A REVIEW OF THE EXPERIENCE OF MASSACHUSETTS WORKMEN'S COMPENSATION EXPERIENCE RATED RISKS

BY

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Introduction

Experience Rating Plans for Workmen's Compensation insurance have been in effect in Massachusetts since 1916. Although these plans have varied considerably, the present Plan, which is the 1940 National Council Experience Rating Plan, has been in effect in Massachusetts since December 31, 1940 without substantial revision with respect to basic underlying principles. Inasmuch as this Plan has been in effect for a number of years, many concepts have developed, some of which stem more from underwriting usage than from statistical fact.

Where at one time the selection of a risk was to a great extent dependent on the risk's loss ratio, now one of the principal factors seems to be whether or not the risk is a "debit" risk or a "credit" risk under the Experience Rating Plan. Opinion ranges from complete reluctance of writing risks with debit modifications to the concept that it is much better, or at least safer, to write "credit" risks. This does not necessarily imply that all underwriters look askance at debit risks. On the contrary, there are some "venturesome" underwriters who concentrate their attention on debit risks and, where other things are equal, prefer writing debit risks. This philosophy is that the risks have had their fortuitous losses and should have good future experience. Nevertheless, in general, there appears to be a natural hesitancy to underwrite high rated risks whether it be due to high individual modifications or high hazard classifications.

The concept that it is safer to write credit risks stems from the fact that in any ratemaking procedures, past experience suitably adjusted and projected, if necessary, is used to determine the price of insurance. In the case of individual risk experience rating, a body of past experience, usually three years, is used to determine the relationship of the individual risk experience to the experience of all risks classified in a similar manner. For the most part, if a risk has better than average experience, a credit modification will result, and conversely if the risk has worse than average experience a debit modification will result. That such is not always the case is due more to a definition of what constitutes better or worse experience.

To some, the loss ratio is the determining factor. This relationship of losses incurred to premiums is naturally of considerable importance in the insurance business on an overall basis; however, on an individual risk basis, the losses must be considered with respect to the elements of frequency and severity. A risk with a high frequency of small losses and with a low loss ratio can be considered much less desirable than a risk with low frequency of large losses with a high loss ratio unless, of course, consistency of one or the other is such to establish credible evidence that the risk does not fall within the normal pattern.

Under the Experience Rating Plan, the degree to which a risk is considered better or worse than average is measured more by the frequency of losses than by the severity of the losses. It does not always follow that a risk with a high loss ratio is a debit risk or that a risk with a low loss ratio is a credit risk under the Experience Rating Plan. And so, depending upon who is making the decision, the desirability of writing a risk is not always judged by the same criteria.

Theoretically, the Experience Rating Plan is designed to bring the loss ratios of all eligible risks more closely to the average all risk loss ratio. Assuming that the manual rates are correct, that is, that they will reproduce the permissible loss ratio, then all of the credit risks should reproduce the permissible loss ratio, and equally all of the debit risks should reproduce the permissible loss ratio. If the Plan is meeting this objective, then the concept that it is less desirable to write debit risks is clearly wrong.

Preparation of Necessary Data

To statistically investigate this concept, it was necessary to either sample a proper number of experience rated risks and review the experience of these risks over many years, or to review all of the experience of experience rated risks for a given period. Inasmuch as a random sample of experience rated risks would produce a large number of small risks, i.e., risks which just meet the eligibility requirement and therefore have low credibility assigned to their experience and which would require many years of review to attain credible results, it was decided to review the experience of all risks for a given policy year*. The year chosen was 1955 policy year, being the latest complete policy year of experience available.

After deciding to use 1955 policy year as the study year, it was necessary to use two sets of statistical data. First, cards are punched from the statistical data which are developed from the experience rating calculation sheets. These data are used primarily to test the "off-balance" of the Plan and to test the ratios of primary to total losses which are reviewed annually in connection with the filing of rates, expected loss rates and primary ratios. These cards contain the necessary identification data by risk together with the actual and expected incurred losses broken down into primary, excess and total together with the risk modification factor which was the important element in so far as this study was concerned. Secondly, the individual risk experience is punched on cards from the unit statistical reports filed with the Bureau under the Workmen's Compensation Statistical Plan. The volume represented over 14,000 individual experience rating statistical cards and more than 70,000 individual risk experience cards punched from the unit statistical reports.

Since the premium reported on the unit reports is a standard pre-

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* Of the risks eligible for experience rating in Massachusetts, 42% are of an annual premium size of between $500 and $1,000 but constitute only 9% of the premium volume eligible for rating.

mium, i.e., including the effect of the experience rating modifications but excluding the effect of premium discounts and the retrospective rating plans, and the card punched therefrom does not include the experience rating modification, it was first necessary to match the unit cards with the experience rating statistical cards in order to be able to transfer the modification from the experience rating statistical card to the unit risk card. To properly determine the effects of the experience rating plan, it required a comparison of the risk experience on a manual premium basis and on a modified premium basis.

An interesting side result of this first operation was the fact that of approximately 14,700 experience rating statistical cards, some 400 did not match to a unit risk card. In other words, some 400 rating modifications were promulgated which were not applied to risks. An investigation of these risks indicated that most of the risks were interstate rated risks for which no Massachusetts exposure developed. Of the remaining, some had gone out of business or had material changes of ownership.

The next step in the processing of the data was to calculate for each risk the unmodified premium or manual premium. This was accomplished by dividing each risk's modified premium by the risk's modification. At this point, the punch card for each risk contained the essential identifying data; Payroll, Standard Premium, Experience Rating Modification, "Manual" Premium, Indemnity Losses and Medical Losses. In order to calculate incurred loss ratios, it was necessary to cross foot the Indemnity and Medical Losses to obtain Total Incurred Losses which were then divided by the Standard Premium and the Manual Premium to obtain the Standard Loss Ratio and the Manual Loss Ratio.

These calculations were made on the punch cards of each of the 14,000 plus experience rated risks by using an I.B.M. 602A Calculating Punch. Although the 602A cannot compare in speed or performance with the later versions of electronic computers, it can perform all the necessary basic calculations, and although it required hours of calculating and set-up time, the job would not have been undertaken if the calculations had had to be performed manually.

With all necessary calculations performed, the cards were then ready to be tabulated in any manner that was devised to review the data.

Inasmuch as the intent of this study was to review the entire experience of experience rated risks, it became necessary to segregate the experience of interstate rated risks as the experience of such risks compiled for Massachusetts does not include all of the interstate experience upon which interstate experience rating modifications are based. Although the experience of interstate rated risks is not relevant to the principal purpose of this study, such experience does add to the overall experience rating picture as applicable in Massachusetts.

The experience of the rated risks for 1955 policy year separated as to interstate and intrastate together with the experience of non-rated risks is set forth below:

Type of Risks	(1) No. of Risks	(2) Standard Premium	(3) Manual Premium	(4) Average Modification (2)÷(3)	(5) Losses Incurred	(6) Loss Ratios Standard (5)÷(2)	(7) Loss Ratios Manual (5)÷(3)
Intrastate Rated	11,325	$28,900,641	$27,940,381	1.034	$14,725,920	.510	.527
Interstate Rated	3,006	25,680,503	27,917,974	.920	12,610,882	.491	.452
Total Rated	14,331	54,581,144	55,858,355	.977	27,336,802	.501	.489
Non-Rated	56,683	14,141,119	14,141,119	-	7,930,291	.561	.561
Total All Risks	71,014	68,722,263	69,999,474	.982	35,267,093	.513	.504

Interstate Experience Rated Risks

From the above figures it is of interest to note that although the number of interstate rated risks constitutes only 21% of the total number of rated risks, the Massachusetts premium volume of such risks constitutes almost 50% of the total, and that the experience of these large sized interstate risks is substantially better than either the intrastate rated risks or the non-rated risks.

Of particular interest is the difference in the average modification or "off-balance" for the interstate rated risks and the intrastate rated risks. As is well known, in Massachusetts the correction for the off-balance resulting from the application of the Experience Rating Plan is taken up entirely within the Plan; that is, the off-balance factor is applied to every risk modification after calculating the modification but before application of the modification to the manual rates*. In theory then the average modifications would include the off-balance factor which was in 1955 and is currently 1.03. Such is the case with respect to the intrastate rated risks; however, with respect to the interstate rated risks, only that portion of the off-balance which represents the percentage of Massachusetts expected losses to the risks' total all states expected losses is included within the modification. If the interstate modification as applied to the Massachusetts portion included the full Massachusetts off-balance, the difference in the average modifications for intrastate risks of 1.034 and interstate risks of .920 would be less since the interstate risks' average modification of .920 would be higher.

