than with the Chi-Square test. Also, the Kolmogorov test can be used with relatively small sample sizes.

A few caveats are, nevertheless, in order. The Kolmogorov test is an exact test only when (i) the data is unclassified, and (ii) the parameters of

[7] Technically, D_n is defined as the least upper bound of the absolute deviation of $S_n(x)$ from $F(x)$; from a practical viewpoint this means the maximum.

[8] For $n > 35$, $D_n = \frac{\lambda}{n^{1/2}}$

The values of λ for several values of α are as follows:

α	.20	.10	.05	.01
λ	1.07	1.22	1.36	1.63

For $n < 35$ it is necessary to look up D_n^α in a table.

the hypothetical distribution are not estimated from the data. However, the discrepancy introduced by using grouped data is negligible if the grouping is not too coarse, as we believe is the case here. The second point is more important. If the parameters are estimated from the data, we can correct for the effect of this when a Chi-Square test is used by reducing the degrees of freedom. Unfortunately the effect of estimating the parameters from the data has not been worked out with respect to the Kolmogorov test. The recommended procedure is to correct for this effect by using a critical value smaller than would otherwise be used.[9]

Specific Results – Permanent Disability and Temporary Cases: Before turning to a more detailed consideration of the specific results as set forth in Exhibits 13 through 20, mention should be made of one of the problems that often arises in dealing with a given body of observed data, viz., the possibility that the data has been "contaminated." It will, perhaps, have been noted that among the Permanent Total cases reported for Policy Year 1961 was one case where the incurred loss size was $1,840. Now this is certainly an odd looking figure to find among the Permanent Total cases and it raises some immediate questions. It is, of course, possible that everything is quite legitimate, that it is truly a P. T. case, correctly entered, coded and punched with respect to both type of injury and amount. On the other hand, any one of a number of different types of errors could have occurred. Should the figure be disregarded? It could be argued that one's theory must be broad enough to encompass all possibilities, including mistakes of one sort or another; that mistakes will occur and that in routine handling of data such mistakes will remain unnoticed and uncorrected. This sort of reasoning argues for retaining the figure. One could equally argue for dropping it. The answer really depends on one's particular purposes in a specific context. Since the purpose of this paper is to present information, we have begged the question by including two sets of sheets for Exhibit 14. Those sheets marked with an "a" refer to the unadjusted data of Exhibit 4, Sheet 1; those marked with a "b" refer to the data excluding the $1,840 case.

In visually reviewing the graphs it should be noted that the incurred loss size is expressed in thousands for the Permanent Total and Major Permanent Partial cases; in hundreds for the Minor Permanent Partial cases; and in tens for the Temporary cases.

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[9] A discussion of the Kolmogorov test can be found in Hoel, P. G., *Introduction to Mathematical Statistics*, 3rd ed., Wiley, pp. 345-349; and in Keeping, E. S., *Introduction to Statistical Inference*, Van Nostrand, pp. 256-259.

It will, I think, be generally agreed that the visual impression one gets in reviewing the graphs is that the fit is not unacceptable for each of the categories and for each of the policy years. However, the answer given by the Kolmogorov test of goodness of fit is somewhat different.

Exhibit 21 sets forth the pertinent information for each of the types of injury, for each of Policy Years 1960 and 1961. Shown on this exhibit are the following: Number of Cases *(n)*; the parameters used in fitting a normal curve to the logarithms of the loss sizes, i.e., the mean and standard deviation;[10] the sample statistics D_n; the corresponding critical values $D_n^{.05}$; the result of applying the Kolmogorov test, i.e., accept or reject the hypothesis that the logarithm of the claim size has a normal distribution.

The result of applying the Kolmogorov test at the 95% level, as shown on Exhibit 21, is a rejection of the hypothesis for the Major, Minor and Temporary categories. The fit would appear to be acceptably good for the Permanent Total category. However, in view of the remarks above with regard to estimating parameters from the data one should perhaps say that the fit is just acceptable for the Permanent Total category.

The different conclusions reached by the visual and analytical approaches are only apparent and can be resolved by remembering two facts. The first is that the vertical scale on the graphs is not linear. Therefore, for example, if two given vertical distances are equal, they will not, in general, represent equal portions of the total frequency. That is, one must adjust his visual impressions to the vertical scale. Secondly, the graphs cannot emphasize the dependence of a goodness of fit test on the number in the sample. Thus, for example, while the value of D_n for Temporary for 1960 is much smaller than the value of D_n for Permanent Total for 1961 (something which is ascertainable from the graphs or tables and to be expected given the much larger number of Temporary cases) the graphs or tables by themselves cannot indicate whether the drop in the value of D_n is commensurate

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[10] The mean, variance and skewness of the corresponding log-normal curves can be found as follows (assuming logs to base 10 were used in the transformation): If α and $\beta^{1/2}$ stand for the mean and standard deviation as shown on Exhibit 21, then the mean and variance (μ and σ^2) of the log-normal is given by

$$\mu = \exp\left[\frac{\alpha}{c} + \frac{\beta}{2c^2}\right]$$

$$\sigma^2 = \mu^2 \eta^2$$

where $$c = \log e = .43429,$$

and $$\eta^2 = \exp\frac{\beta}{(c^2)} - 1.$$

The skewness is given by $(\eta^3 + 3\eta)$

with the increase in the number of cases. This, of course, is the point and purpose of a "critical value" in an analytical or statistical test.

One additional fact seems to be worthy of specific recognition. Many of the actions and decisions of an Actuary are predicated, explicitly or implicitly, on the assumption that a distribution observed to exist in some past period will continue to be the appropriate distribution in a future period. It is therefore of some interest to note that for each of the type of injury categories, the shape of the observed distribution for Policy Year 1961 is basically the same as that for Policy Year 1960.

SUMMARY

The size of loss data for the various type of injury categories normally recognized in workmen's compensation insurance has been presented in some detail in accordance with the general objective of making available factual material which can then be used in connection with consideration of problems relating to ratemaking, individual risk rating plans, reinsurance and other more specific areas of interest.

The distribution of Death cases has been seen to be directly conditioned by the dependency status variable and the concomitant statutory benefit provisions. Based on the Kolmogorov goodness of fit test at the 95% level, the log-normal distribution does not seem to provide an exact description of the Permanent Disability and Temporary cases, with the possible exception of Permanent Total. Nevertheless, the fact that the log-normal distribution is relatively easy to handle may dictate its use in many areas.

It should again be noted that, while we may not be able to specify exactly what hypothetical distribution underlies an observed distribution, it is still possible to utilize a critical value to construct a confidence belt about the observed distribution, and thereby obtain useful quantitative answers.

The data set forth in this paper, and the specific results described, reflect the experience of two specific years for a specific state. It would clearly be of great value if similar analyses were made of other bodies of data.

I should like to conclude this paper with the following observation: It may be possible to conclude, after a sufficient number of studies, that some given probability function adequately describes the distribution of losses by size. This would be a major achievement. Nevertheless, such a step should be considered as merely a preliminary to the ultimate construction of an appropriate model.

Exhibit No. 1

CALIFORNIA WORKMEN'S COMPENSATION
DISTRIBUTION OF LOSSES FOR DEATH CASES
BY TOTAL LOSS SIZE

Policy Year 1960 - 1st Reports

Loss Size Interval	Number of Cases	Average Loss Size
0 - 499	15	271.53
500 - 999	39	647.28
1,000 - 1,499	14	1,133.71
1,500 - 1,999	11	1,744.73
2,000 - 2,499	6	2,151.00
2,500 - 2,999	4	2,594.25
3,000 - 3,499	6	3,115.00
3,500 - 3,999	1	3,764.00
4,000 - 4,499	11	4,190.09
4,500 - 4,999	2	4,875.00
5,000 - 5,499	9	5,036.89
5,500 - 5,999	4	5,625.00
6,000 - 6,499	7	6,208.71
6,500 - 6,999	2	6,645.00
7,000 - 7,499	3	7,269.33
7,500 - 7,999	9	7,638.00
8,000 - 8,499	4	8,172.75
8,500 - 8,999	5	8,585.40
9,000 - 9,499	4	9,144.25
9,500 - 9,999	2	9,700.00
10,000 - 10,499	14	10,077.14
10,500 - 10,999	8	10,809.38
11,000 - 11,499	5	11,170.80
11,500 - 11,999	2	11,585.00
12,000 - 12,499	1	12,000.00
12,500 - 12,999	2	12,525.00
13,000 - 13,499	4	13,090.75
13,500 - 13,999	1	13,500.00
14,000 - 14,499	4	14,200.00
14,500 - 14,999	4	14,500.00
15,000 - 15,499	6	15,035.83
15,500 - 15,999	1	15,637.00
16,000 - 16,499	2	16,062.50
16,500 - 16,999	1	16,682.00
17,000 - 17,499	8	17,144.50
17,500 - 17,999	10	17,730.00
18,000 - 18,499	83	18,197.81
18,500 - 18,999	19	18,643.79
19,000 - 19,499	13	19,173.69
19,500 - 19,999	13	19,698.46
20,000 - 20,499	9	20,212.33
20,500 - 20,999	15	20,765.13
21,000 - 21,499	188	21,176.41
21,500 - 21,999	24	21,690.75
22,000 - 22,499	11	22,240.09
22,500 - 22,999	8	22,825.50
23,000 - 23,499	6	23,237.67
23,500 - 23,999	5	23,635.80
24,000 - 24,499	2	24,182.50
25,000 - 25,499	1	25,200.00
25,500 - 25,999	3	25,712.00
26,500 - 26,999	1	26,630.00
0 - 26,999	632	15,401.03

Exhibit No. 2

CALIFORNIA WORKMEN'S COMPENSATION
DISTRIBUTION OF LOSSES FOR DEATH CASES
BY TOTAL LOSS SIZE

Policy Year 1961 - 1st Reports

Loss Size Interval	Number of Cases	Average Loss Size	Loss Size Interval	Number of Cases	Average Loss Size
0 - 499	16	312.50	16,000 - 16,499	3	16,200.00
500 - 999	46	644.70	16,500 - 16,999	4	16,945.75
1,000 - 1,499	13	1,188.15	17,000 - 17,499	10	17,204.80
1,500 - 1,999	8	1,646.13	17,500 - 17,999	7	17,662.29
2,000 - 2,499	11	2,145.73	18,000 - 18,499	99	18,176.63
2,500 - 2,999	13	2,656.69	18,500 - 18,999	20	18,708.40
3,000 - 3,499	7	3,169.43	19,000 - 19,499	12	19,188.25
3,500 - 3,999	8	3,590.63	19,500 - 19,999	12	19,658.25
4,000 - 4,499	7	4,269.71	20,000 - 20,499	12	20,279.75
4,500 - 4,999	9	4,660.44	20,500 - 20,999	11	20,693.45
5,000 - 5,499	22	5,085.05	21,000 - 21,499	213	21,175.23
5,500 - 5,999	5	5,592.80	21,500 - 21,999	33	21,640.24
6,000 - 6,499	3	6,205.33	22,000 - 22,499	14	22,157.57
6,500 - 6,999	4	6,762.25	22,500 - 22,999	9	22,636.22
7,000 - 7,499	3	7,093.67	23,000 - 23,499	5	23,253.60
7,500 - 7,999	12	7,558.75	23,500 - 23,999	4	23,689.25
8,000 - 8,499	11	8,138.36	24,000 - 24,499	3	24,352.67
8,500 - 8,999	3	8,670.00	24,500 - 24,999	2	24,895.00
9,000 - 9,499	6	9,079.17	25,000 - 25,499	5	25,310.60
9,500 - 9,999	5	9,726.80	25,500 - 25,999	2	25,765.00
10,000 - 10,499	9	10,117.11	26,000 - 26,499	2	26,367.00
10,500 - 10,999	16	10,624.44	26,500 - 26,999	1	26,931.00
11,000 - 11,499	5	11,124.80	27,000 - 27,499	1	27,254.00
11,500 - 11,999	4	11,661.25	28,000 - 28,499	1	28,400.00
12,000 - 12,499	5	12,144.40	29,500 - 29,999	1	29,790.00
12,500 - 12,999	4	12,647.50	30,500 - 30,999	1	30,750.00
13,000 - 13,499	2	13,125.00	34,000 - 34,499	1	34,000.00
13,500 - 13,999	5	13,729.80	37,000 - 37,499	1	37,222.00
14,500 - 14,999	4	14,691.50	43,000 - 43,499	1	43,312.00
15,000 - 15,499	9	15,021.11	73,000 - 73,499	1	73,090.00
15,500 - 15,999	4	15,759.50	0 - 73,499	770	15,251.35

Exhibit No. 3

CALIFORNIA WORKMEN'S COMPENSATION
DISTRIBUTION OF LOSSES FOR PERMANENT TOTAL CASES
BY TOTAL LOSS SIZE

Policy Year 1960 - 1st Reports

Loss Size	Loss Size	Loss Size
12,380	68,391	147,563
32,499	69,653	147,663
39,348	75,394	159,121
40,299	80,000	161,415
43,624	86,828	164,208
44,977	89,028	165,183
46,000	104,500	174,404
54,825	107,326	179,169
55,338	114,514	199,965
56,000	118,144	206,511
56,001	119,874	280,354
58,506	121,200	292,525
58,600	125,000	4,955,238
59,673	128,935	
62,500	135,844	
63,291	139,845	
67,206	141,564	

