

A UNIFORM STATISTICAL PLAN AND INTEGRATED RATE FILING PROCEDURE FOR PRIVATE PASSENGER AUTOMOBILE INSURANCE

BY

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The casualty insurance rate analyst in the employ of a state insurance department who attempts to conscientiously administer the various statutes relating to insurance rates is constantly confronted with inconsistency and contradiction. In the discussion that follows, the thoughts of one such rate analyst are offered for consideration. The entire presentation represents certain ideas and conclusions of the writer, and they should not be construed to be the attitude or policy of the writer's employer.

The insurance against loss, expense, and liability resulting from the use of motor vehicles develops a larger premium volume than any other single kind of casualty insurance with the exception of accident and health insurance. In Wisconsin, where \$344,839,837 fire and casualty premiums were written in 1957, a total of \$99,656,550, or 28.9%, was reported as automobile insurance. The vast majority of automobile insurance premiums are the result of private passenger automobiles. It therefore behooves the state insurance regulatory officials to exercise extreme care in making decisions concerning rates and premium charges for private passenger automobiles. Any error that is made through commission or omission, even though small in relation to one individual, can, in the aggregate, reach gigantic proportions in terms of total premium dollars. This could be either detrimental or favorable to insurance companies and the public interest.

The Wisconsin Legislature, in 1947, saw fit to enact its version of the All Industry Casualty Rate Regulatory Bill. Section 204.37, Wisconsin Statutes, states:

"204.37. Insurance rates and practices: regulations; purpose of sections. The purpose of sections 204.37 to 204.54 is to promote the public welfare by regulating insurance rates made by rating organizations and by insurers to the end that they shall not be excessive, inadequate or unfairly discriminatory, and to authorize and regulate co-operative action among insurers in rate making and in other matters within the scope of said sections. Nothing in said sections is intended (1) to prohibit or discourage reasonable competition, or (2) to prohibit, or encourage except to the extent necessary to accomplish the aforementioned purpose, uniformity in insurance rates, rating systems, rating plans or practices. Said sections shall be liberally interpreted to carry into effect the provisions of this section."

It seems significant that the legislature had foremost in mind the purpose "to promote the public welfare by regulating insurance rates." The legislature says further that the rate regulatory statutes are not intended "to prohibit or discourage reasonable competition." However, with respect to insurance rates and practices, uniformity is encouraged and intended by the legislature to the extent necessary to accomplish the purpose of regulating insurance rates to the end that they shall not be excessive, inadequate or unfairly discriminatory. The legislature has clearly authorized cooperative action among insurers in rate making, and it is the mandate of the legislature that the commissioner of insurance regulate such cooperative action in rate making and in other matters within the scope of the rate regulatory statutes, sections 204.37 to 204.54.

With respect to rate making, the legislature has given the commissioner of insurance certain tools, as follows:

"204.39. Rate making. (1) All rates shall be made in accordance with the following provisions:

"(a) Due consideration shall be given to past and prospective loss experience within and outside this state, to catastrophe hazards, if any, to a reasonable margin for underwriting profit and contingencies, to dividends, savings or unabsorbed premium deposits allowed or returned by insurers to their policyholders, members or subscribers, to past and prospective expenses both countrywide and those specially applicable to this state, and to all other relevant factors within and outside this state;

"(b) The systems of expense provisions included in the rates for use by any insurer or group of insurers may differ from those of other insurers or groups of insurers to reflect the requirements of the operating methods of any such insurer or group with respect to any kind of insurance, or with respect to any subdivision or combination thereof for which subdivision or combination separate expense provisions are applicable;

"(c) Risks may be grouped by classifications for the establishment of rates and minimum premiums. Classification rates may be modified to produce rates for individual risks in accordance with rating plans which establish standards for measuring variations in hazards or expense provisions, or both. Such standards may measure any differences among risks that can be demonstrated to have a probable effect upon losses or expenses;

"(d) Rates shall not be excessive, inadequate or unfairly discriminatory.

"(2) Except to the extent necessary to meet the provisions of subsection (1) (d), uniformity among insurers in any matters within the scope of this section is neither required nor prohibited."

Here the legislature has again stated that "Rates shall not be excessive, inadequate or unfairly discriminatory." The legislature repeats the admonition that uniformity among insurers in any matter within the scope of the section on rate making is neither required nor prohibited *except to the extent necessary to meet the provisions that rates shall not be excessive, inadequate or unfairly discriminatory.*

In respect to rate administration, the legislature has charged the commissioner with certain responsibilities in accordance with section

"204.49. Rate administration. (1) RECORDING AND REPORTING OF LOSS AND EXPENSE EXPERIENCE. The commissioner shall promulgate reasonable rules and statistical plans, reasonably adapted to each of the rating systems on file with him which may be modified from time to time and which shall be used thereafter by each insurer in the recording and reporting of its loss and countrywide expense experience in order that the experience of all insurers may be made available at least annually in such form and detail as may be necessary to aid him in determining whether rating systems comply with the standards set forth in section 204.39. Such rules and plans may also provide for the recording and reporting of expense experience items which are specially applicable to this state and are not susceptible of determination by a prorating countrywide expense experience. In promulgating such rules and plans, the commissioner shall give due consideration to the rating systems on file with him and in order that such rules and plans may be as uniform as is practicable among the several states to the rules and to the form of the plans used for such rating systems in other states. No insurer shall be required to record or report its loss experience on a classification basis that is inconsistent with the rating system filed by it. The commissioner may designate one or more rating organizations or other agencies to assist him in gathering such experience and making compilations thereof, and such compilations shall be made available subject to reasonable rules promulgated by the commissioner to insurers and rating organizations.