It does not necessarily follow that the total rated average modification, in this instance, .977, upon which the off-balance factor is determined is unreasonably affected by the inclusion of interstate modifications determined in part by experience other than Massachusetts experience. The facts are that the interstate rated risks are on the average much larger risks and that the Massachusetts experience of such risks is much better than the experience of the intrastate rated risks.

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* For Massachusetts rated risks the formula for determining the risk modification is as follows:

$$\text{Modification} = \frac{Ap + B + W\ Ae}{Ep + B + W\ Ee} \times \text{Off-Balance Factor}$$

Where Ap = Primary Actual Losses.
     B = The B Value, stabilizing element, or ballast, for each risk.
     W = A specified percentage applicable to the excess losses for each risk in order to bring excess losses back into the rating formula.
     Ae = The excess of the risk actual losses over the primary actual losses.
     Ep = Primary Expected Losses.
     Ee = The excess of the risk undiscounted expected losses over the primary expected losses.

The procedure, whereby the Massachusetts off-balance factor is included within the overall interstate experience rating, was adopted presumably to have the same modification apply to all of the states' rates of an interstate risk rather than have a separate modification for application to Massachusetts rates which would result if the off-balance factor of 1.03 were applied to the interstate modification for the Massachusetts application. Under this procedure the effect of the Massachusetts off-balance factor is charged to the risk but on an overall interstate premium basis, and such procedure assumes that the distribution of expected losses of the experience period will remain unchanged through the period to which the modification applies. The method is obviously an attempt to make the best of an administrative difficulty brought about by a Massachusetts exception; however, the solution does result in producing a quirk with respect to the Massachusetts experience rating statistics. The more obvious solution, of course, is to eliminate the Massachusetts exception.

Correction for Experience Rating Off-Balance

The fact that the correction for the off-balance resulting from the application of the Experience Rating Plan is applied only to the premiums of experience rated risks in Massachusetts has caused certain controversy and practical administrative difficulties, particularly with the adoption of interstate experience rating in Massachusetts as outlined above. Inasmuch as this study was not primarily aimed at the off-balance problem, it is not appropriate to attempt to review all of the arguments both pro and con with respect to this problem. However, as an additional result to the review of the actual experience of 1955 policy year experience rated risks, it becomes obvious that the experience of experience rated risks is much better than the experience of non-rated risks. The manual loss ratio of the rated risks for 1955 policy year is .489, whereas the loss ratio of the non-rated risks is .561. Whether the better experience of the rated risks is due to the fact that they are rated or because the rated risks are of a larger premium size does not alter the fact that the experience is better and that loading of the correction for off-balance, which is due for the most part to this difference in experience on the better risks, does not seem to coincide with the ratemaking standard of charging costs as accurately as possible in the way in which they are incurred.

The application of the off-balance factor to the modification occasionally produces a rather difficult situation; that is, the situation whereby a risk with clear loss experience is subject to a debit modification. This is not a frequent occurrence and can only occur where risks have small premium volume and the applicable classifications have low primary expected losses. That it occurs at all can be somewhat embarrassing, particularly if a risk requests an explanation of his experience rating modification. And even though the situation rarely happens, it does point up the irrationality of taking up the off-balance exclusively in the plan. To put it another way, a risk which

just meets the eligibility requirements of the plan may pay more than manual premium even though under the theoretical operation of the plan it should pay less than manual premium. Whereas, the risk which just fails to meet the eligibility requirements is subject to manual premiums regardless of its past experience.

A situation which somewhat parallels this Massachusetts Workmen's Compensation procedure for the correction for off-balance is the procedure for offsetting the short term charges applied to vehicles insured after the first of the year for Compulsory Automobile Liability Insurance. This is again a unique Massachusetts application since all Massachusetts motor vehicle compulsory liability policies expire on December 31. In this instance, the experience of risks insured after the first of the year is considerably worse than the experience of those vehicles insured as of January 1, and such experience is reflected to some extent by increased charges in the short term table. To offset the increased premium collected from the application of the short term charges, the manual rates are reduced by a factor which measures the difference between the pro rata premium and the short term premium*. It would appear then that the only time a correction or offset factor can be applied to manual rates is when such factor is negative and will reduce manual rates.

Experience of Experience Rated Risks by Interval of Modification

The table of experience rating statistics based on the data used to determine the modifications is set forth in Exhibit 1 for intrastate rated risks by interval of modification. Exhibit 1A sets forth similar data for the Massachusetts portion of interstate rated risks. These statistics are based on policy years 1951, 1952 and 1953 from which the experience modifications were calculated to apply to the premium of policies written for 1955 policy year. These data for intrastate rated risks which indicate that for "credit" risks the ratio of actual losses to expected losses was .345, and that for "debit" risks was 1.797, tend to give the impression that it is not only better to write a "credit" risk, but dangerous to write a "debit" risk, particularly when the average modification for credit risks was only .865 and for debit risks 1.214.

That this impression is deceptive can be well realized when it is noted that the risks categoried as debit or credit are so categoried because their experience for this specific period is better or worse than average, and the future experience of such risks as a whole will not be consistently better or worse. To go to extremes, some credit risks with clear loss experience for the experience period will have losses in the future rate period, and some debit risks with losses during the experience period will have clear loss experience in the future rate

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* Actually the offset factor is calculated by comparing the pro rata premium determined by extending the exposures by the manual rates to the total collected premium. This results not only in offsetting the short term charges, but also the short rate cancellation charges and any minimum premium charges.

period. This fact emphasizes the fickleness of frequency, particularly with respect to the smaller risks. Even though Workmen's Compensation insurance is considered to be a relatively high frequency line of insurance, it does not have a frequency high enough to make it possible to reasonably predict every individual risk's future experience.

To test the actual effect of the Experience Rating Plan, however, the experience of the risks to which the modifications were applied must be reviewed.

A tabulation of the 1955 policy year unit report risk experience cards by interval of modification for the same risks as shown in Exhibits 1 and 1A is set forth in Exhibits 2 and 2A. These tabulations indicate for credit risks and debit risks the number of risks, the Standard Premium as reported, the Manual Premium as calculated, the Incurred Losses and the Incurred Loss Ratios at Manual Premium and Standard Premium. These tabulations set forth, therefore, the actual 1955 policy year experience by the modifications actually applied to the premiums of that year, such modifications having been developed from the individual risk experience of policy years 1951, 1952 and 1953.

A summary of the figures shown in Exhibit 2 is set forth below:

1955 Policy Year Experience
of Massachusetts Intrastate Experience Rated Risks

	(1) No. of Risks	(2) % of Total	(3) Standard Premium	(4) Manual Premium	(5) Average Mod. (3)÷(4)	(6) Incurred Losses	(7) Loss Ratio Standard (6)÷(3)	(8) Loss Ratio Manual (6)÷(4)
Credit	6,018	53	$12,548,103	$14,448,018	.868	$ 6,033,340	.481	.418
Debit	5,307	47	16,352,538	13,492,363	1.212	8,692,580	.532	.644
Total	11,325	100	28,900,641	27,940,381	1.034	14,725,920	.510	.527

From the above experience it is clear that the Experience Rating Plan does play an important role in the determination of the cost of Workmen's Compensation insurance. 6,018 credit risks were charged approximately $1,900,000 less than if the Plan had not been in effect, and debit risks were charged $2,860,000 more. It is also clear from the actual experience that the returns and charges were appropriate for the respective groups.

In the case of the credit risks, the resulting modified loss ratio of .481 was closer to the average manual loss ratio for all experience rated risks of .527, and the permissible loss ratio of .600, than was the manual loss ratio for the credit risks of .418. With respect to the debit risks, the modified loss ratio of .532 was closer to the average manual loss ratio for all experience rated risks of .527; however, the modified loss ratio was not as close to the permissible loss ratio as was the manual loss ratio of .644, nor was the overall modified loss ratio for all experience rated risks of .510 as close to the permissible loss ratio as was the overall manual loss ratio of .527. Thus, one of the objectives of the Plan, that is, to bring the loss ratios of risks more closely to the average loss ratio of all risks by charging more or less premium based on the individual risk's experience, is proven by this experience. More often than not, however, it is stated that the Plan will bring the rated risk loss ratios closer to the permissible loss ratio. This is not so when the actual experience departs from the expected experience or the permissible loss ratio. The above experience does show that the Plan brings the loss ratio of risks rated more closely to the average experience.

