

AN AMERICAN ACCIDENT TABLE.

BY

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When the first workmen's compensation laws became effective and the insurance carriers faced the problem of establishing rates to employers for this form of coverage, it became necessary to establish some method for measuring the difference in costs between the varying benefit scales of state laws. For this purpose an industrial accident distribution according to the nature of injury was required and, due to an almost complete lack of American statistics, Dr. Rubinow compiled his Standard Accident Table from European data.

Since that time efforts have been made to obtain satisfactory American statistics, but the difficulty of coordinating the statistical records published by the various state accident commissions has made it practically impossible to combine results, and the statistics of a single state, no matter how carefully compiled, have been too limited for dependability. However, the various Boards and Bureaus which call for Schedule "Z" reports have realized the necessity of securing adequate accident data, and for the first time, in 1919, uniformly called upon the insurance carriers to report the number of death, permanent total, permanent partial, and temporary total cases upon which compensation had been paid. When the National Council took up its work of revising workmen's compensation rates for the various states, 1919 Schedule "Z" was available, and the accident distribution obtained therefrom was of sufficient volume to form a dependable basis for a new accident table. It was necessary for the National Council in its work to calculate the value of amendments to the state compensation laws, and it was desirable that such calculations should be based upon the latest available accident distribution. Therefore, the task of developing a new accident table was undertaken.

From Schedule "Z" for policy years 1916 and 1917 were obtained the total number of fatal, permanent total, permanent par-

tial, and temporary total cases compensated in all compensation states where stock and mutual companies were operating, with the exception of Maine, Massachusetts, California, and Pennsylvania. Maine and Massachusetts failed to report number of temporary total and permanent partial cases. Pennsylvania compensates as temporary total some minor dismemberment cases which, in other states, are compensated on a schedule basis and included in the reports as permanent partial disability. Massachusetts reported by nature of payment rather than nature of injury. That is, temporary total payments made in permanent partial cases were reported as temporary total instead of permanent partial as in other states. The California reports were not complete for 1916, the number of temporary total cases not having been given, hence only 1917 figures were used for this State. Four states, New York, New Jersey, Massachusetts, and Wisconsin, reported a small number of indeterminate cases, or injuries which had not yet developed sufficiently to enable a determination of their final outcome. These were distributed as follows: .1 to permanent total, .3 to permanent partial, .6 to temporary total, such distribution having been used in the making of coal mine rates from Pennsylvania experience. The combined results showed a total of 271,173 accidents for which compensation had been paid.

The first problem presenting itself was that of determining from the number of compensable cases reported, the number of tabulatable accidents, or those lasting beyond the day or shift in which the injury occurred. The waiting period varied from state to state, and in many cases had been changed at some time during the period covered by policy years 1916 and 1917. An assumption was made that the business, and therefore the number of accidents reported, was evenly distributed throughout the year, and an adjustment factor was determined by the use of a distribution of temporary total disability, which, when applied to the number of compensable temporary total cases, would produce the number of tabulatable accidents excluding permanent and fatal. For this purpose we used the ungraduated data obtained from state reports as described hereafter. For example, in California the number of temporary total cases reported was 12,048. The waiting period in 1916 was two weeks, but on January 1, 1918, was changed to ten days. One-half of the period covered by policy year 1917 was affected by the two weeks waiting period, and one-half by the ten

days waiting period. According to the distribution of temporary total disability (Table B), 32,793 cases out of a total of 95,388 last longer than two weeks. Therefore, the quotient of 95,388 divided by 32,793, or 2.9088, is the factor which must be applied to the number of cases lasting more than two weeks, to obtain the total number of tabulatable accidents. The factor obtained similarly to increase the number of cases lasting more than ten days, to number of tabulatable accidents, is 2.3128. Giving each of these factors a weight of one-half, the resultant factor is 2.6108, which, when applied to the 12,048 cases compensated, shows a total of 31,455 tabulatable temporary total cases. The material used for each state and the adjustment factors are given in detail in Table "A." With this adjustment made for all states, a grand total of 637,088 cases was obtained. Reduced to the basis of 100,000 accidents the results are as follows:

Fatal	762
Permanent Total	62
Permanent Partial	3,788
Temporary Total	95,388

A distribution was made for each of the four sections of the country—Eastern, Central, Western, and Southern states—and a comparison of results is interesting, although care should be exercised in the proper use of such figures. The distribution follows:

	Fatal.	Permanent Total.	Permanent Partial.	Temporary Total.
Eastern	728	63	4,154	95,055
Central	732	66	3,777	95,425
Western	1,035	46	2,601	96,318
Southern	855	55	2,549	96,541

In the 1920 rate revision, country wide partial pure premiums were established, and exception pure premiums adopted for any state whose experience was of substantial volume and showed results at variance with those for the country as a whole. The accident table was used to compute the increase in cost due to amendments in the law, three amendment factors being calculated for each law, one for "D. and P. T. D." cost, one for "All Other," and one for "Medical." Thus the fact that the western states show a greater proportion of death cases was reflected in the pure pre-

miums established and the accident table was used only to compute amount of increase in cost.