No. of Cases = 46
Ave. Loss Size = 107,723

Exhibit No. 4

CALIFORNIA WORKMEN'S COMPENSATION
DISTRIBUTION OF LOSSES FOR PERMANENT TOTAL CASES
BY TOTAL LOSS SIZE

Policy Year 1961 - 1st Reports

Loss Size	Loss Size	Loss Size
1,840	75,000	108,637
33,300	75,500	109,521
46,000	76,823	111,591
48,457	77,711	115,547
50,247	79,304	132,946
53,200	81,969	145,787
53,327	83,000	150,000
53,653	83,481	152,015
55,000	86,690	156,995
59,371	89,000	166,644
62,100	93,410	172,826
62,522	94,816	174,600
63,800	99,187	201,460
64,588	100,187	213,260
64,726	100,340	250,351
65,340	101,090	254,494
68,874	101,312	331,151
70,639	103,515	5,889,192
72,679	107,493	
73,391	108,485	

No. of Cases = 57
Ave. Loss Size = 103,319

Exhibit No. 5
Sheet 1

CALIFORNIA WORKMEN'S COMPENSATION
DISTRIBUTION OF LOSSES FOR MAJOR CASES
BY TOTAL LOSS SIZE

Policy Year 1960 - 1st Reports

Loss Size Interval	Number of Cases	Average Loss Size
0 - 99	6	26.17
400 - 499	1	436.00
700 - 799	3	764.33
900 - 999	2	980.50
1,000 - 1,499	2	1,204.00
1,500 - 1,999	1	1,950.00
2,000 - 2,499	5	2,271.00
2,500 - 2,999	3	2,820.00
3,000 - 3,499	3	3,267.33
3,500 - 3,999	8	3,633.00
4,000 - 4,499	14	4,143.93
4,500 - 4,999	8	4,706.50
5,000 - 5,499	22	5,186.95
5,500 - 5,999	46	5,708.37
6,000 - 6,499	67	6,231.33
6,500 - 6,999	92	6,730.51
7,000 - 7,499	112	7,218.96
7,500 - 7,999	141	7,710.26
8,000 - 8,499	153	8,202.44
8,500 - 8,999	157	8,717.49
9,000 - 9,499	182	9,201.43
9,500 - 9,999	173	9,693.76
10,000 - 10,499	196	10,176.51
10,500 - 10,999	150	10,683.21
11,000 - 11,499	152	11,180.76
11,500 - 11,999	134	11,678.15
12,000 - 12,499	125	12,156.67
12,500 - 12,999	94	12,676.38
13,000 - 13,499	120	13,165.83
13,500 - 13,999	113	13,667.52

Loss Size Interval	Number of Cases	Average Loss Size
14,000 - 14,499	87	14,159.68
14,500 - 14,999	65	14,656.89
15,000 - 15,499	86	15,145.59
15,500 - 15,999	71	15,642.51
16,000 - 16,499	51	16,111.10
16,500 - 16,999	57	16,684.53
17,000 - 17,499	45	17,163.53
17,500 - 17,999	40	17,675.40
18,000 - 18,499	45	18,122.18
18,500 - 18,999	31	18,647.03
19,000 - 19,499	31	19,149.10
19,500 - 19,999	31	19,638.00
20,000 - 20,499	34	20,095.03
20,500 - 20,999	17	20,668.88
21,000 - 21,499	23	21,112.87
21,500 - 21,999	19	21,720.26
22,000 - 22,499	23	22,109.43
22,500 - 22,999	16	22,632.75
23,000 - 23,499	17	23,182.82
23,500 - 23,999	15	23,659.00
24,000 - 24,499	15	24,104.60
24,500 - 24,999	4	24,639.50
25,000 - 25,499	21	25,116.71
25,500 - 25,999	7	25,593.71
26,000 - 26,499	6	26,120.17
26,500 - 26,999	6	26,595.83
27,000 - 27,499	4	27,111.75
27,500 - 27,999	2	27,631.00
28,000 - 28,499	7	28,125.71
28,500 - 28,999	7	28,605.71

Exhibit No. 5
Sheet 2

Loss Size Interval	Number of Cases	Average Loss Size
29,000 - 29,499	2	29,064.00
29,500 - 29,999	5	29,632.80
30,000 - 30,499	5	30,112.00
30,500 - 30,999	3	30,533.33
31,000 - 31,499	2	31,160.00
31,500 - 31,999	1	31,617.00
32,000 - 32,499	3	32,018.33
32,500 - 32,999	3	32,704.00
33,000 - 33,499	3	33,163.00
33,500 - 33,999	4	33,583.75
34,000 - 34,499	2	34,213.50
34,500 - 34,999	1	34,530.00
35,000 - 35,499	4	35,142.00
36,000 - 36,499	4	36,178.75
36,500 - 36,999	1	36,550.00
37,000 - 37,499	2	37,033.00
37,500 - 37,999	1	37,610.00
38,500 - 38,999	2	38,671.00
39,000 - 39,499	1	39,490.00
39,500 - 39,999	1	39,686.00
40,500 - 40,999	4	40,777.00
41,000 - 41,499	1	41,462.00
42,000 - 42,499	2	42,090.00
43,000 - 43,499	2	43,300.50
44,000 - 44,499	2	44,167.00
45,000 - 45,499	1	45,079.00
45,500 - 45,999	3	45,737.67
46,500 - 46,999	1	46,693.00
48,000 - 48,499	1	48,130.00
49,000 - 49,499	1	49,440.00
50,000 - 50,499	3	50,135.33
50,500 - 50,999	1	50,920.00
52,000 - 52,499	1	52,140.00
53,000 - 53,499	3	53,187.00
54,000 - 54,499	1	54,162.00

Loss Size Interval	Number of Cases	Average Loss Size
54,500 - 54,999	1	54,997.00
55,500 - 55,999	1	55,516.00
56,000 - 56,499	1	56,000.00
59,500 - 59,999	3	59,853.67
60,000 - 60,499	2	60,000.00
60,500 - 60,999	1	60,717.00
61,500 - 61,999	1	61,656.00
64,500 - 64,999	1	64,912.00
65,000 - 65,499	2	65,258.00
68,000 - 68,499	1	68,344.00
71,000 - 71,499	1	71,476.00
71,500 - 71,999	1	71,540.00
74,500 - 74,999	1	74,772.00
76,000 - 76,499	1	76,307.00
77,500 - 77,999	1	77,869.00
88,500 - 88,999	1	88,811.00
90,000 - 90,499	1	90,000.00
94,000 - 94,499	1	94,000.00
95,000 - 95,499	1	95,040.00
98,000 - 98,499	1	98,428.00
102,000 - 102,499	1	102,366.00
186,000 - 186,499	1	186,000.00
0 - 186,499	3,271	13,172.79

Exhibit No. 6
Sheet 1

CALIFORNIA WORKMEN'S COMPENSATION
DISTRIBUTION OF LOSSES FOR MAJOR CASES
BY TOTAL LOSS SIZE

Policy Year 1961 - 1st Reports

Loss Size Interval	Number of Cases	Average Loss Size	Loss Size Interval	Number of Cases	Average Loss Size
0 - 99	3	60.67	13,500 - 13,999	145	13,670.69
400 - 499	2	459.00	14,000 - 14,499	141	14,174.25
700 - 799	1	700.00	14,500 - 14,999	135	14,668.33
900 - 999	1	937.00	15,000 - 15,499	133	15,117.36
1,000 - 1,499	2	1,349.00	15,500 - 15,999	100	16,674.01
1,500 - 1,999	2	1,749.00	16,000 - 16,499	103	16,146.57
2,000 - 2,499	2	2,451.50	16,500 - 16,999	74	16,693.46
2,500 - 2,999	2	2,678.50	17,000 - 17,499	76	17,179.34
3,000 - 3,499	11	3,266.18	17,500 - 17,999	74	17,662.42
3,500 - 3,999	18	3,726.61	18,000 - 18,499	80	18,175.70
4,000 - 4,499	23	4,188.87	18,500 - 18,999	44	18,664.34
4,500 - 4,999	26	4,620.62	19,000 - 19,499	50	19,147.78
5,000 - 5,499	45	5,175.00	19,500 - 19,999	59	19,684.10
5,500 - 5,999	63	5,728.59	20,000 - 20,499	54	20,118.19
6,000 - 6,499	112	6,224.45	20,500 - 20,999	33	20,657.36
6,500 - 6,999	124	6,694.15	21,000 - 21,499	38	21,183.79
7,000 - 7,499	155	7,205.90	21,500 - 21,999	34	21,673.65
7,500 - 7,999	173	7,704.00	22,000 - 22,499	25	22,102.08
8,000 - 8,499	185	8,201.86	22,500 - 22,999	23	22,705.91
8,500 - 8,999	217	8,681.21	23,000 - 23,499	24	23,177.88
9,000 - 9,499	220	9,189.52	23,500 - 23,999	16	23,635.94
9,500 - 9,999	213	9,693.54	24,000 - 24,499	20	24,196.55
10,000 - 10,499	230	10,184.08	24,500 - 24,999	17	24,675.00
10,500 - 10,999	202	10,706.73	25,000 - 25,499	21	25,127.95
11,000 - 11,499	192	11,162.41	25,500 - 25,999	13	25,687.77
11,500 - 11,999	177	11,687.40	26,000 - 26,499	13	26,155.54
12,000 - 12,499	207	12,175.69	26,500 - 26,999	7	26,664.71
12,500 - 12,999	167	12,653.72	27,000 - 27,499	7	27,104.29
13,000 - 13,499	181	13,159.60	27,500 - 27,999	13	27,636.54

Exhibit No. 6
Sheet 2

Loss Size Interval	Number of Cases	Average Loss Size
28,000 - 28,499	6	28,054.17
28,500 - 28,999	12	28,682.83
29,000 - 29,499	7	29,278.43
29,500 - 29,999	6	29,777.50
30,000 - 30,499	8	30,179.50
30,500 - 30,999	2	30,750.00
31,000 - 31,499	2	31,277.50
31,500 - 31,999	4	31,779.50
32,000 - 32,499	8	32,305.38
32,500 - 32,999	2	32,666.50
33,000 - 33,499	3	33,156.67
33,500 - 33,999	7	33,790.29
34,000 - 34,499	2	34,244.50
34,500 - 34,999	2	34,690.00
35,000 - 35,499	3	35,252.33
35,500 - 35,999	5	35,695.40
36,000 - 36,499	4	36,115.50
36,500 - 36,999	2	36,822.50
37,000 - 37,499	2	37,233.50
38,000 - 38,499	2	38,073.50
38,500 - 38,999	1	38,590.00
39,000 - 39,499	1	39,462.00
39,500 - 39,999	5	39,754.40
40,000 - 40,499	5	40,193.40
40,500 - 40,999	4	40,767.25
41,000 - 41,499	3	41,137.33
41,500 - 41,999	3	41,800.67
42,000 - 42,499	1	42,256.00
42,500 - 42,999	2	42,865.00
43,000 - 43,499	4	43,233.75
43,500 - 43,999	1	43,830.00
44,000 - 44,499	1	44,000.00
45,000 - 45,499	2	45,168.50
45,500 - 45,999	3	45,758.67
46,000 - 46,499	4	46,186.50
46,500 - 46,999	2	46,679.50
47,000 - 47,499	3	47,108.00
47,500 - 47,999	4	47,697.00
48,000 - 48,499	1	48,087.00
49,500 - 49,999	2	49,739.00
50,000 - 50,499	1	50,257.00
50,500 - 50,999	1	50,527.00
51,500 - 51,999	1	51,564.00
52,000 - 52,499	1	52,025.00
52,500 - 52,999	2	52,707.00
55,000 - 55,499	3	55,237.00
55,500 - 55,999	1	55,900.00
56,500 - 56,999	1	56,624.00
57,000 - 57,499	1	57,433.00
57,500 - 57,999	2	57,596.50
58,000 - 58,499	1	58,490.00
59,000 - 59,499	2	59,270.00
59,500 - 59,999	1	59,581.00
60,000 - 60,499	3	60,000.00
60,500 - 60,999	2	60,695.50
61,500 - 61,999	1	61,659.00
62,000 - 62,499	1	62,000.00
63,000 - 63,499	1	63,146.00
63,500 - 63,999	1	63,858.00
66,000 - 66,499	1	66,051.00
67,000 - 67,499	1	67,340.00
68,500 - 68,999	1	68,887.00
69,500 - 69,999	1	69,500.00
70,000 - 70,499	1	70,238.00
71,500 - 71,999	1	71,829.00
72,000 - 72,499	1	72,100.00
73,000 - 73,499	1	73,158.00
75,000 - 75,499	2	75,010.50
76,000 - 76,499	1	76,100.00
77,000 - 77,499	2	77,187.50
78,500 - 78,999	1	78,757.00
80,500 - 80,999	1	80,683.00
83,000 - 83,499	1	83,472.00
86,500 - 86,999	1	86,500.00
89,000 - 89,499	1	89,167.00
91,500 - 91,999	1	91,925.00
98,000 - 98,499	1	98,204.00
99,000 - 99,499	1	99,197.00
100,000 - 100,499	1	100,404.00
122,000 - 122,499	1	122,272.00
174,500 - 174,999	1	174,998.00
188,000 - 188,499	1	188,418.00
0 - 188,499	4,721	13,687.67