"(2) INTERCHANGE OF RATING PLAN DATA. Reasonable rules and plans may be promulgated by the commissioner for the interchange of data necessary for the application of rating plans.

"(3) CONSULTATION WITH OTHER STATES. In order to further uniform administration of rate regulatory laws, the commissioner and every insurer and rating organization may exchange information and experience data with insurance supervisory officials, insurers and rating organizations in other states and may consult with them with respect to rate making and the application of rating.

“(4) RULES AND REGULATIONS. The commissioner may make reasonable rules and regulations in conformity with and necessary to enforce the provisions of sections 204.37 to 204.54.”

We note that the commissioner is required to promulgate reasonable rules and statistical plans which shall be used by each insurer. Since the statute does not state that a company or a rating bureau, or even a statistical agency, may promulgate statistical plans, could we not logically conclude that the commissioner has the responsibility, after reviewing each of the rating systems on file, of promulgating a statistical plan that would more or less represent a common denominator for such rating systems? Due consideration must be given to the plans in effect in other states, and the commissioner's plan must be reasonably adapted to each of the rating systems on file. It would seem that a statistical plan that was not inconsistent with any given rating system would qualify as being reasonably adapted to the rating system. Is it not significant that the statute requires that the statistical plans be reasonably adapted to *each* of the rating systems on file? This, no doubt, means that no rating system can be disregarded in respect to the requirement for a statistical plan and that each rating system is just as important as any other rating system and merits the same consideration. But does this not also imply that a broad statistical plan accommodating a general treatment of the salient features of more than one rating system should underlie reasonable rules and statistical plans?

With these factors in mind, let us consider the present status of rates and statistical plans for private passenger automobile liability insurance in Wisconsin. In addition to a large number of companies which file rates and manuals of rules on an independent basis, the National Bureau of Casualty Underwriters and the Mutual Insurance Rating Bureau file rates and manuals on behalf of their members and subscribers. These two rating bureaus and the Midwestern Independent Statistical Service have been designated as statistical agents to assist the commissioner in the collection of underwriting experience. Each of the statistical agencies has filed certain statistical plans reasonably adapted to filed rating systems. The commissioner has accepted the various statistical plans in use by the statistical agencies.

In respect to private passenger automobiles, the rating systems on file are, almost without exception, very nearly identical. The statistical plans in use vary to perhaps a greater degree than the rating systems they are related to. There appears to have been little attempt in the past to encourage development of common statistical plans. One might then ask if there would be any value in having a common statistical plan. I submit that a common or uniform statistical plan is the only tool which is available to the commissioner to determine whether or not filed private passenger automobile rates meet the standards of the rate law. One statistical plan, coupled with a modification of the manner in which rates are filed, would produce statewide average pure

premiums for driver classifications and territories. The relativities between territories and between the various driver classifications based on the actions of all drivers could be determined. This would provide a realistic, accurate foundation on which all filings could be based in the absence of credible statistics to the contrary.

In order to more fully understand and evaluate the problem, let us consider the automobile bodily injury liability premium volume written in Wisconsin by companies affiliated with the principal rating bureaus and companies which file rates on an independent basis. Table I was prepared from the Annual Statements filed with the Wisconsin commissioner of insurance, and is based on the net direct automobile bodily injury premiums written in Wisconsin in 1951 and 1957. It is true that this summary represents the total automobile bodily injury writings rather than just private passenger premiums which are the subject under consideration. However, the distortion because of inclusion of commercial premiums is negligible. Property damage liability premiums for private passenger automobiles bear a more or less constant relationship to the bodily injury premiums, and thus for purposes of this study it would seem that what is true for bodily injury in respect to distribution of premiums and exposures between companies or territories or classifications would also be true for property damage.

TABLE I
 WISCONSIN AUTOMOBILE BODILY INJURY LIABILITY
 ANALYSIS OF WRITTEN PREMIUM

	<u>Written Premium</u>	<u>Number of Companies</u>	<u>Average Premium Per Company</u>	<u>Percent of Total Companies</u>	<u>Percent of Total Premium</u>
<i>Calendar Year 1957</i>					
NBCU Members & Subscribers	7,262,398	90	80,693	43.9%	15.4%
MIRB Members & Subscribers	3,340,219	19	175,801	9.3	7.1
All Other Companies	36,569,642	96	380,934	46.8	77.5
Total All Companies	47,172,259	205	230,109	100.0	100.0
<i>Calendar Year 1951</i>					
NBCU Members & Subscribers	7,233,261	72	100,462	49.0	23.3
MIRB Members & Subscribers	4,434,905	19	233,416	12.9	14.3
All Other Companies	19,343,629	56	345,421	38.1	62.4
Total All Companies	31,011,795	147	210,965	100.0	100.0