This actual experience of intrastate experience rated risks by type of modification also shows that the loss ratio of the credit risks, .481, was better than the loss ratio of the debit risks, .532, indicating that the concept that it is better to write a credit risk is justified on an overall loss ratio basis by these statistics. However, it should not follow from these statistics that it is not safe to write debit risks. On the contrary, the overall loss ratio of the debit risks of .532 compares well with the permissible loss ratio of .600 and the non-rated risk loss ratio of .561, and does not compare too badly with the overall, all risk (rated and non-rated) standard loss ratio of .513. Furthermore, within the all debit risk loss ratio of .532, which consists of 5,307 risks, 4,278 risks or 80.6% have loss ratios under .600 producing an aggregate loss ratio of only .197.

Experience of Experience Rated Risks by Loss Ratio Interval

The complete tabulation of intrastate rated risks by standard loss ratio interval is set forth in Exhibit 3. Exhibit 3A sets forth the experience of the credit risks by standard loss ratio interval, and Exhibit 3B sets forth the experience for the debit risks. These tabulations were made, having determined that with respect to loss ratios the experience of credit risks was better than debit risks, in order to demonstrate that, within the average, risks would vary both upward

and downward ("better" or "worse"), and to determine how many credit risks turned out to be better than average risks and how many debit risks were better than average risks.

As would be expected from any breakdown of a large number of risks in a relatively low frequency line, the individual risk experience covers a wide range with a high percentage of the risks being in the lower end of the range. A review of these statistics for the debit risks might surprise some debit conscious underwriters, particularly the fact that 17.6% of the debit risks had clear loss experience and 61.4% of the risks had loss ratios under 20%. To some, the fact that 15.4% of the credit risks had loss ratios at the permissible loss ratio level or in excess of the permissible level, and that 10.0% of the credit risks had loss ratios in excess of 100.0%, might be cause to question open acceptance of credit risks.

These statistics continue to demonstrate, however, that on the average it was safer to write credit risks. Where 84.6% of the credit risks had loss ratios under the permissible loss ratio, only 80.6% of the debit risks had loss ratios under the permissible loss ratio.

Experience of Experience Rated Risks by Size of Risk

A further look at the experience of experience rated risks is set forth in Exhibits 4 through 9. Exhibits 4 and 5 set forth the data used to determine the modifications by size of Expected Losses broken down for credit risks, debit risks and total debit and credit risks separately for intrastate rated risks and interstate rated risks. Exhibits 6 and 7 set forth the actual experience by standard premium size for credit, debit and total credit and debit risks separately for intrastate and interstate rated risks. Exhibit 8 sets forth the total Massachusetts data upon which the modifications were based for interstate and intrastate rated risks combined by size of expected loss, and Exhibit 9 sets forth the actual Massachusetts experience by standard premium size for the combined interstate and intrastate rated risks.

It has been well established through studies of risk experience by size of risk that the experience of the larger sized risks is more favorable than that of the smaller sized risks. The data set forth in Exhibits 6, 7 and 9 also demonstrate that point, even though these exhibits include only data of experience rated risks. From these exhibits, it can be seen that not only are the manual loss ratios more favorable as the size of risk increases, but also the modified or standard loss ratios are more favorable.

A summary of the figures shown in Exhibit 6 is set forth below:

1955 Policy Year Experience

Massachusetts Intrastate Experience Rated Risks

By Standard Premium Size

Standard Premium Size	No. of Risks	Standard Premium	Average Standard Premium	Manual Premium	Average Manual Premium	Losses Incurred	Loss Ratios		Average Modifi- cation
							Stand.	Man.	
Under $1,000	4,343	2,861,827	659	2,844,379	655	1,643,184	.574	.578	1.006
$1,000 & Over	6,982	26,038,814	3,729	25,096,002	3,594	13,082,736	.502	.521	1.038
Total	11,325	28,900,641	2,552	27,940,381	2,467	14,725,920	.510	.527	1.034

These figures again emphasize the inequity of applying the off-balance of the Experience Rating Plan entirely to experience rated risks. They also indicate that despite the fact that the eligibility requirements have been shrinking through the impact of inflation, the plan as applied to the smaller risks is accomplishing its purpose of bringing the loss ratios closer to the average or permissible loss ratio.

The fact that each year more risks become eligible for experience rating, and hence a consequent additional expense is incurred, does not offset the practical advantages of having more risks experience rated just as long as the plan is effectively accomplishing its purpose. Experience rating is a form of merit rating and, as is well known, the demand for merit rating is increasing, particularly in lines of compulsory social insurance.

With the growth of social insurance, the enactment of benefit increases and the apparent attendant growth of trade and professional associations, more insurance customers are taking a closer look at the costs of insurance. The explanation of how the costs of insurance are determined is not easily absorbed by the ordinary individual. The use of averages is always "unfavorable" to an irate risk. But the modification of the average to the risk's individual experience, is usually greeted by the risk with the feeling of receiving special attention. The knowledge that the cost of insurance can be in some degree controlled by an individual provides many practical and psychological benefits to the risk and to the insurance industry.

As more risks become eligible for experience rating and understand the effects of experience rating, the less intense becomes the problem of the insurance industry with respect to the filing of rate changes and the subsequent processes that attend such requests for changes. The administrators of trade associations, who interpret their responsibilities to their membership as requiring their vigorous opposition to any rate change whether it be up—"unreasonable"—or down—"not enough", are less apt to push their opposition to the full extent when they realize the effects of experience rating. That experience rating can cause wide risk variations within a classification or within an individual risk from year to year is more acceptable when it is realized that the individual risk can, to some extent, control these variations. With approximately 80% of the premium volume now affected by experience rating, proposed manual or base rate changes become less significant to the rated risk or the trade associaton which might otherwise condemn the insurance industry just on general principles.

To the degree then that the Experience Rating Plan has become universally accepted and has whetted the appetite of those hungry for merit rating, it is important that the Plan be carefully and periodically reviewed to see that it continues to fulfill its objectives, both to the insurance industry and the insurance customers. The fact that the ratio of primary losses to total losses is dropping constantly, so that now less than 50% of the losses are primary losses, requires a revaluation of the relationships and the resulting factors and values of the

plan. Also, the spread between a debit loss ratio of .532 and a credit loss ratio of .481, although not a serious imbalance, does indicate that perhaps the plan could be brought more closely into balance, particularly in the area of the small risks which barely meet the eligibility requirements. It is in this area where the largest number of risks are rated and also where the standard loss ratio is higher. It is also interesting to note from Exhibit 3 that the risks with clear experience are of a considerably smaller average premium size. These facts seem to indicate that for these small risks the debit modifications for risks with losses are not high enough to offset the credit risks with clear experience, or, to put it another way, not enough of the losses are being used in the ratings.

Throughout this entire study of the experience of experience rated risks, the principal goal has been to establish whether or not the reluctance of some underwriters to accept debit risks had any foundation in statistical fact. The study stemmed partially from administering an experience rating plan where contact with underwriters seeking experience rating information on individual risks has led to the conclusion that, in many instances, the deciding factor as to whether or not a risk is acceptable, depends on whether or not the risk has a debit modification and to what degree. Of course, the concept that it is not wise to accept debit risks, or that it is better to write credit risks, has been viewed with a somewhat critical eye inasmuch as it does not coincide with the underlying and objective theory of the plan. The plan should be in balance theoretically. The modified loss ratio of all the credit risks should not be any better than the modified loss ratio of all the debit risks.

That the results of this study indicated that the loss ratio of the credit risks was better than the loss ratio of the debit risks was somewhat disturbing from the point of view of trying to prove a point, and yet, the closeness to the average of all debit and credit risks more than justified the application of the plan. It seems somewhat amazing that a mathematical plan can work so effectively, particularly where psychological elements are involved. For example, are not some credit risks apt to rest on their laurels and let down on safety standards, and are not some debit risks apt to become discouraged and decide that the additional insurance charge is a smaller price to pay than the price of adopting more rigid safety standards? However, the Plan, even with this imbalance between the experience of debit and credit risks, is certainly better than no plan at all. For the most part the Plan does function as it was designed to function. The use of past experience of a risk as a guide to predicting the future experience of such a risk is more than amply justified by a review of these statistics.