CALIFORNIA WORKMEN'S COMPENSATION
DISTRIBUTION OF LOSSES FOR MINOR CASES
BY TOTAL LOSS SIZE

Policy Year 1960 - 1st Reports

Loss Size Interval	Number of Cases	Average Loss Size
0 - 99	46	50.04
100 - 199	86	150.86
200 - 299	120	252.53
300 - 399	182	349.75
400 - 499	219	445.32
500 - 599	377	544.10
600 - 699	510	647.37
700 - 799	637	745.40
800 - 899	666	846.18
900 - 999	655	941.02
1,000 - 1,499	2,762	1,220.40
1,500 - 1,999	2,280	1,713.34
2,000 - 2,499	1,909	2,205.07
2,500 - 2,999	1,549	2,706.84
3,000 - 3,499	1,418	3,193.23
3,500 - 3,999	1,236	3,695.52
4,000 - 4,499	1,052	4,182.15
4,500 - 4,999	845	4,690.28
5,000 - 5,499	738	5,189.59
5,500 - 5,999	610	5,680.56
6,000 - 6,499	566	6,160.49
6,500 - 6,999	420	6,661.54
7,000 - 7,499	365	7,157.25
7,500 - 7,999	285	7,673.02
8,000 - 8,499	217	8,143.23
8,500 - 8,999	165	8,661.25
9,000 - 9,499	139	9,141.95
9,500 - 9,999	118	9,643.19
10,000 - 10,499	111	10,106.61
10,500 - 10,999	64	10,685.69
11,000 - 11,499	50	11,123.22
11,500 - 11,999	33	11,638.36
12,000 - 12,499	31	12,170.52
12,500 - 12,999	24	12,571.33
13,000 - 13,499	13	13,065.00
13,500 - 13,999	11	13,656.09
14,000 - 14,499	11	14,136.18
14,500 - 14,999	5	14,504.00
15,000 - 15,999	9	15,116.56
16,000 - 16,499	5	16,000.00
16,500 - 16,999	4	16,578.25
17,000 - 17,999	3	17,273.33
18,000 - 18,999	2	18,250.00
19,000 - 19,499	3	19,133.33
20,500 - 23,499	3	21,983.33
0 - 23,499	20,554	3,113.05

Exhibit No. 8

CALIFORNIA WORKMEN'S COMPENSATION
DISTRIBUTION OF LOSSES FOR MINOR CASES
BY TOTAL LOSS SIZE

Policy Year 1961 - 1st Reports

Loss Size Interval	Number of Cases	Average Loss Size
0 - 99	54	58.39
100 - 199	102	149.22
200 - 299	175	253.29
300 - 399	215	350.08
400 - 499	255	447.61
500 - 599	447	545.84
600 - 699	576	646.04
700 - 799	688	745.10
800 - 899	744	843.18
900 - 999	703	942.10
1,000 - 1,499	3,192	1,212.56
1,500 - 1,999	2,685	1,714.55
2,000 - 2,499	2,356	2,207.92
2,500 - 2,999	1,908	2,707.26
3,000 - 3,499	1,687	3,206.31
3,500 - 3,999	1,432	3,689.99
4,000 - 4,499	1,311	4,187.15
4,500 - 4,999	1,077	4,692.27
5,000 - 5,499	875	5,173.41
5,500 - 5,999	745	5,684.97
6,000 - 6,499	593	6,180.70
6,500 - 6,999	523	6,673.59
7,000 - 7,499	432	7,166.75
7,500 - 7,999	344	7,672.03
8,000 - 8,499	320	8,167.00
8,500 - 8,999	232	8,675.17
9,000 - 9,499	219	9,159.14
9,500 - 9,999	140	9,643.50
10,000 - 10,499	132	10,114.25
10,500 - 10,999	94	10,642.41
11,000 - 11,499	81	11,139.68
11,500 - 11,999	51	11,679.49
12,000 - 12,499	46	12,171.07
12,500 - 12,999	41	12,640.80
13,000 - 13,499	26	13,141.62
13,500 - 13,999	24	13,686.29
14,000 - 14,499	16	14,118.75
14,500 - 14,999	10	14,645.30
15,000 - 15,499	14	15,178.21
15,500 - 15,999	6	15,740.67
16,000 - 16,499	5	16,062.20
16,500 - 16,999	5	16,616.40
17,000 - 17,499	9	17,101.67
17,500 - 17,999	5	17,676.00
18,000 - 18,999	4	18,475.00
19,000 - 19,499	2	19,030.00
20,000 - 20,999	2	20,325.00
21,000 - 22,999	3	21,916.67
24,000 - 24,499	2	24,250.00
25,000 - 25,999	3	25,398.33
34,000 - 35,499	2	34,825.00
0 - 35,499	24,613	3,228.46

Exhibit No. 9

CALIFORNIA WORKMEN'S COMPENSATION
DISTRIBUTION OF LOSSES FOR TEMPORARY CASES
BY TOTAL LOSS SIZE

Policy Year 1960 - 1st Reports

Loss Size Interval	Number of Cases	Average Loss Size
0 - 9	96	4.93
10 - 19	192	15.77
20 - 29	441	25.29
30 - 39	777	34.97
40 - 49	1,194	44.57
50 - 59	1,487	54.46
60 - 69	1,622	64.62
70 - 79	1,681	74.50
80 - 89	1,691	84.47
90 - 99	1,597	94.60
100 - 149	7,003	123.33
150 - 199	5,158	173.19
200 - 249	4,083	222.39
250 - 299	3,110	272.63
300 - 349	2,856	322.16
350 - 399	2,236	372.52
400 - 449	2,025	420.60
450 - 499	1,633	472.67
500 - 549	1,476	518.81
550 - 599	1,245	572.77
600 - 649	1,332	621.07
650 - 699	1,119	672.04
700 - 749	1,090	720.84
750 - 799	1,066	771.09
800 - 849	981	820.56
850 - 899	851	871.86
900 - 949	753	918.77
950 - 999	571	970.18
1,000 - 1,499	2,887	1,182.26
1,500 - 1,999	1,092	1,685.73
2,000 - 2,499	634	2,146.55
2,500 - 2,999	405	2,680.94
3,000 - 3,499	264	3,165.98
3,500 - 3,999	176	3,655.49
4,000 - 4,499	133	4,154.05
4,500 - 4,999	88	4,648.36
5,000 - 5,499	78	5,098.14
5,500 - 5,999	62	5,619.89
6,000 - 6,499	38	6,088.66
6,500 - 6,999	21	6,610.71
7,000 - 7,499	33	7,075.06
7,500 - 7,999	20	7,636.05
8,000 - 8,499	21	8,143.29
8,500 - 8,999	13	8,650.00
9,000 - 9,999	7	9,657.43
10,000 - 10,999	14	10,231.29
11,000 - 12,999	7	11,943.43
13,000 - 16,499	6	14,292.33
17,000 - 33,999	7	22,634.29
0 - 33,999	55,372	496.90

Exhibit No. 10

CALIFORNIA WORKMEN'S COMPENSATION
DISTRIBUTION OF LOSSES FOR TEMPORARY CASES
BY TOTAL LOSS SIZE

Policy Year 1961 - 1st Reports

Loss Size Interval	Number of Cases	Average Loss Size
0 - 9	71	5.99
10 - 19	183	14.90
20 - 29	466	25.10
30 - 39	830	34.69
40 - 49	1,291	44.76
50 - 59	1,621	54.59
60 - 69	1,830	64.38
70 - 79	1,819	74.46
80 - 89	1,846	84.44
90 - 99	1,757	94.52
100 - 149	7,530	123.03
150 - 199	5,706	172.55
200 - 249	4,421	222.86
250 - 299	3,484	272.94
300 - 349	2,979	321.73
350 - 399	2,446	372.72
400 - 449	2,022	421.44
450 - 499	1,714	472.00
500 - 549	1,634	520.62
550 - 599	1,361	571.50
600 - 649	1,345	621.14
650 - 699	1,188	672.58
700 - 749	1,207	721.48
750 - 799	1,163	770.84
800 - 849	1,053	820.35
850 - 899	955	872.93
900 - 949	818	915.45
950 - 999	635	970.61
1,000 - 1,499	3,333	1,173.53
1,500 - 1,999	1,273	1,663.31
2,000 - 2,499	729	2,177.04
2,500 - 2,999	433	2,582.25
3,000 - 3,499	330	3,137.05
3,500 - 3,999	216	3,663.19
4,000 - 4,499	174	4,133.39
4,500 - 4,999	121	4,675.05
5,000 - 5,499	94	5,123.88
5,500 - 5,999	66	5,639.88
6,000 - 6,499	51	6,158.59
6,500 - 6,999	38	6,660.24
7,000 - 7,499	25	7,101.40
7,500 - 7,999	25	7,650.12
8,000 - 8,499	24	8,076.04
8,500 - 8,999	19	8,618.16
9,000 - 9,499	11	9,173.73
9,500 - 9,999	12	9,627.92
10,000 - 10,499	11	10,095.45
10,500 - 10,999	8	10,695.50
11,000 - 11,999	11	11,218.64
12,000 - 12,999	8	12,410.50
13,000 - 14,999	6	13,500.00
15,000 - 20,499	5	17,280.00
0 - 20,499	60,398	513.80