Duration of Temporary Total Disability.—For the duration of temporary total disability, the only reports available were those of state industrial accident commissions. It was necessary to exercise considerable care in their use, since some states presenting good reports of this character had not compiled them on such a basis as would make it possible to combine results with those of other states. For example, Massachusetts reported duration of total disability in all non-fatal cases. Washington, California, and Ohio reported for temporary total cases only. Some states reported duration of disability by days; others reported it by weeks. In order to obtain as broad a spread as possible, the reports of all states showing a distribution for duration of disability in temporary total cases only was used, obtaining first a graduation by one week periods and later breaking this up by the use of the data for states showing such distribution by days. The first summation (see Table "B") showed the following distribution:

1 week or less	223,698
1 to 2 weeks	88,275
2 to 3 weeks	54,452
3 to 4 weeks	31,246
4 to 13 weeks	67,028
13 and over	10,724
	475,423

The next step was to break up the totals for one and two weeks to secure the distribution by days, since many states have a waiting period of ten days and one has a waiting period of three days only. This was accomplished by using the proportions shown by the California data. The period from four to thirteen weeks was broken up by means of statistics from six states, Washington, Ohio, California, West Virginia, Oregon, and Wisconsin. Four states, Washington, California, West Virginia, and Oregon, furnished data for the division of the period over thirteen weeks in duration. Finally the results were reduced to the basis of 95,388 tabulatable temporary total cases, the distribution was plotted and the curve showed decided irregularities at the ten-day, one week, two weeks, two, three, four, and five-month periods. It is reasonable to suppose that many men whose disabilities last approximately either

one or two weeks, return to work at the end of the weekly period rather than just before or just after its close. However, the same psychological reason does not hold for the ten-day period, and no satisfactory reason for an irregularity at this point has been suggested. It was therefore decided to ignore it. It is possible that the same cause assigned for the break at the end of one and two weeks is also felt at the end of two, three, four, and five months. No increase was evident at one month, however, and the statistics at this end of the curve were not of sufficient volume to prove that the irregularity was not due to chance. The distribution was therefore smoothed graphically throughout, except at the one and two week periods.

Very little material was available for a distribution of temporary total disability in permanent partial cases, only two states, Cali-

Duration.	Cal. '18, Ore. '15.	On Basis of 3,788 Total.	Smoothed Distribu- tion.	%.	% Standard Table.
Under 1 week	81	206	206	5.5	5.7
1- 2 weeks	67	171	171	4.5	5.6
2- 3 "	106	270	270	7.1	5.9
3- 4 "	142	362	362	9.5	6.5
4- 5 "	149	380	380	10.0	7.8
5- 6 "	127	324	324	8.6	7.5
6- 7 "	107	273	273	7.2	7.0
7- 8 "	71	181	224	5.9	6.6
8- 9 "	90	229	193	5.1	6.9
9-10 "	56	143	166	4.4	5.2
10-11 "	55	140	141	3.7	4.7
11-12 "	52	133	122	3.2	4.3
12-13 "	53	135	105	2.8	4.0
13-14 "	36	92	92		
14-15 "	21	53	71		
15-16 "	26	66	59		
16-17 "	20	51	51		
17-18 "	24	61	48		
18-19 "	14	36	45		
19-20 "	14	36	41		
20-21 "	13	33	39		
21-22 "	14	36	37		
22-23 "	17	43	34		
23-24 "	12	31	33		
24-25 "	13	33	31		
25-26 "	12	31	30		
6- 7 months	31	79	79		
7- 8 "	17	43	52		
8- 9 "	20	51	39		
9-10 "	7	18	29		
10-11 "	9	23	22		
11-12 "	10	25	19		
				22.5	22.3
	1,486	3,788	3,788	100.0	100.0

fornia and Oregon, having presented such statistics and these for only one year each. However, the results followed very closely those obtained by Dr. Rubinow in the Standard Accident Table and it was felt that the data when smoothed was sufficiently reliable for the present purpose. The comparison with Dr. Rubinow's results obtained by the use of Russian statistics which is presented on the preceding page is interesting.

Permanent Partial Disability.—The best material available for a distribution of permanent partial disability was a report furnished by the Travelers Insurance Company covering their experience in all compensation states where the Company operated, from January 1, 1916, to June 30, 1919, developments being brought down to January 1, 1920. This tabulation which showed 9464 permanent partial injuries, distributed as to nature of injury, was a detailed one and distinguished between amputation, loss of use and partial loss of use of members. Some of the state reports consulted gave distributions for dismemberment, but included no data as to loss of use and failed to state the number of permanent partial cases not dismemberment. Most of the compensation laws at the present time state that total loss of use of any member shall be compensated the same as loss of such member. It was therefore deemed advisable to construct a table covering the combined loss rather than amputation alone. Wisconsin state reports from 1914 to 1918 have been compiled on the same basis as the Travelers' table, and the combined statistics showed a total of 12,923 cases, which, when reduced to the basis of 100,000 accidents showed the following division:

Dismemberment or total loss of use	2,754
Other permanent partial	1,034

For the dismemberment distribution it was possible to use Ohio and Nevada reports covering an additional 2,193 cases. (Table C.)