Whatever the cause for this imbalance, the experience of the debit risks is not sufficiently worse to cause a blanket rejection of all debit risks. It might better be said that the experience of credit risks is somewhat better than that of the debit risks inasmuch as the experience of the debit risks for this policy year is certainly favorable

and, that as a whole, such experience would make a nice underwriting portfolio. Furthermore, the experience modification is only a guide as to whether or not a risk is desirable or merely acceptable. By no means can a modification derived under the Experience Rating Plan be the only criterion of whether or not a risk is desirable. Many other factors—physical, moral and psychological—have as important or more important a role to play as the experience rating modification. The experience rating modification is merely another guide, one designed to bring a risk's loss ratio more closely to the average loss ratio. It is not infallible. With proper underwriting and engineering, it can continue to be a profitable guide.

EXHIBIT 1

1955 Policy Year
Experience Rating Statistics

By Interval of Modification

Intrastate Rated Risks

Modification Interval	(1) No. of Ratings	(2) Actual Losses	(3) Expected Losses	(4) Average Size of Expected Losses	(5) Modified Expected Losses	(6) Ratio: Actual to Expected Losses (2)÷(3)	(7) Average Modification (5)÷(3)
.60 & Under	13	195 898	738 461	56 805	366 732	.265	.497
.61 - .65	23	149 306	508 654	22 115	321 483	.294	.632
.66 - .70	48	139 068	615 254	12 818	419 039	.226	.681
.71 - .75	83	206 833	874 761	10 539	641 909	.236	.734
.76 - .80	190	467 814	1 555 724	8 188	1 219 529	.301	.784
.81 - .85	396	999 682	2 778 670	7 017	2 310 497	.360	.832
.86 - .90	810	996 390	3 110 285	3 840	2 746 201	.320	.883
.91 - .95	2 154	1 641 191	4 973 853	2 309	4 631 761	.330	.931
.96 - .99	2 301	1 885 550	4 204 863	1 827	4 086 386	.448	.972
1.00 - 1.04	1 287	2 334 823	3 091 796	2 402	3 150 800	.755	1.019
1.05 - 1.09	933	3 271 253	3 267 998	3 503	3 493 169	1.001	1.069
1.10 - 1.14	671	3 252 993	2 251 625	3 356	2 525 873	1.445	1.122
1.15 - 1.19	633	4 472 278	2 672 476	4 222	3 141 028	1.673	1.175
1.20 - 1.24	538	4 112 704	1 723 583	3 204	2 098 596	2.386	1.218
1.25 - 1.29	321	2 960 092	1 229 987	3 832	1 561 073	2.407	1.269
1.30 - 1.34	256	2 748 794	1 184 407	4 627	1 563 056	2.321	1.320
1.35 - 1.39	172	2 007 375	861 737	5 010	1 178 071	2.329	1.367
1.40 & over	496	8 892 191	2 661 100	5 365	4 285 524	3.342	1.610
Under 1.00	6 018	6 681 732	19 360 525	3 217	16 743 537	.345	.865
1.00 & over	5 307	34 052 503	18 944 709	3 570	22 997 190	1.797	1.214
Total	11 325	40 734 235	38 305 234	3 382	39 740 727	1.063	1.037

EXHIBIT 1A

1955 Policy Year
Experience Rating Statistics

By Interval of Modification

Interstate Rated Risks

Modification Interval	(1) No. of Ratings	(2) Massachusetts Actual Losses	(3) Massachusetts Expected Losses	(4) Average Size of Massachusetts Expected Losses	(5) Modified Expected Losses	(6) Ratio: Actual to Expected Losses (2)÷(3)	(7) Average Modification (5)÷(3)
.60 & Under	60	904 949	2 496 159	41 603	1 136 366	.363	.455
.61 - .65	50	2 641 711	4 281 058	85 621	2 726 133	.617	.637
.66 - .70	81	776 492	1 696 259	20 941	1 162 716	.458	.685
.71 - .75	117	1 437 205	2 254 346	19 268	1 650 181	.638	.732
.76 - .80	165	1 622 185	2 603 840	15 781	2 042 907	.623	.785
.81 - .85	223	2 659 100	3 846 267	17 248	3 171 078	.691	.824
.86 - .90	300	2 901 744	3 733 938	12 446	3 285 193	.777	.880
.91 - .95	338	2 559 971	3 036 920	8 985	2 822 877	.843	.930
.96 - .99	289	2 295 871	2 775 795	9 605	2 704 556	.827	.974
1.00 - 1.04	249	2 590 992	2 474 865	9 939	2 522 779	1.047	1.109
1.05 - 1.09	239	1 952 851	1 855 485	7 764	1 981 613	1.052	1.068
1.10 - 1.14	206	2 249 415	1 783 072	8 656	1 994 651	1.262	1.119
1.15 - 1.19	153	2 366 872	1 750 162	11 439	2 040 237	1.352	1.166
1.20 - 1.24	116	1 966 821	1 200 007	10 345	1 460 422	1.639	1.217
1.25 - 1.29	91	1 618 793	1 030 702	11 326	1 305 231	1.571	1.266
1.30 - 1.34	72	1 116 533	596 350	8 283	783 895	1.872	1.314
1.35 - 1.39	56	909 912	419 062	7 483	572 589	2.171	1.366
1.40 & Over	201	5 444 020	2 268 913	11 288	3 717 022	2.399	1.638
Under 1.00	1 623	17 799 228	26 724 582	16 466	20 702 007	.666	.775
1.00 & Over	1 383	20 216 209	13 378 618	9 674	16 378 439	1.511	1.224
Total	3 006	38 015 437	40 103 200	13 341	37 080 446	.948	.925

EXHIBIT 2

1955 Policy Year

Experience of Experience Rated Risks by Interval of Modification

Intrastate Rated Risks

Modification Interval	(1) No. of Ratings	(2) Standard Premium	(3) Manual Premium	(4) Average Modifi- cation (2)÷(3)	(5) Average Manual Premium Size (3)÷(1)	(6) Incurred Losses	(7) Standard (6)÷(2)	(8) Manual (6)÷(3)
.60 & Under	13	253 994	518 337	.490	39 872	104 768	.412	.202
.61 - .65	23	213 749	338 194	.632	14 704	88 145	.412	.261
.66 - .70	48	270 505	396 796	.682	8 267	136 207	.504	.343
.71 - .75	83	486 127	663 623	.733	7 995	319 332	.657	.481
.76 - .80	190	904 388	1 153 907	.784	6 073	358 282	.396	.310
.81 - .85	396	1 708 368	2 055 704	.831	5 191	794 698	.465	.387
.86 - .90	810	1 964 312	2 224 214	.883	2 746	862 733	.439	.388
.91 - .95	2 154	3 543 690	3 803 620	.932	1 766	1 824 015	.515	.480
.96 - .99	2 301	3 202 970	3 293 623	.972	1 431	1 545 160	.482	.469
1.00 - 1.04	1 287	2 381 351	2 337 931	1.019	1 817	1 303 116	.547	.557
1.05 - 1.09	933	2 485 870	2 325 728	1.069	2 493	1 450 587	.584	.624
1.10 - 1.14	671	1 795 520	1 601 165	1.121	2 386	841 123	.468	.525
1.15 - 1.19	633	2 189 267	1 864 022	1.174	2 945	1 338 285	.611	.718
1.20 - 1.24	538	1 475 246	1 211 101	1.218	2 251	758 613	.514	.626
1.25 - 1.29	321	1 058 015	834 289	1.268	2 599	494 876	.468	.593
1.30 - 1.34	256	1 064 315	806 712	1.319	3 151	566 584	.532	.702
1.35 - 1.39	172	806 836	590 000	1.368	3 430	428 489	.531	.726
1.40 & over	496	3 096 118	1 921 415	1.611	3 874	1 510 907	.488	.786
Under 1.00	6 018	12 548 103	14 448 018	.868	2 401	6 033 340	.481	.418
1.00 & over	5 307	16 352 539	13 492 363	1.212	2 542	8 692 580	.532	.644
Total	11 325	28 900 641	27 940 381	1.034	2 467	14 725 920	.510	.527