Exhibit 11

DEATH - 1960

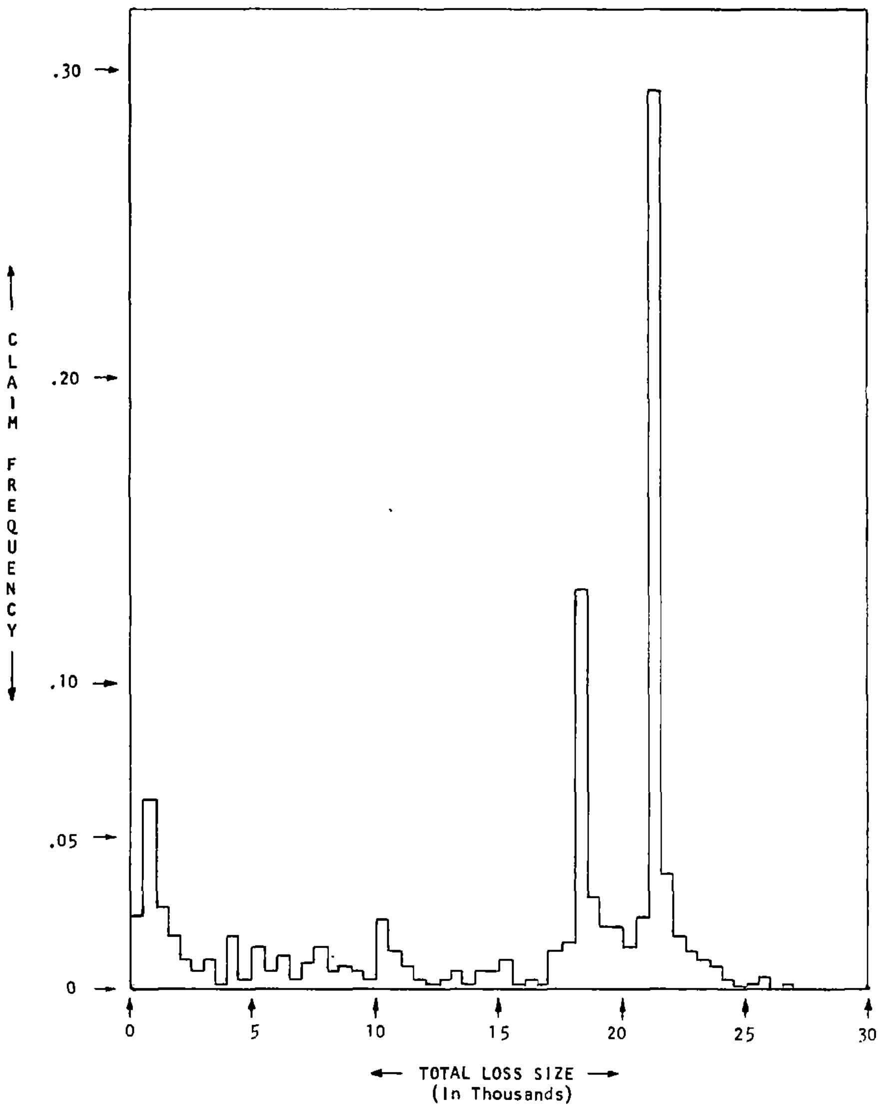


Exhibit 12

DEATH - 1961

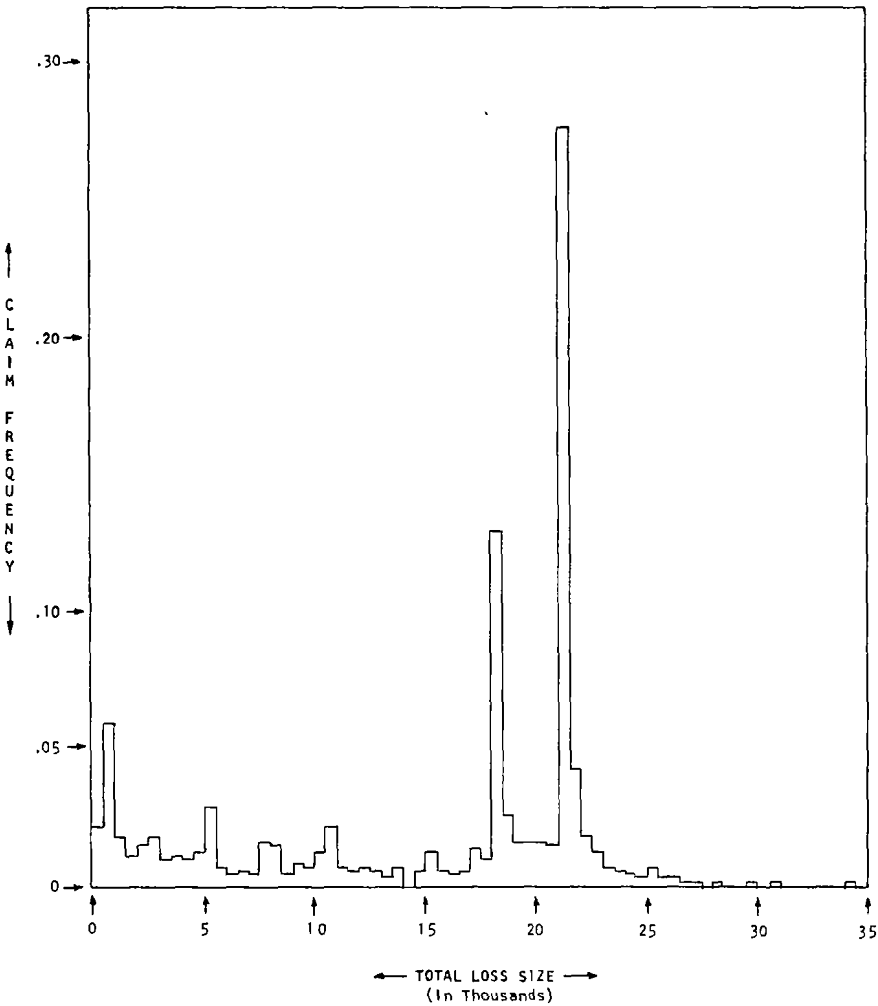


Exhibit 13
Sheet 1

PERMANENT TOTAL - 1960

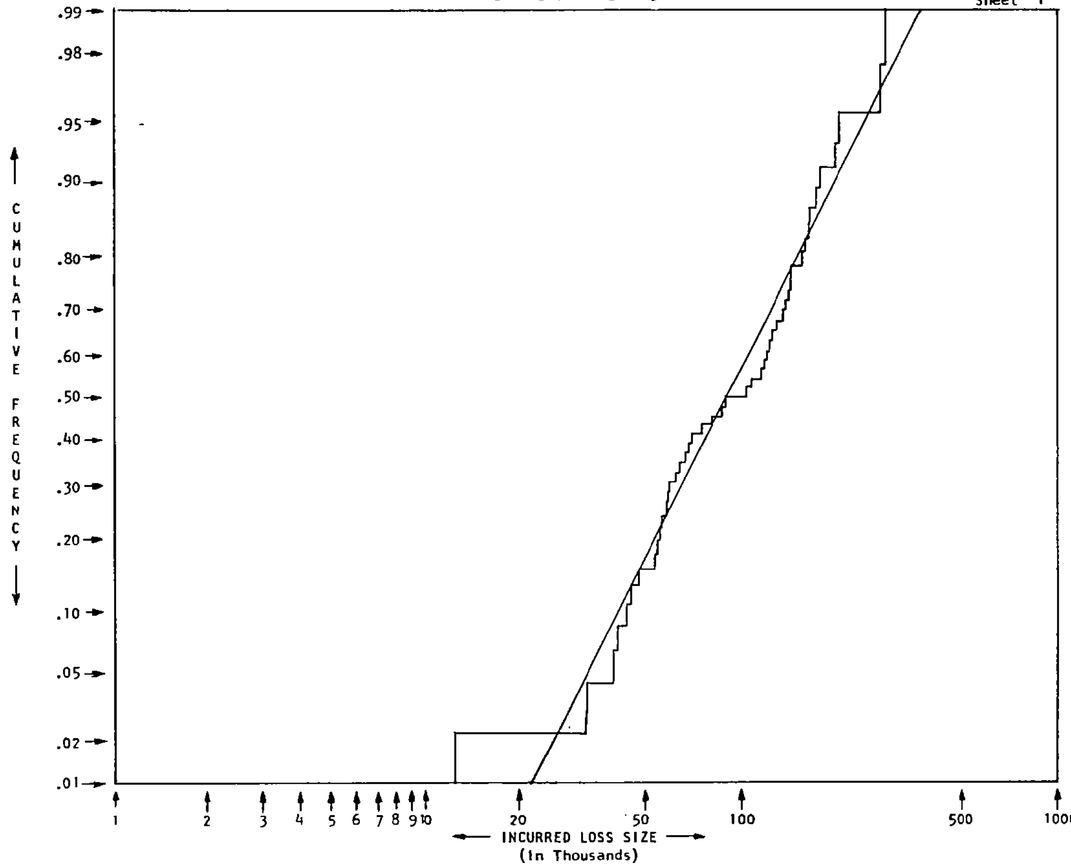


Exhibit 13
Sheet 2

PERMANENT TOTAL - 1960

(1) Loss Size	(2) Cumulative Frequency Observed	(3) Cumulative Frequency Theoretical	(4) Absolute Difference (2)-(3)	(1) Loss Size	(2) Cumulative Frequency Observed	(3) Cumulative Frequency Theoretical	(4) Absolute Difference (2)-(3)
12,380	.0217	.0007	.0210	104,500	.5217	.5910	.0693
32,499	.0435	.0495	.0060	107,326	.5435	.6064	.0629
39,348	.0652	.0901	.0249	114,514	.5652	.6480	.0828
40,299	.0870	.0968	.0098	118,144	.5870	.6664	.0794
43,624	.1087	.1190	.0103	119,874	.6087	.6736	.0649
44,977	.1304	.1292	.0012	121,200	.6304	.6808	.0504
46,000	.1522	.1379	.0143	125,000	.6522	.6985	.0463
54,825	.1739	.2090	.0351	128,985	.6739	.7157	.0418
55,338	.1957	.2148	.0191	135,844	.6957	.7422	.0465
56,000	.2174	.2206	.0032	139,845	.7174	.7580	.0406
56,001	.2391	.2206	.0185	141,564	.7391	.7642	.0251
58,506	.2609	.2420	.0189	147,563	.7609	.7852	.0243
58,600	.2826	.2420	.0406	147,663	.7826	.7852	.0026
59,673	.3043	.2514	.0529	159,121	.8043	.8186	.0143
62,500	.3261	.2743	.0518	161,415	.8261	.8238	.0023
63,291	.3478	.2810	.0668	164,208	.8478	.8315	.0163
67,206	.3696	.3156	.0540	165,183	.8696	.8340	.0356
68,391	.3913	.3264	.0649	174,404	.8913	.8554	.0359
69,653	.4130	.3372	.0758	179,169	.9130	.8643	.0487
75,394	.4348	.3859	.0489	199,965	.9348	.8997	.0351
80,000	.4565	.4207	.0358	206,511	.9565	.9082	.0483
86,828	.4783	.4721	.0062	280,354	.9783	.9656	.0127
89,028	.5000	.4880	.0120	292,525	1.0000	.9706	.0294