In 1951 there were 147 companies which transacted automobile liability insurance in Wisconsin, and by 1957 there were 205 companies reporting such premiums. During this period, the automobile liability premiums written increased from approximately 31 million dollars to slightly over 47 million dollars. Thus we have 39.4% more companies transacting automobile B.I. in 1957 than six years earlier, while at the same time the premium volume has increased approximately 52%. Although the rating bureaus have gained some members and subscribers, the number of companies filing rates on an independent basis has increased from 56 to 96. The premium volume reflects a similar increase, whereas the premiums written by bureau companies have declined somewhat. By the same token, the average premium written per Bureau company shows a decrease, with an increase in average premium per independent company. It can be seen that in 1951 the NBCU represented 49.0% of the automobile companies and they wrote 23.3% of the automobile premiums. In 1957, the NBCU represented 43.9% of the companies and they garnered 15.4% of the premiums. At the same time, the number of companies filing rates on an independent basis increased from 38.1% of the total number of companies in 1951 to 46.8% of the companies transacting automobile liability insurance in 1957. In 1957 the independent companies wrote 77.5% of the automobile bodily injury premiums as compared to 62.4% in 1951.

Now that we have considered the premiums written by the bureau companies and the independent companies, let us review the number of vehicles insured by each group of companies. In Table II we find a tabulation of the private passenger exposures in car years reported by companies affiliated with the NBCU, the MIRB, and companies which file rates independently. The exposures are tabulated by territory, with subtotals indicated for the exposures in rural areas and urban areas. We should recognize that there is some distortion, since the NBCU statistical report is for accident year 1956 and the MIRB and the MISS statistical reports are for policy year 1956. Because there are some independent companies which report underwriting experience to the NBCU and the MIRB, the column headed "All Other Companies" is a composite of policy year and accident year figures. It would not appear that this distortion is significant for the purposes of this discussion.

TABLE II
1956 PRIVATE PASSENGER AUTOMOBILE
ANALYSIS OF WRITTEN BODILY INJURY LIABILITY EXPOSURES

	<i>Territory Code</i>	<i>Total Car Years</i>	<i>NBCU Members & Subscribers</i>	<i>MIRB Members & Subscribers</i>	<i>All Other Companies</i>
	25	218,851	32,385	14,693	171,773
	85	54,178	11,089	8,008	35,081
	91	62,830	9,052	2,612	51,116
	92	8,113	1,770	522	5,821
	94	92,837	11,650	9,941	71,246
Total Urban Areas		436,809	65,946	35,776	335,087
	83	21,455	5,802	1,113	14,540
	84	113,755	18,016	6,058	89,681
	96	354,301	17,591	7,238	329,472
Total Rural Areas		489,511	41,409	14,409	433,693
Total All Territories		926,320	107,355	50,185	768,780
<i>Percent Distribution By Territory</i>					
	25	23.6%	30.2%	29.3%	22.3%
	85	5.8	10.3	16.0	4.6
	91	6.8	8.4	5.2	6.7
	92	0.9	1.6	1.0	0.8
	94	10.0	10.9	19.8	9.3
Total Urban Areas		47.2	61.4	71.3	43.6
	83	2.3	5.4	2.2	1.9
	84	12.3	16.8	12.1	11.7
	96	38.2	16.4	14.4	42.8
Total Rural Areas		52.8	36.8	28.7	56.4
Total All Territories		100.0	100.0	100.0	100.0

TABLE II (Cont'd)

Percent Distribution of Total Exposures

	25	100.0%	14.8%	6.7%	78.5%
	85	100.0	20.5	14.8	64.7
	91	100.0	14.5	4.1	81.4
	92	100.0	21.8	6.4	71.8
	94	100.0	12.6	10.7	76.7
Total Urban Areas		100.0	15.1	8.2	76.7
	83	100.0	27.0	5.2	67.8
	84	100.0	15.9	5.3	78.8
	96	100.0	5.0	2.0	93.0
Total Rural Areas		100.0	8.5	2.9	88.6
Total All Territories		100.0	11.6	5.4	83.0

NOTES:

1. NBCU Statistical Report for Accident Year 1956.
 2. MIRB Statistical Report for Policy Year 1956.
 3. Midwestern Independent Statistical Service Report for Policy Year 1956.
 4. Column Titled "All Other Companies" Includes Independent Companies Reporting to NBCU, MIRB, and MISS.
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A review of this table shows where each group of companies has the heaviest concentration of exposures. It is of interest to note that the independent companies have 88.6% of the exposures in rural areas and 76.7% of the exposures in the urban areas. It is perhaps more significant that the NBCU and the MIRB together write 11.4% of the rural exposures and 23.3% of the urban exposures. Thus, the rating bureau companies write proportionately twice as many private passenger vehicles in and around cities as they write vehicles in rural areas. For Wisconsin as a whole, we have the NBCU with 43.9% of the companies writing 11.6% of the private passenger automobiles. The independent companies, on the other hand, write 83.0% of all private passenger automobiles in 46.8% of all companies. This not only supports the findings developed from Table I but it shows that in number of vehicles written the disproportion is even greater. One cannot help but wonder if, in fact, the NBCU does have credible information on which to base its rate level. We can see that the portion of the business that NBCU members and subscribers write ranges from 5.0% in territory 96 up to 27.0% in territory 83. The MIRB, in filing rate revisions, usually depends on the combined statistics of MIRB and NBCU, and to that extent more credible experience would appear to underlie the MIRB rate level. The NBCU, however, in filing rate revisions, does rely on various combinations of territories to develop credibility, and in certain cases countrywide NBCU experience is used where credibility is lacking for Wisconsin alone. Most of us are to a degree quite provincial, and thus would prefer to see, whenever possible, rates that reflect the experience in our home territory or at most the experience in our state. We find it difficult to arouse any enthusiasm for higher factors because of unfavorable experience in other parts of the country. This is not to imply that it is not a two-way street. It is recognized that it is possible that Wisconsin may benefit from a more favorable countrywide result than what is developed in Wisconsin, but it more frequently is the opposite.