EXHIBIT 2A

1955 Policy Year

Experience of Experience Rated Risks by Interval of Modification

Interstate Rated Risks

Modification Interval	(1) No. of Ratings	(2) Standard Premium	(3) Manual Premium	(4) Average Modifi- cation (2)÷(3)	(5) Average Manual Premium Size (3)÷(1)	(6) Incurred Losses	(7) Loss Ratios Standard (6)÷(2)	(8) Loss Ratios Manual (6)÷(3)
.60 & Under	60	840 025	1 825 927	.460	30 432	414 428	.493	.227
.61 - .65	50	1 896 990	2 980 537	.636	59 611	914 217	.482	.307
.66 - .70	81	615 923	1 193 308	.684	14 732	389 338	.477	.326
.71 - .75	117	1 311 812	1 792 462	.732	15 320	519 738	.396	.290
.76 - .80	165	1 420 954	1 813 888	.783	10 993	716 471	.504	.395
.81 - .85	223	2 086 893	2 533 406	.824	11 361	839 589	.402	.331
.86 - .90	300	2 383 289	2 709 429	.880	9 031	1 330 385	.558	.491
.91 - .95	338	1 811 951	1 946 927	.931	5 760	1 002 248	.553	.515
.96 - .99	289	1 774 875	1 821 831	.974	6 304	845 414	.476	.464
1.00 - 1.04	249	1 691 741	1 659 996	1.019	6 667	828 615	.490	.499
1.05 - 1.09	239	1 422 639	1 332 726	1.067	5 576	805 671	.566	.605
1.10 - 1.14	206	1 373 917	1 228 993	1.118	5 966	641 249	.467	.522
1.15 - 1.19	153	1 637 125	1 405 579	1.165	9 187	827 596	.506	.589
1.20 - 1.24	116	996 084	820 184	1.214	7 071	489 138	.491	.596
1.25 - 1.29	91	981 941	775 216	1.267	8 519	530 629	.540	.684
1.30 - 1.34	72	427 535	325 115	1.315	4 515	174 180	.407	.536
1.35 - 1.39	56	399 424	292 011	1.368	5 214	138 163	.346	.473
1.40 & Over	201	2 407 385	1 460 439	1.648	7 266	1 203 813	.500	.824
Under 1.00	1 623	14 342 712	18 617 715	.770	11 471	6 971 828	.486	.374
1.00 & Over	1 383	11 337 791	9 300 259	1.219	6 725	5 639 054	.497	.606
Total	3 006	25 680 503	27 917 974	.920	9 287	12 610 882	.491	.452

EXHIBIT 3

Total Debit and Credit Intrastate Rated Risks
By Standard Loss Ratio Interval

Standard Loss Ratio Interval	(1) No. of Risks	(2) %	(3) Standard Premium	(4) Average Standard Premium Size (3)÷(1)	(5) Manual Premium	(6) Average Manual Premium Size (5)÷(1)	(7) Incurred Losses	(8) Standard Premium Loss Ratio (7)÷(3)	(9) Manual Premium Loss Ratio (7)÷(5)	(10) Average Modification (3)÷(5)
.000	2 390	21.1	$ 2 125 260	$ 889	$ 2 108 205	$ 882	$ —	—	—	1.008
.001 - .199	5 095	45.0	11 972 129	2 350	11 845 374	2 325	981 125	.082	.083	1.011
.200 - .299	777	6.8	3 033 648	3 904	2 859 751	3 681	738 212	.243	.258	1.061
.300 - .399	485	4.3	2 435 822	5 022	2 315 918	4 775	826 542	.339	.357	1.052
.400 - .499	343	3.0	1 442 542	4 206	1 298 449	3 786	663 785	.460	.511	1.111
.500 - .599	279	2.5	1 314 556	4 712	1 236 220	4 431	737 166	.561	.596	1.063
.600 - .699	241	2.1	1 358 675	5 638	1 239 916	5 145	879 046	.647	.709	1.096
.700 - .799	201	1.8	801 219	3 986	746 871	3 716	609 328	.761	.816	1.073
.800 - .899	123	1.1	606 243	4 929	595 845	4 844	513 313	.847	.861	1.017
.900 - .999	123	1.1	516 287	4 197	480 654	3 908	493 798	.956	1.027	1.074
1.000 & Over	1 268	11.2	3 294 260	2 598	3 213 178	2 534	8 283 605	2.515	2.578	1.025
Total	11 325	100.0	28 900 641	2 552	27 940 381	2 467	14 725 920	.510	.527	1.034

Intrastate Rated Risks With Credit Modifications
By Standard Loss Ratio Interval

Standard Loss Ratio Interval	(1) No. of Risks	(2) %	(3) Standard Premium	(4) Average Standard Premium Size (3)÷(1)	(5) Manual Premium	(6) Average Manual Premium Size (5)÷(1)	(7) Incurred Losses	(8) Standard Premium Loss Ratio (7)÷(3)	(9) Manual Premium Loss Ratio (7)÷(5)	(10) Average Modi- fication (3)÷(5)
.000	1 454	24.1	$ 1 228 154	$ 845	$ 1 319 222	$ 907	$ -	-	-	.931
.001 - .199	2 774	46.1	5 700 324	2 055	6 609 787	2 383	440 108	.077	.067	.862
.200 - .299	373	6.2	1 125 663	3 018	1 300 666	3 487	276 777	.246	.213	.865
.300 - .399	220	3.7	1 084 373	4 929	1 247 290	5 670	362 320	.334	.290	.869
.400 - .499	150	2.5	420 610	2 804	493 159	3 288	184 945	.440	.375	.853
.500 - .599	120	2.0	486 513	4 054	555 474	4 629	269 110	.553	.484	.876
.600 - .699	114	1.9	387 754	3 401	447 424	3 925	247 844	.639	.554	.867
.700 - .799	97	1.6	296 872	3 061	344 118	3 548	222 374	.749	.646	.863
.800 - .899	55	.9	229 383	4 171	286 646	5 212	195 848	.854	.683	.800
.900 - .999	60	1.0	180 167	3 003	210 140	3 502	171 899	.954	.818	.857
1.000 & Over	601	10.0	1 408 290	2 343	1 654 092	2 719	3 662 115	2.600	2.241	.862
Total	6 018	100.0	12 548 103	2 085	14 448 018	2 401	6 033 340	.481	.418	.868

EXHIBIT 3B

Intrastate Rated Risks with Debit Modifications
By Standard Loss Ratio Interval

Standard Loss Ratio Interval	(1) No. of Risks	(2) %	(3) Standard Premium	(4) Average Standard Premium Size (3)÷(1)	(5) Manual Premium	(6) Average Manual Premium Size (5)÷(1)	(7) Incurred Losses	(8) Standard Premium Loss Ratio (7)÷(3)	(9) Manual Premium Loss Ratio (7)÷(5)	(10) Average Modi- fication (3)÷(5)
.000	936	17.6	$ 897 106	$ 958	$ 788 983	$ 843	$ -	-	-	1.137
.001 - .199	2 321	43.7	6 271 805	2 702	5 235 587	2 256	541 017	.086	.103	1.198
.200 - .299	404	7.6	1 907 985	4 723	1 559 085	3 859	461 435	.242	.296	1.224
.300 - .399	265	5.0	1 351 449	5 100	1 068 628	4 033	464 222	.343	.434	1.265
.400 - .499	193	3.6	1 021 932	5 295	805 290	4 172	478 840	.469	.595	1.269
.500 - .599	159	3.0	828 043	5 208	680 746	4 281	468 056	.565	.688	1.216
.600 - .699	127	2.4	970 921	7 645	792 492	6 240	631 202	.650	.796	1.225
.700 - .799	104	2.0	504 347	4 849	402 753	3 873	386 954	.767	.961	1.252
.800 - .899	68	1.3	376 860	5 542	309 199	4 547	317 465	.842	1.027	1.219
.900 - .999	63	1.2	336 120	5 335	270 514	4 294	321 899	.958	1.190	1.243
1.000 & Over	667	12.6	1 885 970	2 828	1 579 086	2 367	4 621 490	2.450	2.927	1.194
Total	5 307	100.0	16 352 538	3 081	13 492 363	2 542	8 692 580	.532	.644	1.212