Exhibit 14
Sheet 1a

PERMANENT TOTAL - 1961

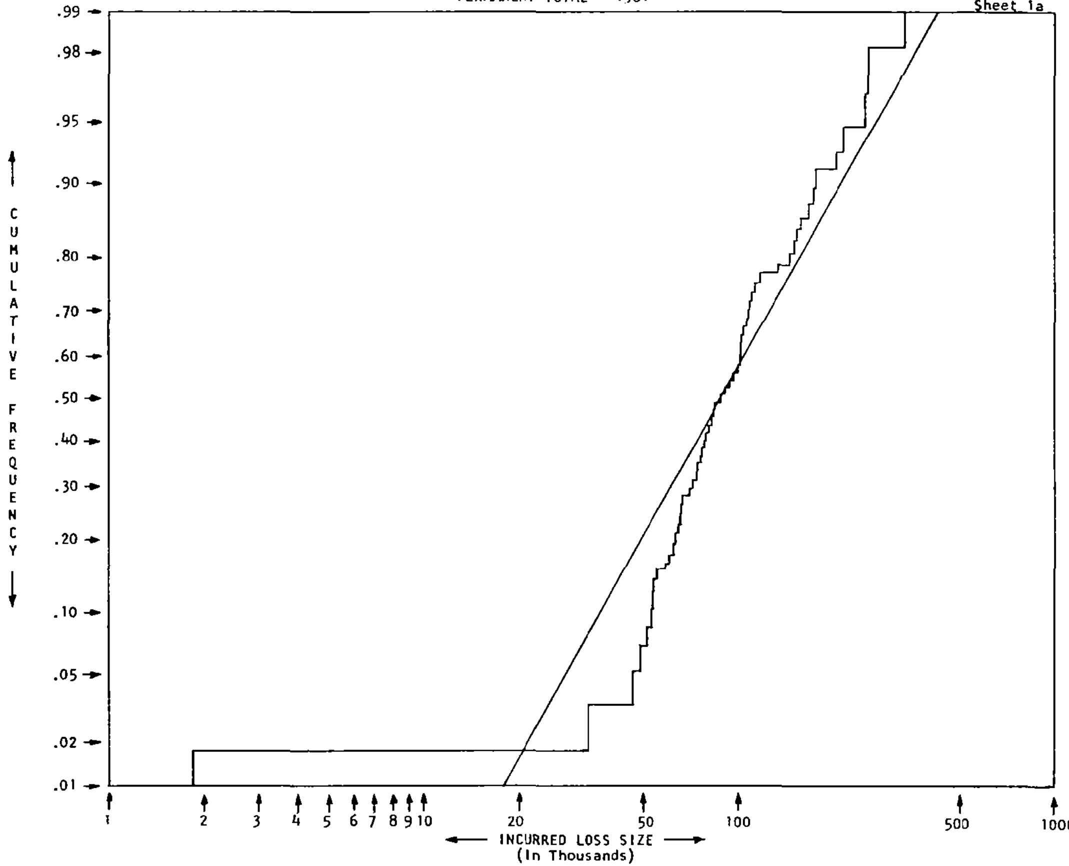


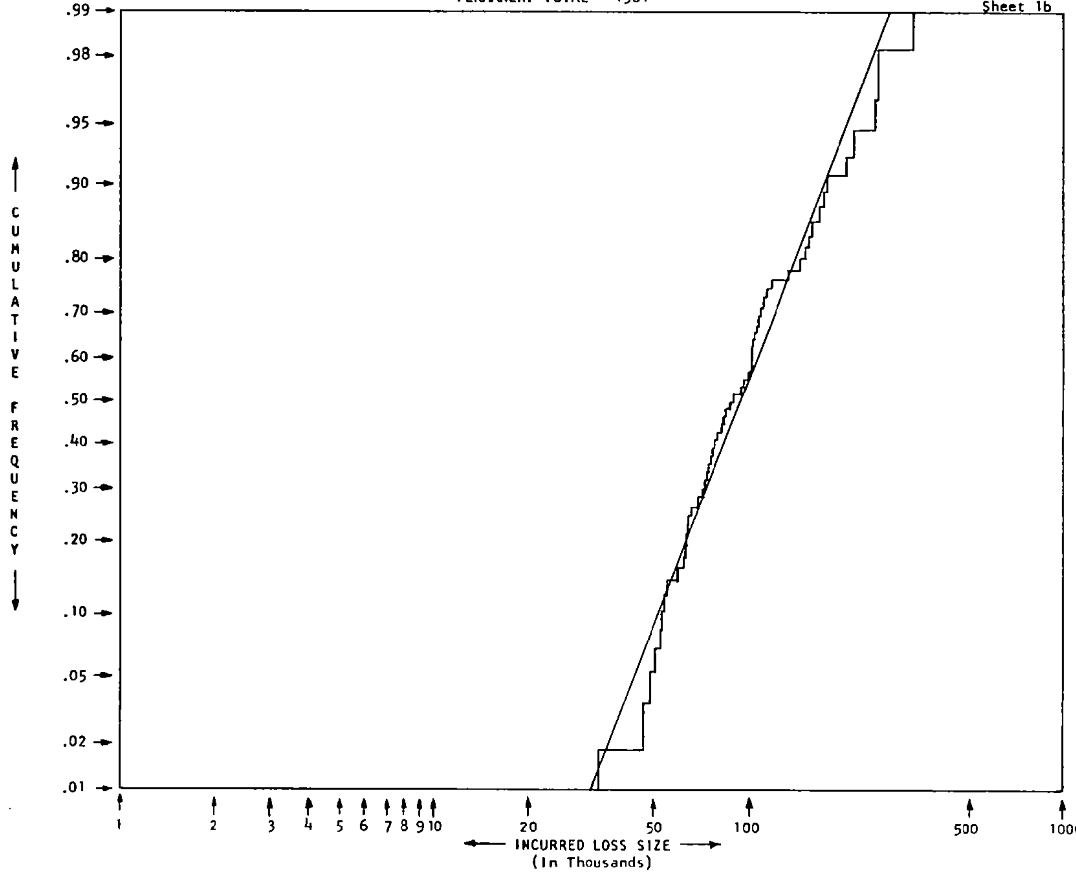
Exhibit 14
Sheet 2a

PERMANENT TOTAL - 1961

(1) Loss Size	(2) Cumulative Frequency Observed	(3) Cumulative Frequency Theoretical	(4) Absolute Difference (2)-(3)
1,840	.0175	.0000	.0175
33,300	.0351	.0838	.0487
46,000	.0526	.1788	.1262
48,457	.0702	.2005	.1303
50,247	.0877	.2148	.1271
53,200	.1053	.2389	.1336
53,327	.1228	.2420	.1192
53,653	.1404	.2420	.1016
55,000	.1579	.2546	.0967
59,371	.1754	.2912	.1158
62,100	.1930	.3121	.1191
62,522	.2105	.3156	.1051
63,800	.2281	.3264	.0983
64,588	.2456	.3336	.0880
64,726	.2632	.3336	.0704
65,340	.2807	.3409	.0602
68,874	.2982	.3669	.0687
70,639	.3158	.3821	.0663
72,679	.3333	.3974	.0641
73,391	.3509	.4013	.0504
75,000	.3684	.4168	.0484
75,500	.3860	.4207	.0347
76,823	.4035	.4286	.0251
77,711	.4211	.4364	.0153
79,304	.4388	.4483	.0097
81,969	.4561	.4641	.0080
83,000	.4737	.4721	.0016
83,481	.4912	.4761	.0151
86,690	.5088	.4960	.0128
89,000	.5263	.5120	.0143
93,410	.5439	.5398	.0041
94,816	.5614	.5478	.0136
99,187	.5789	.5753	.0036
100,187	.5965	.5793	.0172
100,340	.6140	.5793	.0347
101,090	.6316	.5832	.0484
101,312	.6491	.5871	.0620
103,515	.6667	.5987	.0680
107,493	.6842	.6179	.0663
108,485	.7018	.6255	.0763
108,637	.7193	.6255	.0938
109,521	.7368	.6293	.1075
111,591	.7544	.6406	.1138
115,547	.7719	.6591	.1128
132,946	.7895	.7291	.0604
145,787	.8070	.7704	.0366
150,000	.8246	.7823	.0423
152,015	.8421	.7881	.0540
156,995	.8596	.8023	.0573
166,644	.8772	.8238	.0534
172,826	.8947	.8389	.0558
174,600	.9123	.8413	.0710
201,460	.9298	.8869	.0429
213,260	.9474	.9015	.0459
250,351	.9649	.9357	.0292
254,494	.9825	.9382	.0443
331,151	1.0000	.9726	.0274

Exhibit 14
Sheet 1b

PERMANENT TOTAL - 1961



PERMANENT TOTAL - 1961

(1) Loss Size	(2) Cumulative Frequency Observed	(3) Cumulative Frequency Theoretical	(4) Absolute Difference (2)-(3)
33,300	.0179	.0143	.0036
46,000	.0357	.0668	.0311
48,457	.0536	.0823	.0287
50,247	.0714	.0951	.0237
53,200	.0893	.1170	.0277
53,327	.1071	.1170	.0099
53,653	.1250	.1210	.0040
55,000	.1429	.1314	.0115
59,371	.1607	.1685	.0078
62,100	.1786	.1949	.0163
62,522	.1964	.1977	.0013
63,800	.2143	.2090	.0053
64,588	.2321	.2177	.0144
64,726	.2500	.2177	.0323
65,340	.2679	.2236	.0443
68,874	.2857	.2611	.0246
70,639	.3036	.2776	.0260
72,679	.3214	.2981	.0233
73,391	.3393	.3050	.0343
75,000	.3571	.3228	.0343
75,500	.3750	.3264	.0486
76,823	.3929	.3409	.0520
77,711	.4107	.3483	.0624
79,304	.4286	.3669	.0617
81,969	.4464	.3936	.0528
83,000	.4643	.4013	.0630
83,481	.4821	.4052	.0769
86,690	.5000	.4364	.0636
89,000	.5179	.4602	.0577
93,410	.5357	.5000	.0357
94,816	.5536	.5120	.0416
99,187	.5714	.5517	.0197
100,187	.5893	.5596	.0297
100,340	.6071	.5596	.0475
101,090	.6250	.5675	.0575
101,312	.6429	.5714	.0715
103,515	.6607	.5871	.0736
107,493	.6786	.6179	.0607
108,485	.6964	.6255	.0709
108,637	.7143	.6255	.0888
109,521	.7321	.6331	.0990
111,591	.7500	.6480	.1020
115,547	.7679	.6736	.0943
132,946	.7857	.7734	.0123
145,787	.8036	.8289	.0253
150,000	.8214	.8438	.0224
152,015	.8393	.8508	.0115
156,995	.8571	.8665	.0094
166,644	.8750	.8907	.0157
172,826	.8929	.9049	.0120
174,600	.9107	.9082	.0025
201,460	.9286	.9484	.0198
213,260	.9464	.9608	.0144
250,351	.9643	.9821	.0178
254,494	.9821	.9834	.0013
331,151	1.0000	.9964	.0036

Exhibit 15
Sheet 1

MAJOR PERMANENT PARTIAL - 1960

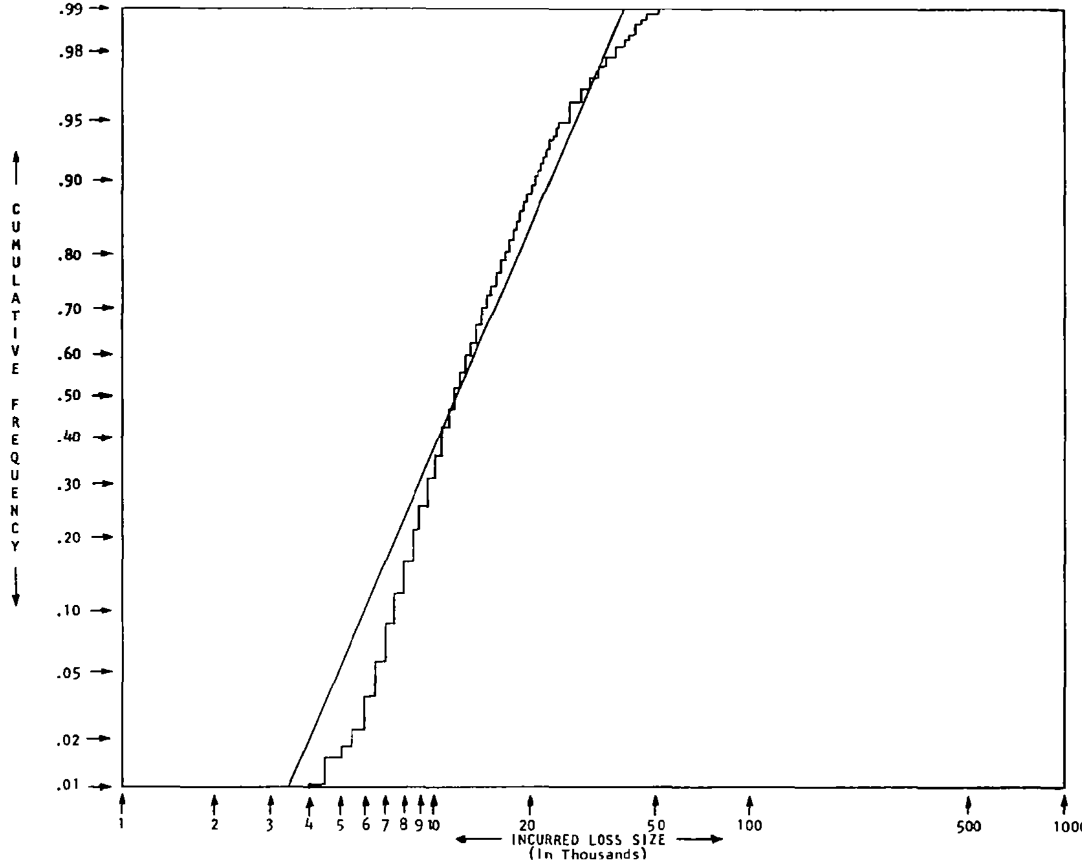


Exhibit 15
Sheet 2

MAJOR PERMANENT PARTIAL - 1960

(1) Loss Size Interval	(2) Cumulative Frequency Observed	(3) Cumulative Frequency Theoretical	(4) Absolute Difference (2)-(3)
0 - 99	.0018	.0000	.0018
400 - 499	.0021	.0000	.0021
700 - 799	.0031	.0000	.0031
900 - 999	.0037	.0000	.0037
1,000 - 1,499	.0043	.0001	.0042
1,500 - 1,999	.0046	.0005	.0041
2,000 - 2,499	.0061	.0019	.0042
2,500 - 2,999	.0070	.0053	.0017
3,000 - 3,499	.0079	.0119	.0040
3,500 - 3,999	.0104	.0223	.0119
4,000 - 4,499	.0147	.0370	.0223
4,500 - 4,999	.0171	.0563	.0392
5,000 - 5,499	.0238	.0799	.0561
5,500 - 5,999	.0379	.1071	.0692
6,000 - 6,499	.0584	.1379	.0795
6,500 - 6,999	.0865	.1711	.0846
7,000 - 7,499	.1208	.2061	.0853
7,500 - 7,999	.1639	.2426	.0787
8,000 - 8,499	.2106	.2800	.0694
8,500 - 8,999	.2586	.3174	.0588
9,000 - 9,499	.3143	.3546	.0403
9,500 - 9,999	.3672	.3913	.0241
10,000 - 10,499	.4271	.4270	.0001
10,500 - 10,999	.4729	.4618	.0111
11,000 - 11,499	.5194	.4952	.0242
11,500 - 11,999	.5604	.5275	.0329
12,000 - 12,499	.5986	.5580	.0406
12,500 - 12,999	.6273	.5871	.0402
13,000 - 13,499	.6640	.6145	.0495
13,500 - 13,999	.6986	.6406	.0580
14,000 - 14,499	.7252	.6653	.0599
14,500 - 14,999	.7450	.6883	.0567
15,000 - 15,499	.7713	.7099	.0614
15,500 - 15,999	.7930	.7301	.0629
16,000 - 16,499	.8086	.7489	.0597
16,500 - 16,999	.8260	.7664	.0596
17,000 - 17,499	.8398	.7829	.0569
17,500 - 17,999	.8520	.7981	.0539
18,000 - 18,499	.8658	.8125	.0533
18,500 - 18,999	.8753	.8259	.0494
19,000 - 19,499	.8847	.8382	.0465
19,500 - 19,999	.8942	.8497	.0445
20,000 - 20,499	.9046	.8601	.0445
20,500 - 20,999	.9098	.8701	.0397
21,000 - 21,499	.9168	.8792	.0376
21,500 - 21,999	.9227	.8879	.0348
22,000 - 22,499	.9297	.8957	.0340
22,500 - 22,999	.9346	.9030	.0316
23,000 - 23,499	.9398	.9097	.0301
23,500 - 23,999	.9444	.9161	.0283
24,000 - 24,499	.9489	.9219	.0270
24,500 - 24,999	.9502	.9273	.0229
25,000 - 25,499	.9566	.9324	.0242
25,500 - 25,999	.9587	.9371	.0216
26,000 - 26,499	.9606	.9414	.0192
26,500 - 26,999	.9624	.9454	.0170
27,000 - 27,499	.9636	.9492	.0144
27,500 - 27,999	.9642	.9526	.0116
28,000 - 28,499	.9664	.9558	.0106
28,500 - 28,999	.9685	.9588	.0097