Few state laws make any distinction in the amount paid for injury to a major or minor member. It was felt that the figures available for such division were too limited to make results entirely dependable, and therefore such a partition was not warranted.

In compensating permanent partial disability other than dismemberment, many state laws specify that the amount paid for injury to any member shall be determined by the relation of that injury to total loss of the member. There are very few permanent

partial cases which cannot be related directly to some dismemberment in the schedule. Other states, however, specify that such injury shall be compensated on a basis of loss in earning capacity, and a maximum period for the duration of payments is specified. It is felt that in such cases the commissions in charge often fix the duration of compensation, so that the amount paid shall bear the proper relation to that paid for total loss of the same member. It was necessary, therefore, for the purpose of law differential calculations, to determine the relation which partial disability bears to total loss or loss of use. The Wisconsin and Oregon state reports showed a total of 1,102 cases of permanent partial not dismemberment, with an average disability of 44.0 per cent. of total loss, such reports being based on the degree of impairment of the member affected. In the tabulation of the Travelers Insurance Company 2,156 cases of permanent partial not dismemberment, including 25 per cent., 50 per cent., and 75 per cent. of loss of use of various members, showed an average of 43.5 per cent. of total loss of use. 354 cases of permanent partial could not be related to dismemberment and were distributed as follows:

	No. of Cases
Loss of one leg at the hip and injury to other.....	1
Loss of one leg at the ankle and injury to other	1
Tip of forefinger	77
Loss of one eye and injury to other	1
Permanent injury to head	49
Internal injuries	63
Spinal trouble	38
Loss of movement at the knee	7
Loss of grasping power	16
50 per cent. loss of grasping power	3
Permanent partial—not otherwise classified	98

It will be noted that some of the injuries, especially multiple dismemberments, would probably result in a large degree of disability, while others, such as the 77 cases of loss of tip of forefinger, would amount to very little and in many states might receive no compensation except during the period of total disability. On the whole, a safe assumption seemed to be that the average cost per case of a permanent partial disability, not dismemberment, would equal 55 per cent. of the average cost per case for total loss or loss of use.

Many of the states distinguish between major and minor permanent partial cases, and the National Council, in its "Instructions for the Preparation of Schedule 'Z'—1920," defines as major permanent partial

- (a) "Every permanent injury, not constituting permanent total disability, which involves the loss of sight of an eye or the loss of a hand, foot, arm, or leg;
- (b) "Every permanent injury involving the impairment to the extent of 50 per cent. or more of a hand, foot, arm or leg;
- (c) "Any permanent injury, whether enumerated above or not, which is compensated on the basis of 25 per cent. or more of permanent total disability (or 25 per cent. or more of the full benefit for permanent total disability allowed under the Act applicable thereto)."

The distribution furnished by the Travelers Insurance Company enabled us to make a division in accordance with these instructions.

Permanent Total.—Such a small proportion of industrial accidents result in permanent total disability that it was difficult to obtain any satisfactory statistics concerning them. However, the laws of a few states make it necessary to estimate the number of cases of loss of both legs, both arms, and both eyes. The following tabulation is a combination of such material as could be combined from the state reports of Wisconsin, 1915 to 1918; Ohio, 1914–1916; Washington, 1917–1918; the reports of the Travelers Insurance Company before referred to, and the individual reports sent to the National Council as a part of Schedule "Z":

Nature of Injury	No. Cases	Reduced Totals
Loss or loss of use of both feet	1	
Loss or loss of use of both legs	32	5
Loss or loss of use of both hands	11	2
Loss or loss of use of both arms	6	1
Loss or loss of use of both eyes	54	7
Paralysis	28	4
Injury to back or spine	64	8
Injury to head	69	9
Fracture of back	11	2
General mental deficiency	10	2
Insanity	5	
Not otherwise classified	163	22
	<u>454</u>	<u>62</u>

253 permanent total cases reported in Schedule "Z" states for policy years 1916 and 1917 showed an average age of 42 years.