EXHIBIT 4

1955 Policy Year

Experience Rating Statistics by Size of Expected Losses

Total Intrastate Rated Risks

(1) Size of Expected Loss	(2) No. of Ratings	(3) Actual Losses	(4) Expected Losses	(5) Modified Expected Losses	(6) Ratio: Actual to Expected Losses (3)÷(4)	(7) Average Modifi- cation (5)÷(4)
Under 600	134	65 882	68 800	71 484	.958	1.039
600- 999	2 247	2 031 406	1 914 123	1 978 653	1.061	1.034
1,000- 1,499	2 832	3 817 042	3 450 908	3 574 934	1.106	1.036
1,500- 2,499	2 522	5 326 006	4 840 998	5 027 596	1.100	1.039
2,500- 3,999	1 505	5 540 955	4 728 927	4 964 976	1.172	1.050
4,000- 5,999	825	4 093 896	4 009 139	4 155 611	1.021	1.037
6,000- 7,499	328	2 277 251	2 201 739	2 295 168	1.034	1.042
7,500- 9,999	300	2 898 600	2 586 232	2 730 976	1.121	1.056
10,000- 11,999	155	1 757 993	1 697 550	1 787 173	1.036	1.053
12,000- 14,999	139	2 160 883	1 864 940	2 055 320	1.159	1.102
15,000- 24,999	208	4 322 323	4 004 912	4 271 735	1.079	1.067
25,000- 39,999	77	2 458 015	2 411 428	2 470 084	1.019	1.024
40,000- 59,999	28	1 105 924	1 367 627	1 302 856	.809	.953
60,000- 99,999	17	1 182 983	1 319 835	1 276 031	.896	.967
100,000-149,999	4	330 251	444 999	365 283	.742	.821
150,000-199,999	1	67 310	181 446	74 393	.371	.410
200,000-349,999	2	534 946	549 356	550 347	.974	1.002
350,000 & Over	1	762 569	662 275	788 107	1.151	1.190
Total	11 325	40 734 235	38 305 234	39 740 727	1.063	1.037

EXHIBIT 4A

1955 Policy Year

Experience Rating Statistics by Size of Expected Losses

Credit Intrastate Rated Risks

(1) Size of Expected Loss	(2) No. of Ratings	(3) Actual Losses	(4) Expected Losses	(5) Modified Expected Losses	(6) Ratio: Actual to Expected Losses (3)÷(4)	(7) Average Modifi- cation (5)÷(4)
Under 600	52	1 317	28 258	27 825	.047	.985
600- 999	1 269	88 936	1 083 983	1 047 832	.082	.967
1,000- 1,499	1 554	209 448	1 885 888	1 791 878	.111	.950
1,500- 2,499	1 361	408 036	2 608 150	2 409 446	.156	.924
2,500- 3,999	743	464 486	2 525 501	2 072 429	.200	.891
4,000- 5,999	419	630 991	2 035 127	1 767 662	.310	.869
6,000- 7,499	170	461 987	1 142 006	972 692	.405	.852
7,500- 9,999	149	690 052	1 286 586	1 089 778	.536	.847
10,000- 11,999	81	417 368	888 358	736 417	.470	.829
12,000- 14,999	59	377 823	794 421	659 512	.476	.830
15,000- 24,999	94	931 753	1 813 554	1 513 215	.514	.834
25,000- 39,999	37	656 030	1 167 042	937 328	.562	.803
40,000- 59,999	17	479 360	830 572	666 006	.577	.802
60,000- 99,999	8	304 182	630 879	437 075	.482	.693
100,000-149,999	3	175 462	318 169	213 087	.551	.670
150,000-199,999	1	67 310	181 446	74 393	.371	.410
200,000-349,999	1	317 191	340 585	326 962	.931	.960
Total	6 018	6 681 732	19 360 525	16 743 537	.345	.865

EXHIBIT 4B

1955 Policy Year

Experience Rating Statistics by Size of Expected Losses

Debit Intrastate Rated Risks

(1) Size of Expected Loss	(2) No. of Ratings	(3) Actual Losses	(4) Expected Losses	(5) Modified Expected Losses	(6) Ratio: Actual to Expected Losses (3)÷(4)	(7) Average Modifi- cation (5)÷(4)
Under 600	82	64 565	40 542	43 659	1.593	1.077
600- 999	978	1 942 470	830 140	930 821	2.340	1.121
1,000- 1,499	1 278	3 607 594	1 565 020	1 783 056	2.305	1.139
1,500- 2,499	1 161	4 917 970	2 232 848	2 618 150	2.203	1.173
2,500- 3,999	762	5 076 469	2 403 426	2 892 547	2.112	1.204
4,000- 5,999	406	3 462 905	1 974 012	2 387 949	1.754	1.210
6,000- 7,499	158	1 815 264	1 059 733	1 322 476	1.713	1.248
7,500- 9,999	151	2 208 548	1 299 646	1 641 198	1.699	1.263
10,000- 11,999	74	1 340 625	809 192	1 050 756	1.657	1.299
12,000- 14,999	80	1 783 060	1 070 519	1 395 808	1.666	1.304
15,000- 24,999	114	3 390 570	2 191 358	2 758 520	1.547	1.259
25,000- 39,999	40	1 801 985	1 244 386	1 532 756	1.448	1.232
40,000- 59,999	11	626 564	537 055	636 850	1.167	1.186
60,000- 99,999	9	878 801	688 956	838 956	1.276	1.218
100,000-149,999	1	154 789	126 830	152 196	1.220	1.200
200,000-349,999	1	217 755	208 771	223 385	1.043	1.070
350,000 & Over	1	762 569	662 275	788 107	1.151	1.190
Total	5 307	34 052 503	18 944 709	22 997 190	1.797	1.214

EXHIBIT 5

1955 Policy Year

Experience Rating Statistics by Size of Expected Losses

Total Interstate Rated Risks

(1) Size of Expected Loss	(2) No. of Ratings	(3) Actual Losses	(4) Expected Losses	(5) Modified Expected Losses	(6) Ratio: Actual to Expected Losses (3)÷(4)	(7) Average Modifi- cation (5)÷(4)
Under 600	386	183 563	109 130	106 175	1.682	.973
600- 999	224	232 546	182 769	178 030	1.272	.974
1,000- 1,499	280	431 379	348 292	356 304	1.239	1.023
1,500- 2,499	407	807 163	798 878	809 500	1.010	1.013
2,500- 3,999	340	1 382 498	1 098 877	1 158 222	1.258	1.054
4,000- 5,999	294	1 782 624	1 440 500	1 523 747	1.238	1.058
6,000- 7,499	141	1 060 376	950 437	992 099	1.116	1.044
7,500- 9,999	193	1 814 859	1 651 889	1 683 137	1.099	1.019
10,000- 11,999	85	1 020 418	937 139	963 096	1.089	1.028
12,000- 14,999	113	1 680 541	1 530 641	1 595 409	1.098	1.042
15,000- 24,999	204	4 008 533	3 902 595	3 939 763	1.027	1.010
25,000- 39,999	130	4 520 771	4 058 667	4 196 990	1.114	1.034
40,000- 59,999	85	4 163 468	4 275 945	4 180 520	.974	.978
60,000- 99,999	69	4 840 542	5 350 950	5 008 909	.905	.936
100,000-149,999	24	2 645 164	2 873 012	2 720 853	.921	.947
150,000-199,999	14	1 894 624	2 512 745	2 030 902	.754	.808
200,000-349,999	9	1 613 252	2 402 404	1 778 424	.672	.740
350,000 & Over	8	3 933 116	5 678 330	3 856 366	.693	.679
Total	3 006	38 015 437	40 103 200	37 080 446	.948	.925

EXHIBIT 5A

1955 Policy Year

Experience Rating Statistics by Size of Expected Losses

Credit Interstate Rated Risks

(1) Size of Expected Loss	(2) No. of Ratings	(3) Actual Losses	(4) Expected Losses	(5) Modified Expected Losses	(6) Ratio: Actual to Expected Losses (3)÷(4)	(7) Average Modifi- cation (5)÷(4)
Under 600	228	57 657	63 718	53 096	.905	.833
600- 999	141	29 658	114 626	99 790	.259	.871
1,000- 1,499	150	63 363	184 902	163 708	.343	.885
1,500- 2,499	226	165 546	444 022	393 009	.373	.885
2,500- 3,999	163	221 824	519 958	449 685	.427	.865
4,000- 5,999	138	309 191	667 729	580 822	.463	.870
6,000- 7,499	71	294 109	477 678	414 049	.616	.867
7,500- 9,999	95	508 845	818 022	684 116	.622	.836
10,000- 11,999	42	293 980	468 485	380 111	.628	.811
12,000- 14,999	58	450 088	786 355	629 326	.572	.800
15,000- 24,999	102	1 236 887	1 964 839	1 585 199	.630	.807
25,000- 39,999	68	1 501 215	2 138 835	1 777 591	.702	.831
40,000- 59,999	52	1 875 749	2 626 146	2 169 320	.714	.826
60,000- 99,999	46	2 602 510	3 543 017	2 870 341	.735	.810
100,000-149,999	15	1 316 364	1 831 462	1 428 821	.719	.780
150,000-199,999	11	1 325 874	1 994 054	1 386 233	.665	.695
200,000-349,999	9	1 613 252	2 402 404	1 778 424	.672	.740
350,000 & Over	8	3 933 116	5 678 330	3 858 366	.693	.679
Total	1 623	17 799 228	26 724 582	20 702 007	.666	.775