Although this information is of interest, the reader may question if Tables I and II do anything other than verify what most insurance people have assumed all along. If nothing else, we have now outlined our problem. We have the NBCU making rates on a fraction of the total experience, which in itself may or may not be undesirable, but it is also a fact that a majority of the companies which file rates on an independent basis follow the filings of the NBCU to a large extent. This, in general, is a desirable procedure, but any error or distortion of classification or territory relativities that is contained in the NBCU filing is spread to almost all companies. Without a consolidation of all experience, it is not possible to verify either accuracy or error. The bureau companies may be victims of adverse selection, which is one segment of the vicious circle which includes increased loss ratios and higher rates and back to more adverse selection. A consolidated tabulation of all experience would be a useful tool in gauging the degree, if any, of adverse selection. In any event, the portion of the

total automobile experience that serves as a foundation for the rate determinations of the NBCU is dangerously small. If the trend of the past 6 years is any sort of an indication of what we can expect in the future, then it would behoove rate regulatory officials to consider the road on which they wish to travel. By this I do not imply anything critical of independent companies. Far from it. We cannot help but recognize the contribution to progress and to competition in our economy. However, let us consider the automobile liability premium volume of many of the companies which file rates independently and support their rate level on principally their own underwriting experience. Table III and IV represent a tabulation of the automobile bodily injury liability premium volume written by each company in Wisconsin in 1951 and 1957 respectively. The Annual Statement filed by each company is the source, and thus the premiums reported include all automobile bodily injury premiums and they are not limited to private passenger automobiles.

TABLE III
1951 WISCONSIN AUTOMOBILE BODILY INJURY LIABILITY
ANALYSIS OF COMPANY PREMIUM VOLUME (WRITTEN PREMIUM)

<i>1951 Premium Volume</i>	<i>TOTAL ALL COMPANIES</i>		<i>NBCU MEMBERS & SUBSCRIBERS</i>		<i>MIRB MEMBERS & SUBSCRIBERS</i>		<i>ALL OTHER COMPANIES</i>		
	<i>Number of Companies</i>	<i>Percent of Total</i>	<i>Number of Companies</i>	<i>Percent of NBCU Total</i>	<i>Number of Companies</i>	<i>Percent of MIRB Total</i>	<i>Number of Companies</i>	<i>Percent of Total</i>	
Less Than 1,000	36	24.4%	24	33.3%	4	21.1%	8	14.3%	
1,000— 9,999	21	14.3	10	13.9	4	21.1	7	12.5	
10,000— 49,999	25	17.0	14	19.4	4	21.1	7	12.5	
50,000— 99,999	11	7.5	3	4.2	1	5.2	7	12.5	
100,000— 199,999	17	11.6	10	13.9	0	—	7	12.5	
200,000— 499,999	17	11.6	6	8.3	4	21.1	7	12.5	
500,000— 999,999	8	5.4	3	4.2	0	—	5	8.9	
1,000,000—1,999,999	11	7.5	2	2.8	2	10.5	7	12.5	
2,000,000 and Over	1	.7	0	—	0	—	1	1.8	
Total	147	100.0	72	100.0	19	100.0	56	100.0	
<i>Accumulative Development</i>									
Less Than 1,000	36	24.5%	24	33.3%	4	21.1%	8	14.3%	
“ “ 10,000	57	38.7	34	47.2	8	42.2	15	26.8	
“ “ 50,000	82	55.7	48	66.6	12	63.3	22	39.3	
“ “ 100,000	93	63.2	51	70.8	13	68.5	29	51.8	
“ “ 200,000	110	74.8	61	84.7	13	68.5	36	64.3	
“ “ 500,000	127	86.4	67	93.0	17	89.6	43	76.8	
“ “ 1,000,000	135	91.8	70	97.2	17	89.6	48	85.7	
“ “ 2,000,000	146	99.3	72	100.0	19	100.0	55	98.2	
Over 2,000,000	147	100.0	72		19		56	100.0	

TABLE IV
1957 WISCONSIN AUTOMOBILE BODILY INJURY LIABILITY
ANALYSIS OF COMPANY PREMIUM VOLUME (WRITTEN PREMIUM)