Distribution of Dependents in Fatal Cases.—Schedule "Z" as reported for policy years 1916 and 1917 called for individual death reports stating the number and relationship of dependents. In many of the states, such as Connecticut, where the amount of compensation is not determined by the number of dependents, the companies evidently did not secure such information in all cases, so that the reports available for use in determining the distribution of dependents were largely based on accidents in those states* where the amount of compensation is determined by number and relationship of dependents. Our study was based on 5,877 actual fatal cases. The experience was punched on Hollerith cards which were then run through the tabulating machine and totals recorded as follows:

Total Distribution	No. Cases
No dependents	1,343
Widow and no children	1,369
Widow and 1 child	608
Widow and 2 children	524
Widow and 3 children	361
Widow and 4 children	219
Widow and 5 children	133
Widow and 6 children	53
Widow and 7 children	39
Widow and 8 or 9 children	19
One orphan	99
Two orphans	45
Three orphans	22
Four orphans	17
Five orphans	8
Six or more orphans	7
One parent	509
Two parents	269
One brother or sister	54
Two brothers or sisters	18
Three brothers or sisters	3
Four brothers or sisters	3
Five brothers or sisters	2

* States for which experience was available: New York, Connecticut, Maine, Massachusetts, New Jersey, Pennsylvania, Rhode Island, Vermont, Maryland, Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Nebraska, South Dakota, Wisconsin, Colorado, Montana, New Mexico, Utah, Kentucky, Louisiana, Oklahoma, and Texas.

One parent and one brother or sister	36
One parent and two brothers or sisters	26
One parent and three brothers or sisters	8
One parent and four or more brothers or sisters	6
Two parents and one brother or sister	11
Two parents and two brothers or sisters	4
Two parents and three brothers or sisters	5
Two parents and four or more brothers and sisters	9
Widow and one parent	11
Widow, no child, other dependents	3
Widow, one child, other dependents	3
Widow, two children, other dependents	7
Widow, three children, other dependents	4
Other dependents (average number 3)	20
	<u>5,877</u>

An investigation was also conducted to determine the average age of dependents and the following data shows conclusively that satisfactory results are not obtainable by assuming a single average in the case of either widows or parents.

	No. Cases.	Average Age.
Widow with no children	538	47.3
Widow with one child	317	36.3
Widow with two children	272	35.1
Widow with three children	167	35.6
All others	257	36.4
	<u>1,551</u>	<u>39.8</u>

The variation in the case of a widow with no children is accounted for by the fact that in the majority of these cases the children have reached an age beyond that specified in the law for the termination of dependency. Such an average is of course lowered by the cases of very young widows. The variation was so great that it seemed best to make a distinction in this case, and 47 was used as an average age for widows with no children and 36 for widows with children.

The 3638 children showed an average age of 8.0 years, and the 147 brothers and sisters, an average age of 10.9 years.

The average age of dependent parents showed a marked difference in cases where there were also brothers and sisters and cases where there were none. Fifty cases of parents with brothers and sisters show an average age of 50.3 years; 362 cases of parents with no brothers or sisters show an average age of 61.2 years. This difference is readily accounted for by the fact that where there are dependent brothers and sisters, the parents are probably of middle age, the family usually consisting of a widow with young children,

while in other cases the dependent parents are too old for self-support.

The results may be summarized in the following tabular form:

GENERAL DISTRIBUTION.

Fatal	762
Permanent Total	62
Permanent Partial	3,788
Major Permanent Partial	924
Minor Permanent Partial	2,864
Temporary Total	95,388
	<u>100,000</u>

DURATION OF TEMPORARY TOTAL DISABILITY.

Temporary Total.		Permanent Partial.	
Duration.	No. of Cases.	Duration.	No. of Cases.
1 day	8,823	1 wk. or less	206
2 days	8,086	1- 2 weeks	171
3 "	7,282	2- 3 " "	270
4 "	6,014	3- 4 " "	362
5 "	5,255	4- 5 " "	380
6 "	4,606	5- 6 " "	324
7 "	4,817	6- 7 " "	273
8 "	3,090	7- 8 " "	224
9 "	3,074	8- 9 " "	193
10 "	2,740	9-10 " "	166
11 "	2,475	10-11 " "	141
12 "	2,275	11-12 " "	122
13 "	1,868	12-13 " "	105
14 "	2,190	13-14 " "	92
2- 3 weeks	10,925	14-15 " "	71
3- 4 "	6,269	15-16 " "	59
4- 5 "	4,345	16-17 " "	51
5- 6 "	2,674	17-18 " "	48
6- 7 "	1,923	18-19 " "	45
7- 8 "	1,298	19-20 " "	41
8- 9 "	966	20-21 " "	39
9-10 "	745	21-22 " "	37
10-11 "	549	22-23 " "	34
11-12 "	447	23-24 " "	33
12-13 "	358	24-25 " "	31
13-14 "	296	25-26 " "	30
14-15 "	254	6- 7 months	79
15-16 "	216	7- 8 " "	52
16-17 "	182	8- 9 " "	39
17-18 "	154	9-10 " "	29
18-19 "	131	10-11 " "	22
19-20 "	110	11-12 " "	19
20-21 "	94		
21-22 "	79		
22-23 "	68		
23-24 "	56		
24-25 "	45		
Over 25 weeks	609		
	<u>95,388</u>		<u>3,788</u>

Permanent Partial Disability	3,788
Dismemberment or Loss of Use	2,704
Arm	61
Hand	86
Thumb	96
One phalange of thumb	152
Index finger	301
One phalange index finger	261
Second finger	147
One phalange second finger	172
Third finger	104
One phalange third finger	89
Fourth finger	119
One phalange fourth finger	65
Thumb or finger and loss of or injury to other fingers	532
Leg	62
Foot	43
Great toe	37
One phalange great toe	16
One toe other than great toe	19
One phalange of toe, not great toe.....	11
One toe and loss of or injury to other toes.	35
Hearing, one ear	5
Hearing, both ears	1
Eye	290
Disfigurement	50
Other Permanent Partial	1,034

DISTRIBUTION OF FATAL CASES.