EXHIBIT 5B

1955 Policy Year

Experience Rating Statistics by Size of Expected Losses

Debit Interstate Rated Risks

(1) Size of Expected Loss	(2) No. of Ratings	(3) Actual Losses	(4) Expected Losses	(5) Modified Expected Losses	(6) Ratio: Actual to Expected Losses (3)÷(4)	(7) Average Modifi- cation (5)÷(4)
Under 600	158	125 906	45 412	53 079	2.773	1.169
600- 999	83	202 888	68 143	78 240	2.977	1.148
1,000- 1,499	130	368 016	163 390	192 596	2.252	1.179
1,500- 2,499	181	641 617	354 856	416 491	1.808	1.174
2,500- 3,999	177	1 160 674	578 919	708 537	2.005	1.224
4,000- 5,999	156	1 473 433	772 771	942 925	1.907	1.220
6,000- 7,499	70	766 267	472 759	578 050	1.621	1.223
7,500- 9,999	98	1 306 014	833 867	999 021	1.566	1.198
10,000- 11,999	43	726 438	468 654	582 985	1.550	1.244
12,000- 14,999	55	1 230 453	744 286	966 083	1.653	1.298
15,000- 24,999	102	2 771 646	1 937 756	2 354 564	1.430	1.215
25,000- 39,999	62	3 019 556	1 919 832	2 419 399	1.573	1.260
40,000- 59,999	33	2 287 719	1 649 799	2 011 200	1.387	1.219
60,000- 99,999	23	2 238 032	1 807 933	2 138 568	1.238	1.183
100,000-149,999	9	1 328 800	1 041 550	1 292 032	1.276	1.240
150,000-199,999	3	568 750	518 691	644 609	1.097	1.243
Total	1 383	20 216 209	13 378 618	16 378 439	1.511	1.224

EXHIBIT 6

1955 Policy Year

Experience of Experience Rated Risks by Premium Size

Total Intrastate Rated Risks

(1) Standard Premium Size	(2) No. of Risks	(3) Standard Premium	(4) Manual Premium	(5) Losses Incurred	(6) Loss Ratios Standard (5)÷(3)	(7) Loss Ratios Manual (5)÷(4)
$ 499 & Under	828	265 840	264 604	163 729	.616	.619
500- 999	3 515	2 595 987	2 579 775	1 479 455	.570	.573
1,000- 1,999	3 444	4 804 028	4 746 019	2 591 456	.539	.546
2,000- 2,999	1 332	3 223 197	3 144 966	1 615 837	.501	.514
3,000- 4,999	1 020	3 829 155	3 754 609	1 964 513	.513	.523
5,000- 9,999	722	4 920 550	4 727 303	2 697 855	.548	.571
10,000-19,999	324	4 284 444	3 994 451	1 863 613	.435	.467
20,000-29,999	83	1 921 668	1 831 658	864 662	.450	.472
30,000-39,999	27	886 548	855 811	417 649	.471	.488
40,000-49,999	13	558 863	462 222	223 853	.401	.484
50,000-59,999	7	390 735	492 018	151 357	.387	.308
60,000-69,999	3	204 054	203 435	176 338	.864	.867
70,000-79,999	2	149 782	126 050	93 719	.626	.744
80,000-89,999	1	88 761	82 954	46 311	.522	.558
90,000-99,999	1	94 644	49 552	11 825	.125	.239
100,000 & Over	3	682 385	624 954	363 748	.533	.582
Total	11 325	28 900 641	27 940 381	14 725 920	.510	.527
Under $1,000	4 343	2 861 827	2 844 379	1 643 184	.574	.578
$1,000 & Over	6 982	26 038 814	25 096 002	13 082 736	.502	.521

EXHIBIT 6A

1955 Policy Year

Experience of Experience Rated Risks by Premium Size

Credit Intrastate Rated Risks

(1) Standard Premium Size	(2) No. of Risks	(3) Standard Premium	(4) Manual Premium	(5) Losses Incurred	(6) Loss Ratios Standard (5)÷(3)	(7) Manual (5)÷(4)
$ 499 & Under	522	169 838	177 569	94 555	.557	.532
500- 999	2 123	1 541 594	1 624 230	766 784	.497	.472
1,000- 1,999	1 859	2 567 175	2 787 241	1 309 341	.510	.470
2,000- 2,999	606	1 450 135	1 637 762	695 877	.480	.425
3,000- 4,999	446	1 665 679	1 939 436	731 768	.439	.377
5,000- 9,999	300	2 023 249	2 388 478	1 060 150	.524	.444
10,000-19,999	115	1 485 196	1 779 795	599 754	.404	.337
20,000-29,999	30	700 342	885 790	349 107	.498	.394
30,000-39,999	8	268 365	365 613	151 614	.565	.415
40,000-49,999	3	131 816	172 652	41 171	.312	.238
50,000-59,999	4	220 418	340 485	112 427	.510	.330
60,000-69,999	1	68 393	82 401	38 574	.564	.468
100,000 & Over	1	255 903	266 566	82 218	.321	.308
Total	6 018	12 548 103	14 448 018	6 033 340	.481	.418
Under $1,000	2 645	1 711 432	1 801 799	861 339	.503	.478
$1,000 & Over	3 373	10 836 671	12 646 219	5 172 001	.477	.409

EXHIBIT 6B

1955 Policy Year

Experience of Experience Rated Risks by Premium Size

Debit Intrastate Rated Risks

(1) Standard Premium Size	(2) No. of Risks	(3) Standard Premium	(4) Manual Premium	(5) Losses Incurred	(6) (7) Loss Ratios	
					Standard (5)÷(3)	Manual (5)÷(4)
$ 499 & Under	306	96 002	87 035	69 174	.721	.795
500- 999	1 392	1 054 393	955 545	712 671	.676	.746
1,000- 1,999	1 585	2 236 853	1 958 778	1 282 115	.573	.655
2,000- 2,999	726	1 773 062	1 507 204	919 960	.519	.610
3,000- 4,999	574	2 163 476	1 815 173	1 232 745	.570	.679
5,000- 9,999	422	2 897 301	2 338 825	1 637 705	.565	.700
10,000-19,999	209	2 799 248	2 214 656	1 263 859	.451	.571
20,000-29,999	53	1 221 326	945 868	515 555	.422	.545
30,000-39,999	19	618 183	490 198	266 035	.430	.543
40,000-49,999	10	427 047	289 570	182 682	.428	.631
50,000-59,999	3	170 317	151 533	38 930	.229	.253
60,000-69,999	2	135 661	121 034	137 764	1.016	1.138
70,000-79,999	2	149 782	126 050	93 719	.626	.744
80,000-89,999	1	88 761	82 954	46 311	.522	.558
90,000-99,999	1	94 644	49 552	11 825	.125	.239
100,000 & Over	2	426 482	358,388	281 530	.660	.786
Total	5 307	16 352 538	13 492 363	8 692 580	.532	.644
Under $1,000	1 698	1 150 395	1 042 580	781 845	.680	.750
$1,000 & Over	3 609	15 202 143	12 449 783	7 910 735	.520	.635