<i>1957 Premium Volume</i>	<i>TOTAL ALL COMPANIES</i>		<i>NBCU MEMBERS & SUBSCRIBERS</i>		<i>MIRB MEMBERS & SUBSCRIBERS</i>		<i>ALL OTHER COMPANIES</i>	
	<i>Number of Companies</i>	<i>Percent of Total</i>	<i>Number of Companies</i>	<i>Percent of NBCU Total</i>	<i>Number of Companies</i>	<i>Percent of MIRB Total</i>	<i>Number of Companies</i>	<i>Percent of Total</i>
Less Than 1,000	33	16.1%	22	24.4%	2	10.5%	9	9.4%
1,000— 9,999	49	23.9	24	26.7	5	26.3	20	20.8
10,000— 49,999	42	20.5	23	25.6	6	31.6	13	13.5
50,000— 99,999	20	9.7	6	6.7	0	—	14	14.6
100,000— 199,999	18	8.8	6	6.7	1	5.3	11	11.5
200,000— 499,999	18	8.8	4	4.4	4	21.0	10	10.4
500,000— 999,999	10	4.9	4	4.4	0	—	6	6.3
1,000,000—1,999,999	10	4.9	1	1.1	1	5.3	8	8.3
2,000,000 and Over	5	2.4	0	—	0	—	5	5.2
Total	205	100.0	90	100.0	19	100.0	96	100.0
<i>Accumulative Development</i>								
Less Than 1,000	33	16.1%	22	24.4%	2	10.5%	9	9.4%
“ “ 10,000	82	40.0	46	51.1	7	36.8	29	30.2
“ “ 50,000	124	60.4	69	76.7	13	68.4	42	43.7
“ “ 100,000	144	70.2	75	83.4	13	68.4	56	58.3
“ “ 200,000	162	79.0	81	90.1	14	73.7	67	69.8
“ “ 500,000	180	87.7	85	94.5	18	94.8	77	80.2
“ “ 1,000,000	190	92.6	89	98.9	18	94.7	83	86.5
“ “ 2,000,000	200	97.5	90	100.0	19	100.0	91	94.8
Over 2,000,000	205	100.0	90		19		96	100.0

These tables show the number of companies, classified as to the manner of filing automobile rates, which have written premium volume in accordance with the groupings indicated. For example, in 1951 there were 25 companies—14 NBCU, 4 MIRB, and 7 Independent—which had an annual premium volume between \$10,000 and \$49,999. In 1957 there were 23 NBCU, 6 MIRB, and 13 Independent, or a total of 42 companies within this same range. The accumulative compilation is perhaps most interesting, and we find that in 1951 there were 82 companies with less than \$50,000 annual automobile premiums written, while in 1957 there were 124 companies in this category.

Our problem is now defined in greater detail. It becomes apparent that many companies do not have sufficient premium volume to develop any significant credibility in establishing rates and relativities between territories and driver classifications. Rather than attempting to define the premium volume that could be considered adequate for a single company to rely on for rate making, it might be easier for us to agree on what is not sufficient experience to establish credibility in rate making. Could we not assume that \$200,000 in premium annually would be a minimum needed by a single company to establish even a small amount of credibility for rate making? We must remember that the premium volume tabulated represents all automobile bodily injury premiums. Thus, \$200,000 in premiums would be equivalent to about \$100,000 to \$120,000 in loss payments which, on the basis of current average claim cost of approximately \$575, would represent no more than 200 claims. If we divide this number of claims into the 7 territories and 5 or more driver classifications that are generally in use, it becomes apparent that \$200,000 premium in one state for a single company is hardly credible experience for the projection of rates.

If, for the purpose of discussion, we can assume that anything less than \$200,000 premium annually is not credible, then let us review the extent of the problem. We find that in 1951 there were 110 companies without credible experience, and in 1957 we had 162 companies, or 79.0% of all companies writing automobile insurance, which did not have credible experience in Wisconsin. With respect to the rating bureaus, we find that 90.1% of the NBCU and 73.7% of the MIRB companies are without credible experience. This is reasonable, since it might well be assumed that companies with smaller premium volume would find it economically feasible to affiliate with a rating bureau rather than attempting to staff a department that could cope with rates and manuals, policy forms, etc. We might also observe at this point that the NBCU, with a large proportion of companies with smaller premium volume, might tend to reflect a truer cross section of average insurance company operation.

We note that 69.8% of the companies filing rates on an independent basis had less than \$200,000 automobile bodily injury premiums from all sources in 1957. Thus we have a minimum of 67 companies which are permitted to file rates and define territories and driver classifica-

tions with almost a free hand, and yet individually their filings are based on underwriting experience that clearly lacks credibility. The rate analyst is confronted with the situation where, on one hand, the NBCU is making rates for at least 43.9% of the insurance companies transacting automobile liability insurance but the rates are based on only 11.6% of the insured private passenger automobiles. On the other hand, we have almost 70% of the companies which file rates on an independent basis without credible experience for the support of their filings.

Other interesting comparisons could be made from the tables which have been presented, and additional evidence could be developed to further point up the problem that exists. For example, a tabulation of a representative sample of the variations in rates and territories and driver classifications would lend support to the suspicion that competition without guidance and regulation is not a satisfactory rate making device. Such tabulations would further emphasize the almost chaotic state through which we are passing and would add little to this discussion.