No dependents	174
Widow alone	177
Widow and children	253
Widow and one child	79
Widow and two children	68
Widow and three children	47
Widow and four children	28
Widow and five children	17
Widow and six or more*	14
Orphans	26
1 orphan	13
2 orphans	6
3 orphans	3
4 orphans	2
5 or more† orphans	2

* Average number of children, 7.

† Average number of orphans, 6.

Widow and other dependents	4
Widow and one parent	2
Widow and children* with other dependents	2
Parents and/or brothers or sisters	125
One parent	66
Two parents	35
One brother or sister	7
Two brothers or sisters	2
Three or more† brothers or sisters	1
One parent and one brother or sister	5
One parent and two brothers or sisters	3
One parent and three or more brothers or sisters	2
Two parents and brothers or sisters‡	4
Other dependents§	3
Total	762

Comparison with Standard Accident Table.—The following comparison between the above tabulation based on American statistics and the Standard Accident Table based on European statistics is interesting:

	American Table.	Standard Table.
Fatal	762	932
Permanent Total	62	110
Permanent Partial	3,788	4,765
Temporary Total	95,388	94,193

The new table shows a smaller number of serious accidents, yet the results are remarkably close, considering the wide difference in the basic material; in fact the difference is less than that shown between sections of the United States.

Probably the greatest divergence is shown in the dismemberment schedule, but it must be remembered that the Standard Table lists dismemberments while the figures of the American Table include total loss of use as well as amputation. This fact must also be remembered in comparing the 55 per cent. degree of disability adopted for permanent partial cases, not dismemberment, with the 70 per cent. formerly used in the calculation of law differentials.¶ It is assumed that the 70 per cent. formerly used included total loss of use, which has now been included in the dismemberment schedule. Other interesting comparisons may be made, but the striking feature is the similarity between the two distributions.

* Average number of children, 2.

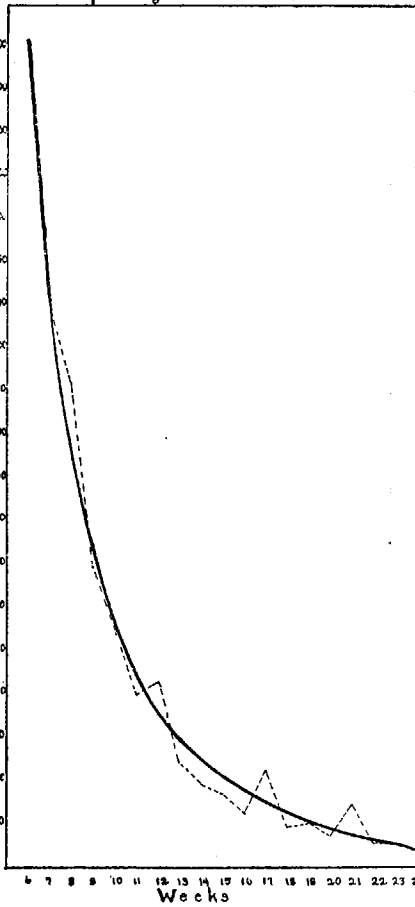
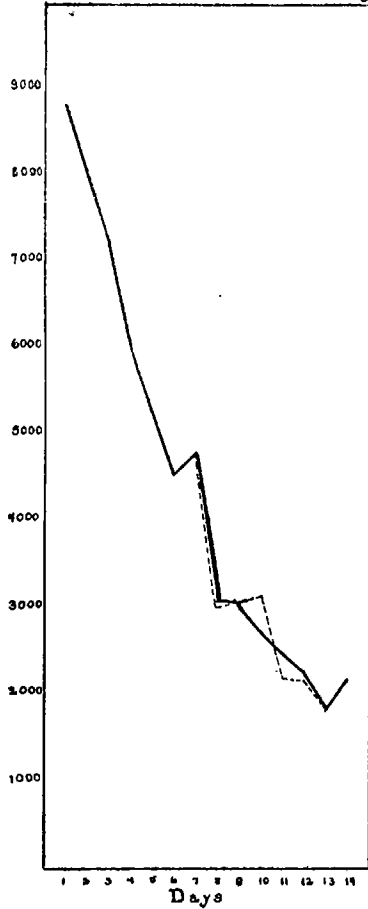
† Average number of brothers and sisters, 4.

‡ Average number of brothers and sisters, 3.