EXHIBIT 7

1955 Policy Year

Experience of Experience Rated Risks by Premium Size

Total Interstate Rated Risks

(1) Standard Premium Size	(2) No. of Risks	(3) Standard Premium	(4) Manual Premium	(5) Losses Incurred	(6) Loss Ratios Standard (5)÷(3)	(7) Loss Ratios Manual (5)÷(4)
$ 499 & Under	497	140 026	172 996	46 740	.334	.270
500- 999	383	290 242	302 807	240 833	.830	.795
1,000- 1,999	512	742 322	753 237	407 425	.549	.541
2,000- 2,999	282	670 798	685 942	427 062	.637	.623
3,000- 4,999	347	1 360 851	1 393 777	778 328	.572	.558
5,000- 9,999	416	2 884 296	2 973 299	1 520 277	.527	.511
10,000-19,999	265	3 721 735	3 754 604	2 070 405	.556	.551
20,000-29,999	120	2 914 909	3 119 970	1 398 297	.480	.448
30,000-39,999	65	2 261 569	2 372 159	1 080 470	.478	.455
40,000-49,999	26	1 172 072	1 213 524	594 515	.507	.490
50,000-59,999	30	1 666 165	1 855 943	733 846	.440	.395
60,000-69,999	17	1 126 047	1 117 094	495 651	.440	.444
70,000-79,999	10	735 452	857 500	359 940	.489	.420
80,000-89,999	9	756 529	857 219	242 819	.321	.283
90,000-99,999	2	195 378	151 456	111 968	.573	.739
100,000 & Over	25	5 042 112	6 336 447	2 102 306	.417	.332
Total	3 006	25 680 503	27 917 974	12 610 882	.491	.452
Under $1,000	880	430 268	475 803	287 573	.668	.604
$1,000 & Over	2 126	25 250 235	27 442 171	12 323 309	.488	.449

EXHIBIT 7A

1955 Policy Year

Experience of Experience Rated Risks by Premium Size

Credit Interstate Rated Risks

(1) Standard Premium Size	(2) No. of Risks	(3) Standard Premium	(4) Manual Premium	(5) Losses Incurred	(6) Loss Ratios Standard (5)÷(3)	(7) Manual (5)÷(4)
$ 499 & Under	313	96 495	135 539	34 609	.359	.255
500- 999	239	182 813	209 370	173 057	.947	.827
1,000- 1,999	269	384 261	441 031	179 674	.468	.407
2,000- 2,999	148	349 080	408 732	267 182	.765	.654
3,000- 4,999	177	694 481	828 440	489 633	.705	.591
5,000- 9,999	199	1 382 316	1 736 895	666 458	.482	.384
10,000-19,999	110	1 576 128	1 986 280	861 868	.547	.434
20,000-29,999	66	1 600 596	2 040 621	762 437	.476	.374
30,000-39,999	38	1 319 935	1 579 022	708 427	.537	.449
40,000-49,999	11	510 603	697 481	273 716	.536	.392
50,000-59,999	18	998 990	1 350 034	379 829	.380	.281
60,000-69,999	6	399 622	523 154	149 713	.375	.286
70,000-79,999	5	368 895	526 763	166 316	.451	.316
80,000-89,999	6	510 977	640 465	149 666	.293	.234
100,000 & Over	18	3 967 520	5 513 888	1 709 243	.431	.310
Total	1 623	14 342 712	18 617 715	6 971 828	.486	.374
Under $1,000	552	279 308	344 909	207 666	.744	.602
$1,000 & Over	1 071	14 063 404	18 272 806	6 764 162	.481	.370

EXHIBIT 7B

1955 Policy Year

Experience of Experience Rated Risks by Premium Size

Debit Interstate Rated Risks

(1) Standard Premium Size	(2) No. of Risks	(3) Standard Premium	(4) Manual Premium	(5) Losses Incurred	(6) (7) Loss Ratios	
					Standard (5)+(3)	Manual (5)+(4)
$ 499 & Under	184	43 531	37 457	12 131	.279	.324
500- 999	144	107 429	93 437	67 776	.631	.725
1,000- 1,999	243	358 061	312 206	227 751	.636	.729
2,000- 2,999	134	321 718	277 210	159 880	.497	.577
3,000- 4,999	170	666 370	565 337	288 695	.433	.511
5,000- 9,999	217	1 501 980	1 236 404	853 819	.568	.691
10,000-19,999	155	2 145 607	1 768 324	1 208 537	.563	.683
20,000-29,999	54	1 314 313	1 079 349	635 860	.484	.589
30,000-39,999	27	941 634	793 137	372 043	.395	.469
40,000-49,999	15	661 469	516 043	320 799	.485	.622
50,000-59,999	12	667 175	505 909	354 017	.531	.700
60,000-69,999	11	726 425	593 940	345 938	.476	.582
70,000-79,999	5	366 557	330 737	193 624	.528	.585
80,000-89,999	3	245 552	216 754	93 153	.379	.430
90,000-99,999	2	195 378	151 456	111 968	.573	.739
100,000 & Over	7	1 074 592	822 559	393 063	.366	.478
Total	1 383	11 337 791	9 300 259	5 639 054	.497	.606
Under $1,000	328	150 960	130 894	79 907	.529	.610
$1,000 & Over	1 055	11 186 831	9 169 365	5 559 147	.497	.606

EXHIBIT 8

1955 Policy Year

Experience Rating Statistics by Size of Expected Losses

Total Interstate and Intrastate Rated Risks

(1) Size of Expected Loss	(2) No. of Ratings	(3) Actual Losses	(4) Expected Losses	(5) Modified Expected Losses	(6) Ratio: Actual to Expected Losses (3)÷(4)	(7) Average Modification (5)÷(4)
Under 600	520	249 445	177 930	177 659	1.402	.998
600- 999	2 471	2 263 952	2 096 892	2 156 683	1.080	1.029
1,000- 1,499	3 112	4 248 421	3 799 200	3 931 238	1.118	1.035
1,500- 2,499	2 929	6 133 169	5 639 876	5 837 096	1.087	1.035
2,500- 3,999	1 845	6 923 453	5 827 804	6 123 198	1.188	1.051
4,000- 5,999	1 119	5 876 520	5 449 639	5 679 358	1.078	1.042
6,000- 7,499	469	3 337 627	3 152 176	3 287 267	1.059	1.043
7,500- 9,999	493	4 713 459	4 238 121	4 414 113	1.112	1.042
10,000- 11,999	240	2 778 411	2 634 689	2 750 269	1.055	1.044
12,000- 14,999	252	3 841 424	3 395 581	3 650 729	1.131	1.075
15,000- 24,999	412	8 330 856	7 907 507	8 211 498	1.054	1.038
25,000- 39,999	207	6 978 786	6 470 095	6 667 074	1.079	1.030
40,000- 59,999	113	5 269 392	5 643 572	5 483 376	.934	.972
60,000- 99,999	86	6 023 525	6 670 785	6 284 940	.903	.942
100,000-149,999	28	2 975 415	3 318 011	3 086 136	.897	.930
150,000-199,999	15	1 961 934	2 694 191	2 105 295	.728	.781
200,000-349,999	11	2 148 198	2 951 760	2 328 771	.728	.789
350,000 & Over	9	4 695 685	6 340 605	4 646 473	.741	.733
Total	14 331	78 749 672	78 408 434	76 821 173	1.004	.980

EXHIBIT 9

1955 Policy Year

Experience of Experience Rated Risks by Premium Size

Total Interstate and Intrastate Rated Risks

(1) Standard Premium Size	(2) No. of Risks	(3) Standard Premium	(4) Manual Premium	(5) Losses Incurred	(6) Loss Ratios Standard (5)÷(3)	(7) Loss Ratios Manual (5)÷(4)
$ 499 & Under	1 324	405 866	437 600	210 469	.519	.481
500- 999	3 898	2 886 229	2 882 582	1 720 288	.596	.597
1,000- 1,999	3 956	5 546 350	5 499 256	2 998 881	.541	.545
2,000- 2,999	1 614	3 893 995	3 830 908	2 042 899	.525	.533
3,000- 4,999	1 367	5 190 006	5 148 386	2 742 841	.528	.533
5,000- 9,999	1 138	7 804 846	7 700 602	4 218 132	.540	.548
10,000-19,999	589	8 006 179	7 749 055	3 934 018	.491	.508
20,000-29,999	203	4 836 577	4 951 628	2 262 959	.468	.457
30,000-39,999	92	3 148 117	3 227 970	1 498 119	.476	.464
40,000-49,999	39	1 730 935	1 675 746	818 368	.473	.488
50,000-59,999	37	2 056 900	2 347 961	885 203	.430	.377
60,000-69,999	20	1 330 101	1 320 529	671 989	.505	.509
70,000-79,999	12	885 234	983 550	453 659	.512	.461
80,000-89,999	10	845 290	940 173	289 130	.342	.308
90,000-99,999	3	290 022	201 008	123 793	.427	.616
100,000 & Over	28	5 724 497	6 961 401	2 466 054	.431	.354
Total	14 331	54 581 144	55 858 355	27 336 802	.501	.489
Under $1,000	5 223	3 292 095	3 320 182	1 930 757	.586	.582
$1,000 & Over	9 108	51 289 049	52 538 173	25 406 045	.495	.484