Now that our problem is reasonably well identified and defined, let us consider some of the practical aspects of reviewing the filings of companies filing rates on an independent basis. A company can usually get together a semi-reasonable explanation in support of a filing. Frequently they rely heavily in their supporting information on what their principal competitors are doing. Obviously, the insurance department rate analyst must accept at face value the bulk of the supporting information submitted. Except for routine checks of the current annual statement and expense exhibit of the company, he has little else on which to verify a rate filing. The rate analyst cannot, for example, go to the company and verify the company allocation of expenses for expense exhibit purposes. He cannot go to the company offices and verify the reasonableness of the company outstanding claim reserves. It is seldom indeed that an individual company filing rates on an independent basis will present anything more than earned premiums and incurred losses in support of a rate filing. Further, consider that portion of section 204.40 (4), Wisconsin Statutes, which states:

“. . . A filing made by a rating organization shall be deemed to meet the requirements of sections 204.37 to 204.54 unless disapproved by the commissioner within the waiting period or any extension thereof. A filing made by an insurer for a kind of insurance or subdivision thereof as to which such insurer is not a member of or subscriber to a rating organization shall be deemed to meet the requirements of said sections unless disapproved by the commissioner after notice and hearing and findings made in accordance with the requirements of section 204.41 (1) (b).”

Thus, strict adherence to the statute requires a hearing prior to disapproval of any filing submitted by a company that is not affiliated

with a rating organization. Since most companies do not desire to become involved with a hearing, the usual procedure for the rate analyst when he discovers an objectionable feature in a filing is to point out to the company that a hearing will be necessary, and the desired correction is generally presented. However, the rate level in use with success by one company may be perfectly inadequate for another company due to method of acquisition, underwriting requirements, and length of time the company has been writing in a given area. It would seem that the rate analyst should have at his disposal some minimum standards by which he could measure a proposed filing. The statutes permit filings to be supported on the experience of other insurers or rating organizations, and would it not be difficult to suggest that an individual company filing rates on an independent basis should file a higher rate than a competitor? However, if there were available the average pure premiums of all drivers by territory and classification, we would have a guide to adequacy. The rate law contemplates that rates shall not be excessive or inadequate, and to let competition be the only factor in determining a rate level may produce a result that is contrary to the fundamentals of rate regulation and the public interest.

In considering the same subject of adequacy, we find that with our present procedures it is possible for a large company with ample surplus funds to use a rate level that would produce a statistically guaranteed underwriting loss. It would appear that a company could waive a profit and contingency load in their rate level if they so desired, and there seems to be no prohibition against a company reflecting other elements, such as investment income, in rate level. However, would it not be contrary to statute to permit a company to use a rate level which, from an actuarial point of view, would produce an underwriting loss even after allowance for investment income and waiver of profit and contingency considerations? Yet it is not uncommon for companies filing rates on an independent basis, in a time of increasing loss cost, to defer increasing what they know is an inadequate rate level in order that the local area involved can be subjected to an intensive advertising campaign designed to show the public that they have not increased rates. After such a company has effectively screened the area for the most desirable risks and have them on the books, then they suddenly are able to determine that an increase in rates is needed. This procedure may take anywhere from a few months to a year or more. It is not unique to Wisconsin or any specific area but seems inherent in our spirit of free competition. Who would argue against the conclusion that this is an unfair trade practice and a violation of the rate regulatory statutes? Whether it be a large company or small, the rate analyst is without power to cope with such a situation if he follows accepted methods of rate review.

The rate analyst sees only the company underwriting experience furnished to support rate filings as they are submitted. The statistical agencies furnish consolidations of underwriting experience for all

companies reporting, but this at the present time has little significance and is of little force in dealing with a single company. At the present time, the rate analyst becomes aware of excessive or inadequate rate levels of companies filing rates on an independent basis only when the company chooses to request a change in rate and submits underwriting experience as supporting information. The rating bureau statistical reports are furnished periodically, and the rate regulatory officials can review rate levels in the light of such underwriting experience. However, a consolidated statistical report of the companies filing rates on an independent basis is of little use at present since it represents an aggregate of many rate levels, and various definitions of driver classifications and territories. The relativities between the statistical plan territories and between statistical plan driver classifications which result from a comparison of the indicated pure premium are of some use, but the pure premium is the product of a composite of the divergent definitions of all independent companies, and thus it could hardly be used with any degree of confidence.

At present we have no integrated system providing a framework on which companies and rate regulatory officials alike could rely in the determination and review of rate levels. If there were such a system the companies and the public would profit from it equally. Is it not possible that much of the present difficulty the companies are experiencing in many areas is the result of the very conditions we are discussing here? Have not many rate levels been the product of competition and underwriting experience that lacked credibility? If there was a planned program where rates would be systematically increased or decreased in accordance with the trends of the loss and expense experience, the companies would fare equally well in the long run and at the same time they would create and build public confidence. If the insurers and the regulatory officials had confidence in a planned system, would not both parties derive many benefits from increased rates when they were needed and decreases in rates when they were indicated? Much of the present negotiating, maneuvering, and debate on details would be eliminated. Most insurance people agree that the present system of workmen's compensation rate making is perhaps the finest in operation today, and increases and decreases in rates in the over-all picture are about as automatic as they can be. It is this writer's opinion that the same result can be accomplished within the confines of the statutory authority existing today. It could be accomplished without violating a single freedom or privilege presently enjoyed by any company or rating organization.