Exhibit 15
Sheet 3

MAJOR PERMANENT PARTIAL - 1960

(1) Loss Size Interval	(2) Cumulative Frequency Observed	(3) Cumulative Frequency Theoretical	(4) Absolute Difference (2)-(3)
29,000 - 29,499	.9691	.9615	.0076
29,500 - 29,999	.9707	.9642	.0065
30,000 - 30,499	.9722	.9665	.0057
30,500 - 30,999	.9731	.9688	.0043
31,000 - 31,499	.9737	.9708	.0029
31,500 - 31,999	.9740	.9728	.0012
32,000 - 32,499	.9749	.9745	.0004
32,500 - 32,999	.9758	.9762	.0004
33,000 - 33,499	.9768	.9778	.0010
33,500 - 33,999	.9780	.9792	.0012
34,000 - 34,499	.9786	.9806	.0020
34,500 - 34,999	.9789	.9818	.0029
35,000 - 35,499	.9801	.9830	.0029
36,000 - 36,499	.9814	.9851	.0037
36,500 - 36,999	.9817	.9860	.0043
37,000 - 37,499	.9823	.9869	.0046
37,500 - 37,999	.9826	.9877	.0051
38,500 - 38,999	.9832	.9892	.0060
39,000 - 39,499	.9835	.9898	.0063
39,500 - 39,999	.9838	.9905	.0067
40,500 - 40,999	.9850	.9916	.0066
41,000 - 41,499	.9853	.9921	.0068
42,000 - 42,499	.9859	.9931	.0072
43,000 - 43,499	.9865	.9939	.0074
44,000 - 44,499	.9872	.9946	.0074
45,000 - 45,499	.9875	.9952	.0077
45,500 - 45,999	.9884	.9955	.0071
46,500 - 46,999	.9887	.9960	.0073
48,000 - 48,499	.9890	.9966	.0076
49,000 - 49,499	.9893	.9970	.0077

(1) Loss Size Interval	(2) Cumulative Frequency Observed	(3) Cumulative Frequency Theoretical	(4) Absolute Difference (2)-(3)
50,000 - 50,499	.9902	.9974	.0072
50,500 - 50,999	.9905	.9974	.0069
52,000 - 52,499	.9908	.9979	.0071
53,000 - 53,499	.9917	.9981	.0064
54,000 - 54,499	.9921	.9983	.0062
54,500 - 54,999	.9924	.9984	.0060
55,500 - 55,999	.9927	.9986	.0059
56,000 - 56,499	.9930	.9987	.0057
59,500 - 59,999	.9939	.9991	.0052
60,000 - 60,499	.9945	.9991	.0046
60,500 - 60,999	.9948	.9992	.0044
61,500 - 61,999	.9951	.9992	.0041
64,500 - 64,999	.9954	.9994	.0040
65,000 - 65,499	.9960	.9995	.0035
68,000 - 68,499	.9963	.9996	.0033
71,000 - 71,499	.9966	.9997	.0031
71,500 - 71,999	.9969	.9997	.0028
74,500 - 74,999	.9972	.9998	.0026
76,000 - 76,499	.9976	.9998	.0022
77,500 - 77,999	.9979	.9998	.0019
88,500 - 88,999	.9982	.9999	.0017
90,000 - 90,499	.9985	.9999	.0014
94,000 - 94,499	.9988	1.0000	.0012
95,000 - 95,499	.9991	1.0000	.0009
98,000 - 98,499	.9994	1.0000	.0006
102,000 - 102,499	.9997	1.0000	.0003
186,000 - 186,499	1.0000	1.0000	.0000

Exhibit 16
Sheet 1

MAJOR PERMANENT PARTIAL - 1961

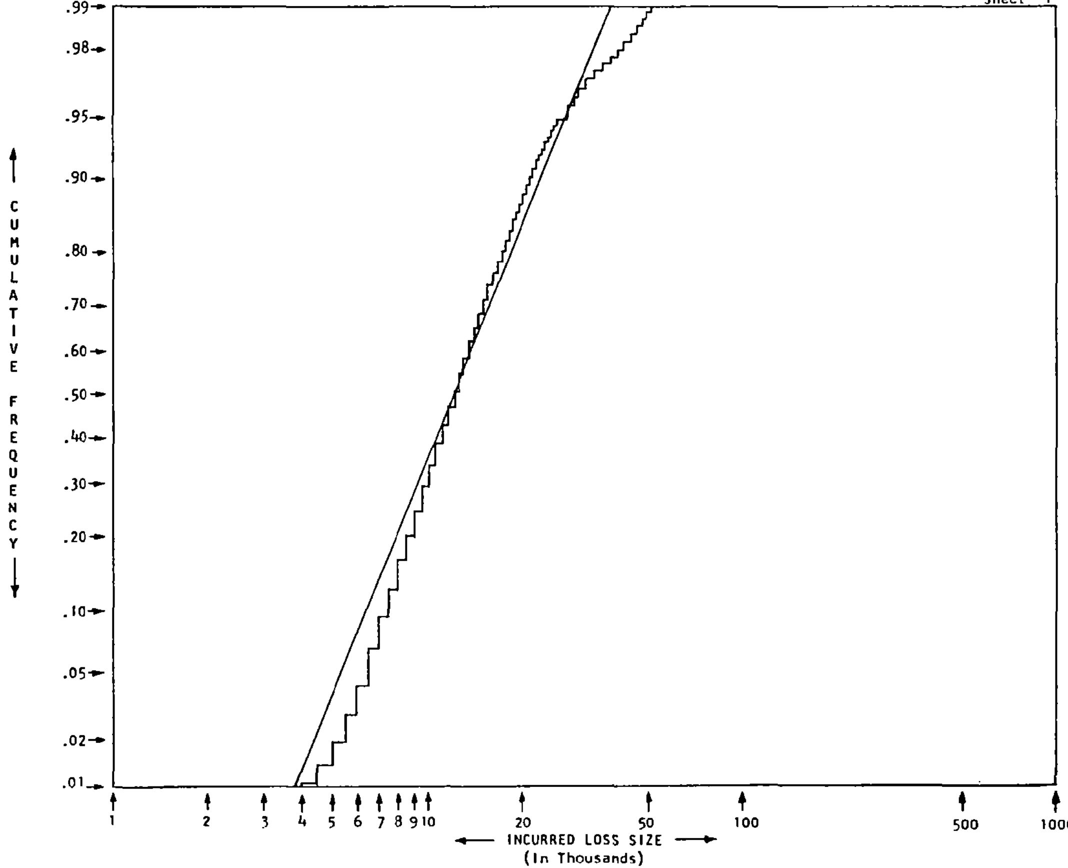


Exhibit 16
Sheet 2

MAJOR PERMANENT PARTIAL - 1961

(1) Loss Size Interval	(2) Cumulative Frequency Observed	(3) Cumulative Frequency Theoretical	(4) Absolute Difference (2)-(3)	(1) Loss Size Interval	(2) Cumulative Frequency Observed	(3) Cumulative Frequency Theoretical	(4) Absolute Difference (2)-(3)
0 - 99	.0006	.0000	.0006	16,500 - 16,999	.8034	.7614	.0420
400 - 499	.0010	.0000	.0010	17,000 - 17,499	.8195	.7795	.0400
700 - 799	.0012	.0000	.0012	17,500 - 17,999	.8352	.7961	.0391
900 - 999	.0014	.0000	.0014	18,000 - 18,499	.8521	.8116	.0405
1,000 - 1,499	.0018	.0000	.0018	18,500 - 18,999	.8614	.8260	.0354
1,500 - 1,999	.0022	.0002	.0020	19,000 - 19,499	.8720	.8392	.0328
2,000 - 2,499	.0026	.0007	.0019	19,500 - 19,999	.8845	.8515	.0330
2,500 - 2,999	.0030	.0023	.0007	20,000 - 20,499	.8959	.8629	.0330
3,000 - 3,499	.0053	.0059	.0006	20,500 - 20,999	.9029	.8735	.0294
3,500 - 3,999	.0091	.0123	.0032	21,000 - 21,499	.9109	.8832	.0277
4,000 - 4,499	.0140	.0225	.0085	21,500 - 21,999	.9181	.8921	.0260
4,500 - 4,999	.0195	.0367	.0172	22,000 - 22,499	.9234	.9004	.0230
5,000 - 5,499	.0290	.0554	.0264	22,500 - 22,999	.9283	.9080	.0203
5,500 - 5,999	.0423	.0783	.0360	23,000 - 23,499	.9334	.9151	.0183
6,000 - 6,499	.0660	.1050	.0390	23,500 - 23,999	.9368	.9215	.0153
6,500 - 6,999	.0923	.1353	.0430	24,000 - 24,499	.9410	.9276	.0134
7,000 - 7,499	.1252	.1683	.0431	24,500 - 24,999	.9446	.9331	.0115
7,500 - 7,999	.1619	.2036	.0417	25,000 - 25,499	.9490	.9381	.0109
8,000 - 8,499	.2012	.2404	.0392	25,500 - 25,999	.9518	.9428	.0090
8,500 - 8,999	.2473	.2781	.0308	26,000 - 26,499	.9546	.9472	.0074
9,000 - 9,499	.2940	.3163	.0223	26,500 - 26,999	.9561	.9511	.0050
9,500 - 9,999	.3392	.3545	.0153	27,000 - 27,499	.9576	.9548	.0028
10,000 - 10,499	.3880	.3922	.0042	27,500 - 27,999	.9604	.9583	.0021
10,500 - 10,999	.4309	.4292	.0017	28,000 - 28,499	.9617	.9613	.0004
11,000 - 11,499	.4717	.4651	.0066	28,500 - 28,999	.9642	.9643	.0001
11,500 - 11,999	.5093	.4997	.0096	29,000 - 29,499	.9657	.9669	.0012
12,000 - 12,499	.5532	.5330	.0202	29,500 - 29,999	.9670	.9694	.0024
12,500 - 12,999	.5887	.5647	.0240	30,000 - 30,499	.9687	.9716	.0029
13,000 - 13,499	.6271	.5948	.0323	30,500 - 30,999	.9691	.9737	.0046
13,500 - 13,999	.6579	.6234	.0345	31,000 - 31,499	.9695	.9757	.0062
14,000 - 14,499	.6879	.6503	.0376	31,500 - 31,999	.9703	.9774	.0071
14,500 - 14,999	.7165	.6755	.0410	32,000 - 32,499	.9720	.9791	.0071
15,000 - 15,499	.7447	.6993	.0454	32,500 - 32,999	.9724	.9806	.0082
15,500 - 15,999	.7659	.7214	.0445	33,000 - 33,499	.9730	.9820	.0090
16,000 - 16,499	.7877	.7422	.0455	33,500 - 33,999	.9745	.9833	.0088

Exhibit 16
Sheet 3

MAJOR PERMANENT PARTIAL - 1961

(1) Loss Size Interval	(2) Cumulative Frequency Observed	(3) Cumulative Frequency Theoretical	(4) Absolute Difference (2)-(3)
34,000 - 34,499	.9749	.9845	.0096
34,500 - 34,999	.9753	.9856	.0103
35,000 - 35,499	.9759	.9866	.0107
35,500 - 35,999	.9770	.9876	.0106
36,000 - 36,499	.9778	.9885	.0107
36,500 - 36,999	.9782	.9893	.0111
37,000 - 37,499	.9786	.9900	.0114
38,000 - 38,499	.9790	.9913	.0123
38,500 - 38,999	.9792	.9920	.0128
39,000 - 39,499	.9794	.9926	.0132
39,500 - 39,999	.9805	.9931	.0126
40,000 - 40,499	.9816	.9935	.0119
40,500 - 40,999	.9824	.9940	.0116
41,000 - 41,499	.9830	.9944	.0114
41,500 - 41,999	.9836	.9948	.0112
42,000 - 42,499	.9838	.9951	.0113
42,500 - 42,999	.9842	.9954	.0112
43,000 - 43,499	.9850	.9957	.0107
43,500 - 43,999	.9852	.9960	.0108
44,000 - 44,499	.9854	.9963	.0109
45,000 - 45,499	.9858	.9967	.0109
45,500 - 45,999	.9864	.9970	.0106
46,000 - 46,499	.9872	.9972	.0100
46,500 - 46,999	.9876	.9974	.0098
47,000 - 47,499	.9882	.9975	.0093
47,500 - 47,999	.9890	.9977	.0087
48,000 - 48,499	.9892	.9978	.0086
49,500 - 49,999	.9896	.9982	.0086
50,000 - 50,499	.9898	.9984	.0086
50,500 - 50,999	.9900	.9985	.0085
51,500 - 51,999	.9902	.9987	.0085
52,000 - 52,499	.9904	.9987	.0083
52,500 - 52,999	.9908	.9988	.0080
55,000 - 55,499	.9914	.9991	.0077
55,500 - 55,999	.9916	.9992	.0076