§ Average number of dependents, 3.

¶ See Dr. I. M. Rubinow's "Theory and Practice of Law Differentials," *Proceedings*, Vol. IV.

Duration of Disability in Temporary Total Cases.



Duration of T. T. Disability in Permanent Partial Cases

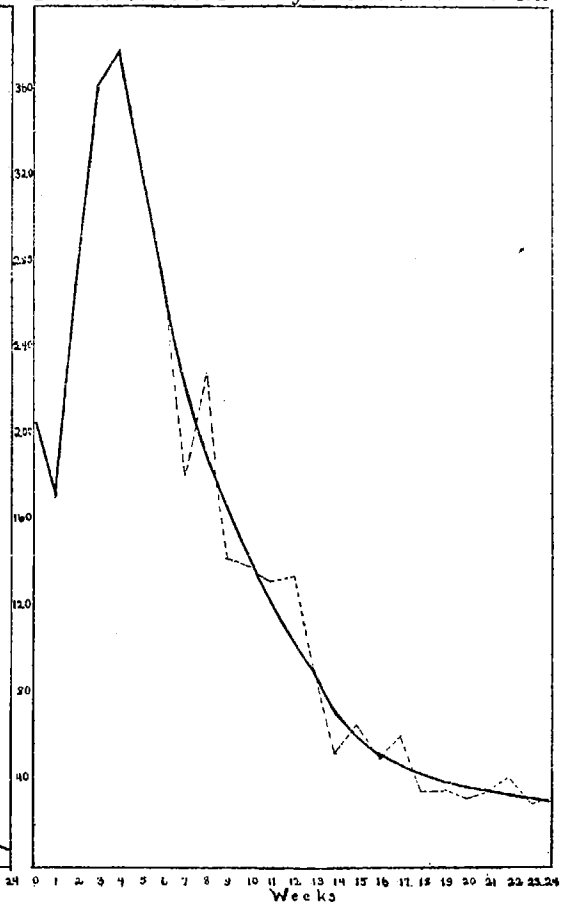


TABLE A.
ACCIDENTS REPORTED ON SCHEDULE Z, POLICY YEARS 1916 AND 1917.

State.	Fatal.	Perm. Total.	Perm. Part.	Temp. Total.	Waiting Period.	Adjustment Factor.	Modified T. T.	Total.
New York	1,534	161	8,721	75,170	2 weeks	2.9087	218,647	
Connecticut	193	12	1,075	11,354	10 days; 7-1-17, 1 wk.	2.1007	23,851	
New Jersey	460	24	3,060	16,085	2 weeks	2.9087	46,786	
Rhode Island	45	6	235	2,708	2 wk; 6-1-17, 2 wk. retroactive at 4	2.9087	7,877	
Vermont	49	2	207	1,577	2 weeks	2.9087	4,587	
Maryland	136	4	488	4,707	2 weeks	2.9087	13,691	
Total	2,417	209	13,786				315,439	331,851
Illinois	425	33	2,624	35,112	1 week	1.8887	66,316	
Indiana	175	12	1,123	10,122	2 wks; 5-31-17, 1 wk.	2.3570	23,858	
Iowa	124	14	470	3,884	2 weeks	2.9087	11,297	
Kansas	58	5	193	2,094	2 wks; 5-26-17, 1 wk.	2.3570	4,936	
Michigan	265	31	1,539	12,516	2 wks, retroactive at 8	2.9087	36,405	
Minnesota	173	15	655	7,214	2 wks; 4-17, 1 wk.	2.2925	16,538	
Nebraska	53	4	110	2,035	2 wks. retroactive at 8; 7-24-17, 1 wk. retroactive at 6	2.4412	4,968	
South Dakota	10	0	18	177	2 weeks, retroactive at 8	2.9087	515	
Wisconsin	233	22	1,085	17,307	1 wk. retroactive at 4	1.8887	32,688	
Total	1,516	136	7,817				197,521	206,990
California	291	10	782	12,048	2 wks; 1-1-18, 10 days	2.6108	31,455	
Colorado	125	9	243	2,152	3 wks; 4-23-17, 2 weeks	3.5142	7,563	
Montana	23	0	88	794	2 weeks	2.9087	2,310	
New Mexico	6	0	22	84	3 weeks	4.3618	366	
Utah	27	2	51	963	10 days	2.3127	2,227	
Total	472	21	1,186				43,921	45,600
Kentucky	74	4	317	3,202	2 weeks	2.9087	9,314	
Louisiana	105	3	169	4,579	1 wk. retroactive at 6	1.8887	8,648	
Oklahoma	104	8	230	2,763	2 weeks	2.9087	8,037	
Texas	167	14	576	13,145	1 week	1.8887	24,827	
Total	450	29	1,342				50,826	52,647
Grand Total	4,855	395	24,131				607,707	637,088
Reduced to 100,000 Basis	762	62	3,788				95,388	100,000

AN AMERICAN ACCIDENT TABLE.