We have shown that the rate regulatory statutes require the commissioner to promulgate reasonable rules and statistical plans reasonably adapted to the rating systems on file. It is also clear that the legislature intended and encouraged uniformity in insurance rates and practices to the extent necessary to protect the public interest and accomplish the end result that rates be neither excessive, inadequate nor unfairly discriminatory. We find that present procedures

for review and analysis may be effective to a certain degree in reviewing filings when submitted, but as a practical matter we do very little in respect to review of the existing filings of those companies which file rates independently. The scope of this paper is limited to the subject of liability insurance for private passenger automobiles, and to this extent I submit that it is not possible to attain the stated objectives of the rate regulatory law without:

- (a) a minimum uniform statistical plan which would underlie the statistical plans in use by each insurer, and
- (b) the establishment of an integrated rate filing procedure based on certain factors developed from the analysis of the consolidated underwriting experience of all companies.

The plan that I have in mind might well be divided into two separate programs which I shall designate as Phase I and Phase II. In Phase I, we shall discuss changes in procedure that could be accomplished within the statutes as they are now written. In Phase II, I shall attempt to look further into the future and discuss some possibilities that may require some broadening of the statutes.

First let us discuss a uniform statistical plan. This would be the cornerstone of Phase I. It would encompass, among other things, a method of reporting, on an accident year basis, the premiums, losses, exposures, and claims for the policy limits required by the financial responsibility law. Similar information would be required for the increased limits experience. Provision would be made to provide experience separately for each coverage, including such coverages as medical payments, death and disability, and uninsured motorist endorsements. From a plan such as this, we could get statewide pure premiums, claim frequency, and average claim cost. The trends of these rate making factors could be determined, and there would be a reasonable basis for predicting future events.

Our uniform statistical plan would erect certain territorial definitions which could well be sort of a common denominator of the present filings. The boundaries would be defined only after a detailed study of the principles and factors underlying the various territorial definitions now in use. All companies would be required to report their experience in accordance with the established territories. Companies wishing to depart in the matter of rate filings from the established territorial boundaries could do so by furnishing supporting information.

The uniform statistical plan would also define certain basic driver classifications. This too could be in effect a common denominator of all present filings. Companies wishing to depart from the established classifications in respect to rate filings could do so by furnishing supporting information in the same manner as they do at present.

In respect to the development of a uniform statistical plan, it is anticipated that each insurer and any other interested party would be given an opportunity to be heard on the matter. The insurance

commissioner has broad powers in the establishment of administrative rules. Notice also that section 204.49, Wisconsin Statutes, in reference to statistical plans, states that "The commissioner shall promulgate reasonable *rules* and statistical plans. . . ." It would seem that the procedure which we have outlined is not inconsistent with the statutes and, through the medium of a public hearing, every interested party would be given a chance to be heard. In this manner a workable uniform statistical plan could be developed. Anyone who was not satisfied with the end result could depart from the uniform statistical plan territories and classifications by merely providing supporting information such as required for present filings. The only restriction that would be necessary would be the requirement that all experience would have to be converted to the commissioner's territories and classifications when reported to the statistical agent.

The uniform statistical plan promulgated by the commissioner would represent the minimum requirements, and would not prevent the use of a more detailed statistical plan by any statistical agency. Any plan in use by a statistical agency would have to require at least as great detail as that provided by the commissioner's plan. The statistical reports and tabulations prepared by the statistical agency and furnished to the commissioner would be made on the basis of the commissioner's plan. Every company would be required to report its underwriting experience to one of the statistical agencies designated by the commissioner of insurance to assist in the collection of underwriting experience. Each company would be required to use, without deviation, the codes specified in the applicable statistical plan. Individual companies would not be permitted to devise their own system of codes merely because of small premium volume in certain classifications. We frequently find that many companies take the matter of statistical plans and reports much too lightly. It seems that quite often the people charged with the administration of the data processing department in company offices are basically accountants. The major concern is the balancing of the financial records, and they have little enthusiasm for the finer points associated with statistical plans. To permit any departure from the statistical plan codes is to invite disregard of the statistical plan requirements. In the first instance a machine accountant may request permission from the proper authority to amend or delete unused codes, but the second time he more likely than not will make an arbitrary combination of codes that will distort the underwriting experience. The statistical report would not show any impossible codes, and any error and distortion becomes permanent.

Once the uniform statistical plan is in use, then we can derive some basic factors from credible experience which can be used to facilitate rate filings. These basic factors will consist principally of pure premiums and number of claims for each driver classification in each territory. From this information we can obtain standard relativities between driver classifications and between territories. We also

will have claim frequency and average claim cost. The rate analyst will thus have an excellent yardstick for measuring rate filings for compliance with the statutes. The insurance company that lacks credible experience would have some basis for the rates they propose to use.

In respect to the filing of rates and the review thereof, it would be necessary to establish certain procedures. As a basic principle, it would be necessary that all rate filings reflect the territorial and classification relativities that are indicated from the consolidated experience. In addition, all rate filings would have as a foundation the pure premium indications of the uniform statistical plan experience. To this base the insurer or rating organization would add an applicable expense loading and an acceptable margin for profit and contingencies. A company or rating organization could depart from the uniform statistical plan pure premium indications by furnishing supporting information for the proposed filing. In order to avoid any unfair discrimination, it would seem necessary to permit only uniform departures by territory or classification. It would not be equitable, for example, to permit a company to file an unusually low rate for a single driver classification in a single territory. A company or rating bureau could depart from the standard relativities or pure premium for all classifications within a territory or in respect to a specific classification in all territories.