(1) Loss Size Interval	(2) Cumulative Frequency Observed	(3) Cumulative Frequency Theoretical	(4) Absolute Difference (2)-(3)
56,500 - 56,999	.9918	.9993	.0075
57,000 - 57,499	.9920	.9993	.0073
57,500 - 57,999	.9924	.9994	.0070
58,000 - 58,499	.9926	.9994	.0068
59,000 - 59,499	.9930	.9995	.0065
59,500 - 59,999	.9932	.9995	.0063
60,000 - 50,499	.9938	.9995	.0057
60,500 - 60,999	.9942	.9995	.0053
61,500 - 61,999	.9944	.9996	.0052
62,000 - 62,499	.9946	.9996	.0050
63,000 - 63,499	.9948	.9997	.0049
63,500 - 63,999	.9950	.9997	.0047
66,000 - 66,499	.9952	.9998	.0046
67,000 - 67,499	.9954	.9998	.0044
68,500 - 68,999	.9956	.9998	.0042
69,500 - 69,999	.9958	.9998	.0040
70,000 - 70,499	.9960	.9998	.0038
71,500 - 71,999	.9962	.9998	.0036
72,000 - 72,499	.9964	.9998	.0034
73,000 - 73,499	.9966	.9999	.0033
75,000 - 75,499	.9970	.9999	.0029
76,000 - 76,499	.9972	.9999	.0027
77,000 - 77,499	.9976	.9999	.0023
78,500 - 78,999	.9978	.9999	.0021
80,500 - 80,999	.9980	1.0000	.0020
83,000 - 83,499	.9982	1.0000	.0018
86,500 - 86,999	.9984	1.0000	.0016
89,000 - 89,499	.9986	1.0000	.0014
91,500 - 91,999	.9988	1.0000	.0012
98,000 - 98,499	.9990	1.0000	.0010
99,000 - 99,499	.9992	1.0000	.0008
100,000 - 100,499	.9994	1.0000	.0006
122,000 - 122,499	.9996	1.0000	.0004
174,500 - 174,999	.9998	1.0000	.0002
188,000 - 188,499	1.0000	1.0000	.0000

Exhibit 17
Sheet 1

MINOR PERMANENT PARTIAL - 1960

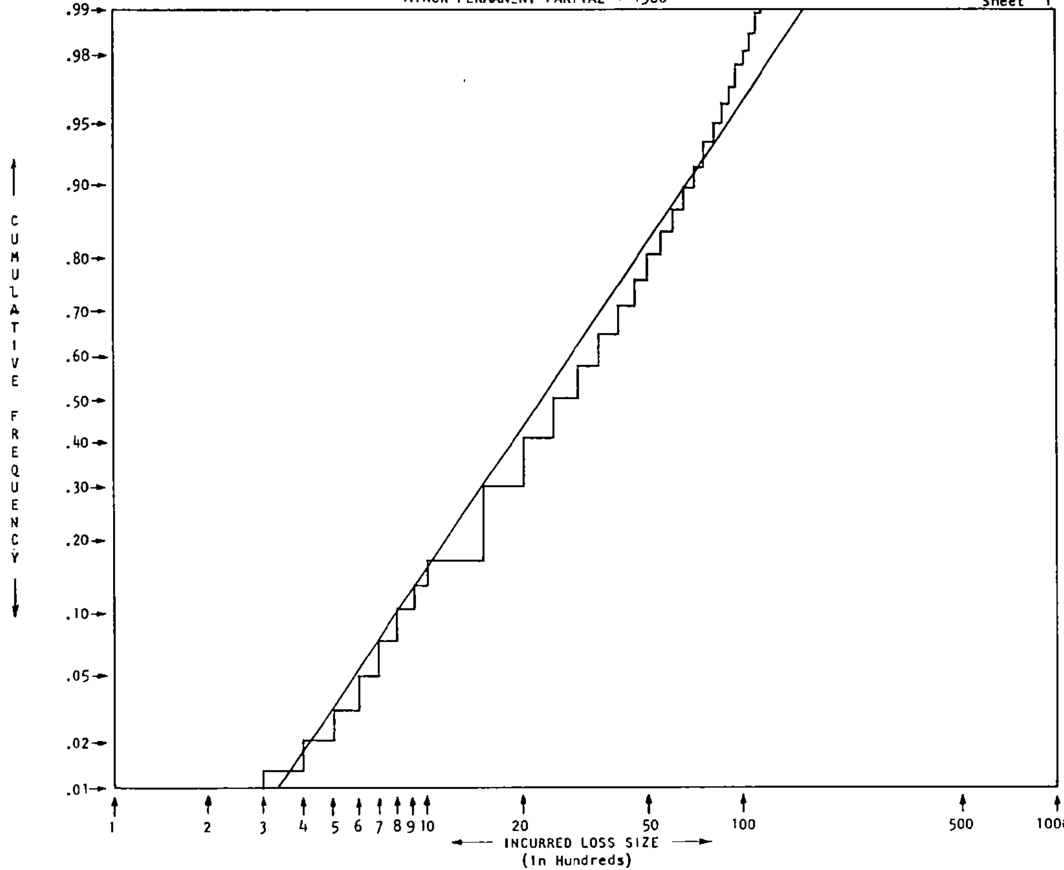


Exhibit 17
Sheet 2

MINOR PERMANENT PARTIAL - 1960

(1) Loss Size Interval	(2) Cumulative Frequency Observed	(3) Cumulative Frequency Theoretical	(4) Absolute Difference (2)-(3)
0 - 99	.0022	.0001	.0021
100 - 199	.0064	.0017	.0047
200 - 299	.0123	.0074	.0049
300 - 399	.0211	.0183	.0028
400 - 499	.0318	.0342	.0024
500 - 599	.0501	.0544	.0043
600 - 699	.0749	.0779	.0030
700 - 799	.1059	.1042	.0017
800 - 899	.1383	.1320	.0063
900 - 999	.1702	.1609	.0093
1,000 - 1,499	.3046	.3067	.0021
1,500 - 1,999	.4155	.4364	.0209
2,000 - 2,499	.5084	.5426	.0342
2,500 - 2,999	.5837	.6278	.0441
3,000 - 3,499	.6527	.6950	.0423
3,500 - 3,999	.7129	.7486	.0357
4,000 - 4,499	.7640	.7913	.0273
4,500 - 4,999	.8051	.8259	.0208
5,000 - 5,499	.8411	.8536	.0125
5,500 - 5,999	.8707	.8762	.0055
6,000 - 6,499	.8983	.8948	.0035
6,500 - 6,999	.9187	.9101	.0086
7,000 - 7,499	.9365	.9226	.0139
7,500 - 7,999	.9503	.9333	.0170
8,000 - 8,499	.9609	.9421	.0188
8,500 - 8,999	.9689	.9497	.0192
9,000 - 9,499	.9757	.9561	.0196
9,500 - 9,999	.9814	.9614	.0200
10,000 - 10,499	.9868	.9661	.0207
10,500 - 10,999	.9899	.9700	.0199
11,000 - 11,499	.9924	.9735	.0186
11,500 - 11,999	.9940	.9765	.0175
12,000 - 12,499	.9955	.9791	.0164
12,500 - 12,999	.9966	.9813	.0153
13,000 - 13,499	.9973	.9833	.0140
13,500 - 13,999	.9978	.9850	.0128
14,000 - 14,499	.9983	.9865	.0118
14,500 - 14,999	.9986	.9879	.0107
15,000 - 15,999	.9990	.9901	.0089
16,000 - 16,499	.9993	.9911	.0082
16,500 - 16,999	.9995	.9919	.0076
17,000 - 17,999	.9996	.9932	.0064
18,000 - 18,999	.9997	.9944	.0053
19,000 - 19,499	.9999	.9949	.0050
20,500 - 23,499	1.0000	.9974	.0026

Exhibit 18
Sheet 1

MINOR PERMANENT PARTIAL - 1961

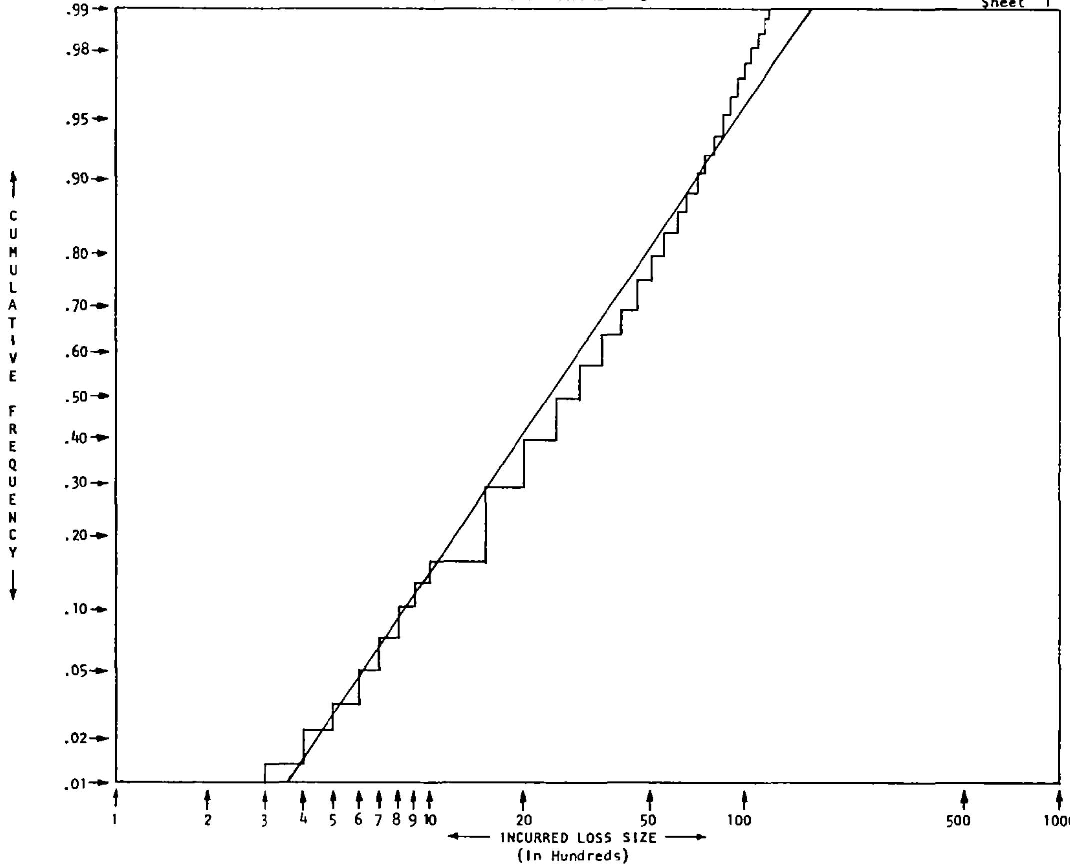


Exhibit 18
Sheet 2

MINOR PERMANENT PARTIAL — 1961

(1) Loss Size Interval	(2) Cumulative Frequency Observed	(3) Cumulative Frequency Theoretical	(4) Absolute Difference (2)-(3)
0 - 99	.0022	.0000	.0022
100 - 199	.0063	.0018	.0045
200 - 299	.0134	.0073	.0061
300 - 399	.0221	.0179	.0042
400 - 499	.0325	.0332	.0007
500 - 599	.0507	.0526	.0019
600 - 699	.0741	.0754	.0013
700 - 799	.1021	.1005	.0016
800 - 899	.1323	.1272	.0051
900 - 999	.1609	.1551	.0058
1,000 - 1,499	.2905	.2965	.0060
1,500 - 1,999	.3995	.4230	.0235
2,000 - 2,499	.4951	.5278	.0327
2,500 - 2,999	.5725	.6124	.0399
3,000 - 3,499	.6409	.6800	.0391
3,500 - 3,999	.6991	.7343	.0352
4,000 - 4,499	.7524	.7780	.0256
4,500 - 4,999	.7962	.8132	.0170
5,000 - 5,499	.8318	.8420	.0102
5,500 - 5,999	.8621	.8655	.0034
6,000 - 6,499	.8862	.8849	.0013
6,500 - 6,999	.9074	.9011	.0063
7,000 - 7,499	.9250	.9146	.0104
7,500 - 7,999	.9390	.9259	.0131
8,000 - 8,499	.9520	.9354	.0166
8,500 - 8,999	.9614	.9435	.0179
9,000 - 9,499	.9703	.9504	.0199
9,500 - 9,999	.9760	.9564	.0196
10,000 - 10,499	.9814	.9614	.0200
10,500 - 10,999	.9852	.9658	.0194
11,000 - 11,499	.9885	.9696	.0189
11,500 - 11,999	.9906	.9729	.0177
12,000 - 12,499	.9925	.9758	.0167
12,500 - 12,999	.9942	.9783	.0159
13,000 - 13,499	.9953	.9805	.0148
13,500 - 13,999	.9963	.9825	.0138
14,000 - 14,499	.9970	.9842	.0128
14,500 - 14,999	.9974	.9857	.0117
15,000 - 15,499	.9980	.9870	.0110
15,500 - 15,999	.9982	.9883	.0099
16,000 - 16,499	.9984	.9894	.0090
16,500 - 16,999	.9986	.9903	.0083
17,000 - 17,499	.9990	.9911	.0079
17,500 - 17,999	.9992	.9919	.0073
18,000 - 18,999	.9994	.9932	.0062
19,000 - 19,499	.9995	.9938	.0057
20,000 - 20,999	.9996	.9952	.0044
21,000 - 22,999	.9997	.9965	.0032
24,000 - 24,499	.9998	.9972	.0026
25,000 - 25,999	.9999	.9977	.0022
34,000 - 35,499	1.0000	.9993	.0007