TABLE B.
DURATION OF TEMPORARY TOTAL DISABILITY.

(1) Duration.	(2) Wash. '13 to '17.	(3) Ohio 1-1-'14 to 6-30-'15.	(4) Ohio 5-15-'15 to 5-15-'16.	(5) Calif. '15 to '18.	(6) W. Va. 10-1-'13 to 6-30-'14.	(7) Oregon 6-30-'15 to 6-30-'17.
1 day.....				19,809		
2 days.....				18,153		
3 ".....				16,349		
4 ".....				13,502		
5 ".....				11,798		
6 ".....				10,341		
7 ".....	12,313*	52,359	48,391	10,815	4,918	4,136
8 ".....				6,738		
9 ".....				6,847		
10 ".....				7,043		
11 ".....				4,917		
12 ".....				4,870		
13 ".....				4,160		
14 ".....	17,489	15,591	10,509	4,878	1,451	3,099
2-3 weeks..	11,169	10,378	12,328	17,463	1,208	1,537
3-4 ".....	6,658	6,053	4,589	12,024	838	854
4-5 ".....	5,499		1,913	9,046	554	563
5-6 ".....	3,006		885	6,253	352	389
6-7 ".....	2,425		521	4,571	222	302
7-8 ".....	1,505		338	3,207	160	148
8-9 ".....	1,810		198	2,512	131	143
9-10 ".....	780		155	1,780	105	86
10-11 ".....	786		119	1,259	71	67
11-12 ".....	485		80	1,039	56	35
12-13 ".....	899	11,124	61	815	53	56
13-14 ".....	280			664	49	
14-15 ".....	246			510	35	
15-16 ".....	250			418	24	
16-17 ".....	127			360	28	
17-18 ".....	526			355	31	
18-19 ".....	137			239	19	
19-20 ".....	163			235	22	
20-21 ".....	100			176	21	
21-22 ".....	378			209	12	
22-23 ".....	83			128	18	
23-24 ".....	87			132	8	
24-25 ".....	72			102	9	
Over 25.....	1,507	1,386	276	818	148	274
	68,780	96,891	80,363	204,535	10,543	11,689

* Represents total for 1 week. Other totals are similarly inserted on the last line of the group which is summed.

TABLE B—(continued).

DURATION OF TEMPORARY TOTAL DISABILITY.

Duration.	(8) Oregon 1915.	(9) Wisconsin 7-1-'16 to 7-1-'18.	(10) Total (2) to (8) Inclusive.	(11) Total (2) and (4) to (9) Inclusive.	(12) Total (2) + (5) + (6) + (8).	(13) Total Reduced to 95,388.
1 day.....						8,823
2 days.....		No				8,086
3 ".....						7,282
4 ".....		data				6,014
5 ".....						5,255
6 ".....		for				4,606
7 ".....	814	—	223,698	—	—	4,817
8 ".....						3,025
9 ".....		first				3,074
10 ".....						3,162
11 ".....		two				2,207
12 ".....						2,186
13 ".....		weeks				1,868
14 ".....	683	—	88,275	—	—	2,190
2-3 weeks..	369	6,919	54,452	—	—	10,925
3-4 ".....	230	3,870	31,246	—	—	6,269
4-5 ".....	180	2,700		20,455		4,345
5-6 ".....	84	1,616		12,585		2,674
6-7 ".....	61	950		9,052		1,923
7-8 ".....	32	722		6,112		1,298
8-9 ".....	36	451		5,281		1,122
9-10 ".....	20	352		3,278		696
10-11 ".....	17	266		2,585		549
12-12 ".....	11	188		1,894		402
12-13 ".....	23	159	67,028	2,066	—	439
13-14 ".....	6				999	245
14-15 ".....	6				797	195
15-16 ".....	6				698	171
16-17 ".....	4				519	127
17-18 ".....	9				921	226
18-19 ".....	2				397	97
19-20 ".....	2				422	103
20-21 ".....	2				299	73
21-22 ".....	3				602	147
22-23 ".....	3				232	57
23-24 ".....	2				229	56
24-25 ".....	2				185	45
Over 25.....	15	962	10,724	—	2,488	609
	2,622		475,423			95,388

TABLE C.
DISMEMBERMENT OR TOTAL LOSS OF USE.