It is anticipated that the pure premiums established by the commissioner after review of the underwriting experience might well be modified on the basis of an acceptable formula. I have in mind that, in order to provide some stability, it would be desirable to use the most recent two or three-year experience period. Rather than a strict arithmetic average, it might be most feasible to use a weighted average such as 60-40 or 60-30-10. This, to a large extent, would build a composite trend factor into the pure premiums and thus territory and classification relativities. The establishment of pure premiums and relativities would be effective on the same specific date each year. It would be difficult to do this more frequently with any degree of accuracy because of the effect of the weather cycles on accidents. The period of time for which the experience is collected should be composed of 12-month increments. That is, we should use either 12 or 24 or 36-month experience periods in order to develop valid and credible experience. The pure premiums and relativities established by the commissioner would have the highest possible degree of credibility, since they would represent the experience of all drivers in the state or territory by classification. This would be a considerable improvement over the situation today where a fraction of the over-all state experience determines a majority of the rates and relativities in use. The commissioner's pure premiums and relativities would underlie all rate filings unless a company or rating organization could furnish information in support of the use of other factors.

It might be well to direct attention at this point to the fact that I have not proposed conversion of any premiums to a common level to reflect any approved departure from our basic factors. Actually, we have no common level because of the permissible variation in expense loading or pure premiums. The factors which we would establish are a product of claims statistics and thus are independent of rate level. Although the majority of companies use the same basic policy form, there are variations in use by some companies. If any given company was consistent in the use of a particular policy, the claims experience would reflect little distortion. The over-all average pure premiums would show a small increase or decrease, but the relativities would be substantially unaffected. The same rationalization can be used in respect to the argument that one group of companies or another can settle a given group of claims for greatly different amounts.

This then, in general terms, is Phase I of the proposed program for automobile liability insurance rates. There are several ways in which the proposed procedures could be installed. The new procedures could be imposed on all new filings submitted in the normal course of events. In order to expedite the transition, the commissioner could invite and encourage all companies and rating bureaus to present new filings. Or, if necessary, the commissioner could order new filings to be made by a specific date.

Now let us consider Phase II. This would probably require a change in the present rate regulatory statute, or at least a change in the present thinking in respect to the filing of rates. In brief, I have in mind that the commissioner would establish a rate or premium for a basic driver classification in a base territory. This rate or premium would reflect the over-all average pure premium for the classification and territory and the over-all average stock company expense and an acceptable allowance for profit and contingencies. The classification and territory pure premium relativities would be established in the same manner as proposed in Phase I. These relativities would then become factors to be applied to our basic rate or premium in order to produce the rate for any given driver classification and territory. A company or rating bureau, rather than filing rates, would then file a series of factors representing percentages of the established base. Supporting information would have to be furnished for any departure from the factors established by the commissioner. Any departure would have to be a uniform percentage from the commissioner's factors and would represent a combination of the expense and underwriting variation from average of a company or rating bureau.

I would propose that in this system the commissioner establish a new base premium and factors annually, to become effective on a specific date, such as September 1. In a manner similar to workmen's compensation, all policies of all companies would reflect the new rate base and factors on or after this date. No policy would be permitted to be cancelled or rewritten to take advantage of the new rates. The

supporting information for any departure from the standard factors would not be effective for more than one year, and in any event it would terminate on the effective date of the next annual revision of the commissioner's factors. This would have the effect of requiring annual filing of supporting information for any departure from the commissioner's factors. In addition, I suggest that it should be required that rate revisions be permitted only at this date and no other time. Thus, all drivers could look forward to a specific date each year for a revision of automobile rates based on the experience of the previous year. I submit that this would be a potent psychological weapon in the reduction of accidents and would be of greater value than any individual merit rating plan yet devised. There are also other advantages to a common rate change date. The companies and the public would benefit from a systematic program providing realistic rates related to current experience. The public would soon become accustomed to rate revisions and would accept them as a matter of fact. It would seem that this procedure would minimize, and to a large extent eliminate, extraneous pressures which are not actuarial in origin.

Now that we would have a common rate level, it would be an easy task for each company to expand its premiums to the common rate level when reporting underwriting experience to the statistical agents. Since Phase II of this program is superimposed on the principal elements of Phase I, we would then have both premiums and losses to review in our determination of whether or not the rate level is excessive or inadequate. It would also seem possible for the companies to record for statistical purposes only the applicable codes and the earned exposures. If the desired accuracy could be attained in computing earned exposures, then it would be a matter only of applying the various factors and earned exposure to the base premium in order to develop earned premiums. The earned exposure for a 6 or 12-months' policy would normally be a two-digit figure, as compared to five digits usually involved with dollars and cents of premium, and this would appear to be a method by which more information could be incorporated on one statistical punch card.

This completes a general outline of my thoughts concerning a uniform statistical plan and integrated rate filing procedure for private passenger automobiles. Throughout this discussion I have been principally concerned with bodily injury and property damage liability insurance for private passenger automobiles. It would appear that many of the same procedures could be applied to the physical damage coverages. The problems associated with physical damage rates and suggested solutions could well be the subject of another such paper.