Exhibit 19
Sheet 1

TEMPORARY - 1960

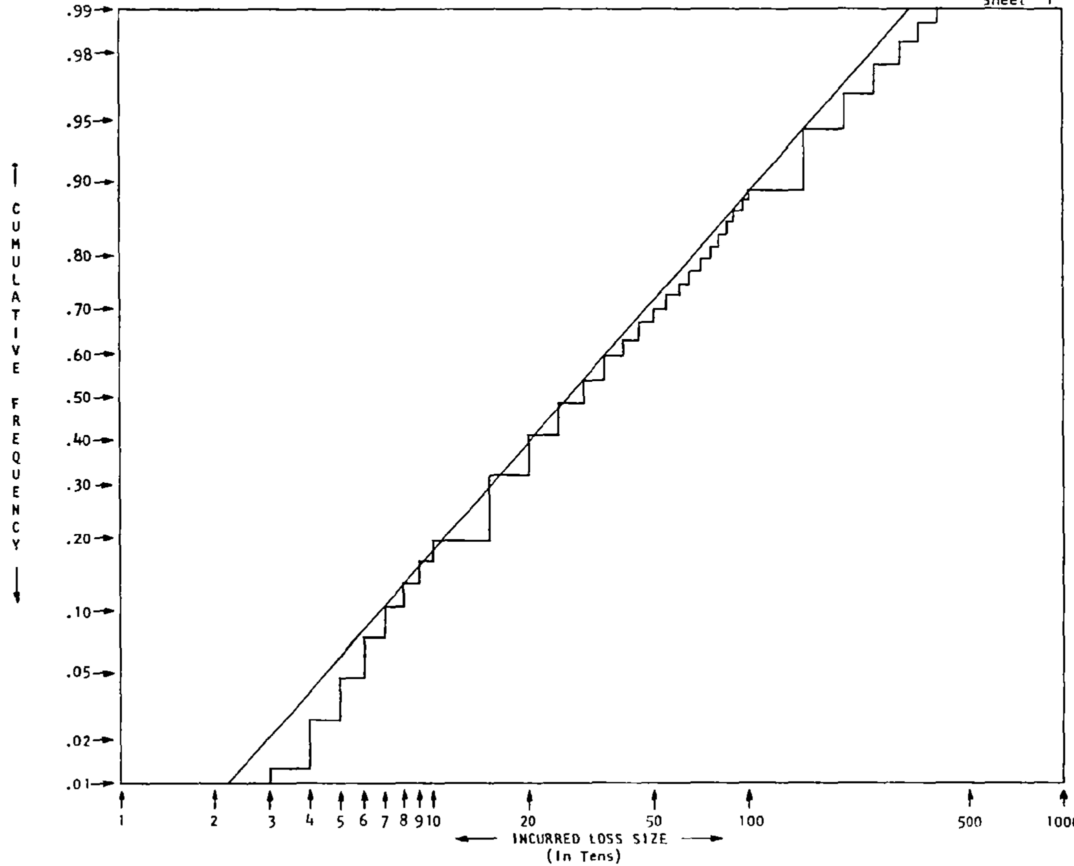


Exhibit 19
Sheet 2

TEMPORARY - 1960

(1) Loss Size Interval	(2) Cumulative Frequency Observed	(3) Cumulative Frequency Theoretical	(4) Absolute Difference (2)-(3)
0 - 9	.0017	.0009	.0008
10 - 19	.0052	.0076	.0024
20 - 29	.0132	.0208	.0076
30 - 39	.0272	.0387	.0115
40 - 49	.0488	.0599	.0111
50 - 59	.0756	.0829	.0073
60 - 69	.1049	.1069	.0020
70 - 79	.1353	.1316	.0037
80 - 89	.1658	.1564	.0094
90 - 99	.1946	.1809	.0137
100 - 149	.3211	.2956	.0255
150 - 199	.4143	.3928	.0215
200 - 249	.4880	.4737	.0143
250 - 299	.5442	.5402	.0040
300 - 349	.5958	.5960	.0002
350 - 399	.6361	.6428	.0067
400 - 449	.6727	.6822	.0095
450 - 499	.7022	.7160	.0138
500 - 549	.7289	.7448	.0159
550 - 599	.7513	.7698	.0185
600 - 649	.7754	.7916	.0162
650 - 699	.7956	.8106	.0150
700 - 749	.8153	.8272	.0119
750 - 799	.8345	.8418	.0073
800 - 849	.8523	.8549	.0026
850 - 899	.8676	.8665	.0011
900 - 949	.8812	.8770	.0042
950 - 999	.8915	.8863	.0052
1,000 - 1,499	.9437	.9428	.0009
1,500 - 1,999	.9634	.9673	.0039
2,000 - 2,499	.9748	.9797	.0049
2,500 - 2,999	.9822	.9866	.0044
3,000 - 3,499	.9869	.9908	.0039
3,500 - 3,999	.9901	.9934	.0033
4,000 - 4,499	.9925	.9952	.0027
4,500 - 4,999	.9941	.9963	.0022
5,000 - 5,499	.9955	.9972	.0017
5,500 - 5,999	.9966	.9978	.0012
6,000 - 6,499	.9973	.9982	.0009
6,500 - 6,999	.9977	.9986	.0009
7,000 - 7,499	.9983	.9989	.0006
7,500 - 7,999	.9986	.9991	.0005
8,000 - 8,499	.9990	.9992	.0002
8,500 - 8,999	.9993	.9994	.0001
9,000 - 9,999	.9994	.9995	.0001
10,000 - 10,999	.9996	.9997	.0001
11,000 - 12,999	.9998	.9998	.0000
13,000 - 16,499	.9999	.9999	.0000
17,000 - 33,999	1.0000	1.0000	.0000

Exhibit 20
Sheet 1

TEMPORARY - 1961

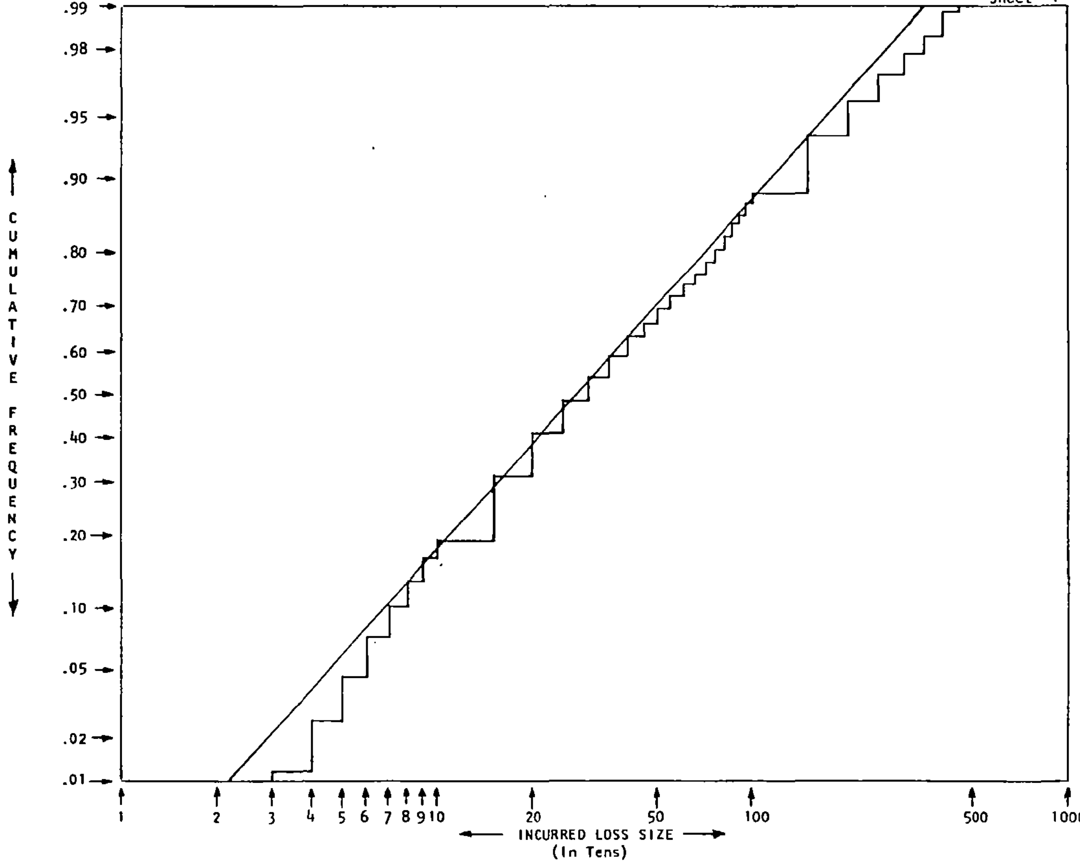


Exhibit 20
Sheet 2

TEMPORARY - 1961

(1) Loss Size Interval	(2) Cumulative Frequency Observed	(3) Cumulative Frequency Theoretical	(4) Absolute Difference (2)-(3)	(1) Loss Size Interval	(2) Cumulative Frequency Observed	(3) Cumulative Frequency Theoretical	(4) Absolute Difference (2)-(3)
0 - 9	.0012	.0010	.0002	900 - 949	.8731	.8720	.0011
10 - 19	.0042	.0078	.0036	950 - 999	.8836	.8815	.0021
20 - 29	.0119	.0209	.0090	1,000 - 1,499	.9388	.9396	.0008
30 - 39	.0256	.0387	.0131	1,500 - 1,999	.9599	.9651	.0052
40 - 49	.0470	.0595	.0125	2,000 - 2,499	.9720	.9781	.0061
50 - 59	.0738	.0823	.0085	2,500 - 2,999	.9792	.9855	.0063
60 - 69	.1041	.1060	.0019	3,000 - 3,499	.9847	.9899	.0052
70 - 79	.1342	.1303	.0039	3,500 - 3,999	.9883	.9928	.0045
80 - 89	.1648	.1547	.0101	4,000 - 4,499	.9912	.9946	.0034
90 - 99	.1939	.1789	.0150	4,500 - 4,999	.9932	.9960	.0028
100 - 149	.3185	.2919	.0266	5,000 - 5,499	.9948	.9968	.0020
150 - 199	.4129	.3879	.0250	5,500 - 5,999	.9959	.9975	.0016
200 - 249	.4861	.4678	.0183	6,000 - 6,499	.9967	.9981	.0014
250 - 299	.5438	.5341	.0097	6,500 - 6,999	.9973	.9984	.0011
300 - 349	.5931	.5895	.0036	7,000 - 7,499	.9977	.9987	.0010
350 - 399	.6336	.6360	.0024	7,500 - 7,999	.9981	.9989	.0008
400 - 449	.6671	.6755	.0084	8,000 - 8,499	.9985	.9991	.0006
450 - 499	.6955	.7093	.0138	8,500 - 8,999	.9988	.9993	.0005
500 - 549	.7226	.7383	.0157	9,000 - 9,499	.9990	.9994	.0004
550 - 599	.7451	.7634	.0183	9,500 - 9,999	.9992	.9995	.0003
600 - 649	.7674	.7853	.0179	10,000 - 10,499	.9994	.9995	.0001
650 - 699	.7871	.8045	.0174	10,500 - 10,999	.9995	.9996	.0001
700 - 749	.8071	.8214	.0143	11,000 - 11,999	.9997	.9997	.0000
750 - 799	.8264	.8364	.0100	12,000 - 12,999	.9998	.9998	.0000
800 - 849	.8438	.8496	.0058	13,000 - 14,999	.9999	.9999	.0000
850 - 899	.8596	.8614	.0018	15,000 - 20,499	1.0000	1.0000	.0000

Exhibit 21

CHARACTERISTICS OF THE
SIZE OF LOSS DISTRIBUTIONS FOR
PERMANENT DISABILITY AND TEMPORARY CASES

Type of Injury	Policy Year	Number of Cases	Mean	Standard Deviation	D_n	$D_n^{.05}$	Result of K-test
Permanent Total	1960	46	4.95667	.26967	.083	.201	accept
	1961 - "a"	57	4.93985	.30200	.134	.180	accept
	1961 - "b"	56	4.96976	.20460	.102	.182	accept
Major	1960	3,271	4.06335	.22971	.085	.024	reject
	1961	4,721	4.07928	.21256	.046	.020	reject
Minor	1960	20,554	3.35888	.36261	.044	.009	reject
	1961	24,613	3.37215	.36719	.040	.009	reject
Temporary	1960	55,372	2.42763	.47380	.026	.006	reject
	1961	60,398	2.43481	.47759	.027	.006	reject

$$D_n = \max_x \left| F(x) - S_n(x) \right|$$

$$D_n^{.05} = 1.36 \div n^{\frac{1}{2}}$$