Nature of Injury.	Travelers.		Loss or Loss of Use.		
	Amputation.	Loss of Use.	Wisconsin '14 to '18.	Total.	Ohio Jan. '14 to July '15.
Loss of arm	53	48	17	118	
“ “ fore arm	47	45	12	104	
“ “ arm					33
Loss of hand	156	122	27	305	54
“ “ thumb	235	60	31	326	74
“ “ 1 phalange of thumb	383		162	545	90
“ “ forefinger	744	132	190	1,066	189
“ “ phalange of forefinger	514		345	859	230
“ “ 2nd finger	344	55	124	523	94
“ “ phalange of 2nd finger	275		227	502	216
“ “ 3rd finger	273	40	72	385	52
“ “ phalange of 3rd finger	154		119	273	99
“ “ 4th finger	266	52	86	404	87
“ “ phalange of 4th finger	94		96	190	81
“ “ thumb and fingers	26	10	16	52	43
“ “ 2 or more fingers	1,000	79	180	1,259	
“ “ fingers and injuries to others	141	7	322	470	403
“ “ leg	45	52	6	103	11
“ “ leg at or below knee	54	53	40	147	
“ “ foot	82	59	10	151	26
“ “ great toe	73	30	25	128	16
“ “ 1 phalange great toe	33		24	57	
“ “ 1 other toe	40		24	64	41
“ “ 1 phalange other toe	6		31	37	
“ “ One toe and loss of or injury to other toes	84		36	120	28
Loss of hearing one ear		10	1	11	6
“ “ 2 ears		3	2	5	0
“ “ sight in one eye		792	196	988	216
Disfigurement		183	26	209	
Sub Total	5,122	1,832	2,447	9,401	2,089
Other permanent partial		2,510	1,012	3,522	
Total	9,464		3,459	12,923	

TABLE C—(continued).

DISMEMBERMENT OR TOTAL LOSS OF USE.

Nature of Injury.	Loss or Loss of Use.				
	Nevada July '13 to July '16.	Grand Total.	Reduced Total.		
Loss of arm	}	2	257	61	
“ “ forearm		3	362	86	
“ “ hand		4	404	96	
“ “ thumb		3	638	152	
“ “ 1 phalange of thumb		11	1,266	301	
“ “ forefinger		8	1,097	261	
“ “ phalange of forefinger		4	621	147	
“ “ 2nd finger		8	726	172	
“ “ phalange of 2nd finger		1	438	104	
“ “ 3rd finger		3	375	89	
“ “ phalange of 3rd finger		9	500	119	
“ “ 4th finger		3	274	65	
“ “ phalange 4th finger		}	12	2,239	532
“ “ thumb and fingers					
“ “ 2 or more fingers		}	2	263	62
“ “ fingers and injuries to others					
“ “ leg		}	3	180	43
“ “ leg at or below knee					
“ “ foot		}	7	498	118
“ “ great toe					
“ “ 1 phalange great toe					
“ “ 1 other toe					
“ “ 1 phalange other toe					
“ “ One toe and loss of or injury to other toes	3	20	5		
Loss of hearing one ear	“	5	1		
“ “ “ 2 ears	18	1,222	290		
“ “ sight in one eye		209	50		
Disfigurement					
Sub Total	104	11,594	2,754		
Other permanent partial			1,034		
Total			3,788		

TABLE D.
DEGREE OF DISABILITY IN PERMANENT PARTIAL, NOT DISMEMBERMENT.

Degree of Disability.	No. of Cases.	Total No. Cases.	Total % Disability.
Wisconsin 1914			
.11-.25	47		
.26-.40	18		
.41-.60	27		
.61-.80	21		
.81-.99	48		
Total		161	8,604.0
Wisconsin 1915			
0-.16 $\frac{2}{3}$	24		
.17-.33 $\frac{1}{3}$	28		
.34-.50	22		
.51-.66 $\frac{2}{3}$	37		
.67-.83 $\frac{1}{3}$	24		
.84-.99	9		
Total		144	6,627.1
Wisconsin 1916			
0-.20	45		
.21-.40	61		
.41-.60	87		
.61-.80	31		
.81-.99	8		
Total		232	9,609.5
Wisconsin 1917			
0-.10	43		
.11-.20	50		
.21-.30	58		
.31-.40	42		
.41-.50	71		
.51-.60	15		
.61-.70	13		
.71-.80	22		
.81-.90	19		
.91-.99	2		
Total		335	12,350.0
Oregon '16 & '17			
0-.20	37		
.21-.40	61		
.41-.60	57		
.61-.80	31		
.81-.99	44		
Total		230	11,254.5
Grand Total		1,102	48,445.1

Average per cent. of disability = 44.0.

TABLE E.

DEGREE OF DISABILITY IN PERMANENT PARTIAL, NOT DISMEMBERMENT.
(EXPERIENCE OF TRAVELERS' INSURANCE CO.)

Nature of Injury.	Degree of Disability.		
	25 %.	50 %.	75 %.
Loss of use of			
arm at shoulder	44	32	16
" " elbow	70	38	35
hand	183	107	70
thumb	65	82	19
first finger	66	73	33
second finger	39	49	11
third finger	39	23	8
fourth finger	13	28	5
leg at hip	43	34	25
leg at knee	103	54	32
foot	118	65	44
ear	—	5	—
both ears	1	1	1
one finger and injury to others	—	1	—
thumb and injury to fingers	—	8	—
2 or more fingers	88	51	31
one eye	72	75	83
finger (unknown)	41	22	10
	985	748	423

Average degree of disability 43.5 per cent.