

U. S. DEPARTMENT OF LABOR
JAMES J. DAVIS, Secretary
BUREAU OF LABOR STATISTICS
ETHELBERT STEWART, Commissioner

BULLETIN OF THE UNITED STATES } No. 301
BUREAU OF LABOR STATISTICS }

WORKMEN'S INSURANCE AND COMPENSATION SERIES

**COMPARISON OF WORKMEN'S COMPENSATION
INSURANCE AND ADMINISTRATION**

By CARL HOOKSTADT



APRIL, 1922

WASHINGTON
GOVERNMENT PRINTING OFFICE
1922

CONTENTS.

	Page.
Purpose of the investigation.....	1
Scope and method.....	1, 2
Description and size of funds.....	2, 3
General comparison of State funds with private insurance.....	3-21
Problems peculiar to competitive system.....	4
State's assumption of liability.....	4
Politics.....	5
Inadequate appropriations and salaries.....	5
Cost.....	5-10
Cost to State.....	5-8
Cost to workman.....	8
Cost to employer.....	8-10
Service.....	10-18
Promptness of payments.....	10-13
Adequacy or liberality of payments.....	13-17
Accident prevention.....	18
Security.....	18-20
Stock companies.....	18, 19
Mutual companies.....	19
State funds.....	19, 20
Self-insurers.....	20
Summary conclusions.....	21
Administrative functions, personnel, and expenses of commissions and funds.....	21-26
Functions and work of commissions.....	22, 23
Personnel and expenses.....	23-25
Salaries of commissioners and employees.....	25, 26
Methods of accident reporting and claim procedure.....	26-51
What employers are required to report accidents.....	27
What accidents are required to be reported.....	27-29
What data are required on accident report forms.....	29-33
How soon accidents are reported.....	34-37
What reports are required and from whom.....	37-44
Employer's first report.....	38, 39
Attending physician's first report.....	39
Workman's claim or agreement.....	39-42
Supplemental and final reports and receipts.....	42-44
Numbering, indexing, and filing.....	44-48
Employee's index.....	44, 45
Employer's index.....	45
Numerical index.....	45
Numbering of accidents and claims.....	45-48
Summary conclusion.....	48-51
Solvency of State funds.....	51-56
Classifications.....	52
Rates.....	52, 53
Merit rating.....	53
Reserves and surplus.....	53-55
Claim reserves.....	54, 55
Catastrophe reserves.....	55
Dividends.....	55
Collection of premiums.....	55
Auditing pay rolls.....	56
Expenses, premium income, surplus, and dividends of State funds.....	56

	Page.
Administration of medical service.....	57
Accident and compensation statistics.....	57-64
Colorado.....	59
Indiana.....	60
Washington.....	60, 61
Oregon.....	61, 62
Wisconsin.....	62
Nevada.....	62
Massachusetts.....	62, 63
California.....	63, 64
Self-insurance.....	64, 65
Effect of weekly maximum in reducing compensation benefits.....	66-71
Methods of computing wages in workmen's compensation practice.....	71-88
Computations on full-time basis.....	73-75
Computation of wages at the time of injury.....	75-77
Computations on part-time basis.....	77-79
Seasonal occupations.....	79, 80
Concurrent employments.....	81, 82
Minors and learners.....	83, 84
What is included in the term "wages".....	84-88
Description of claim procedure in each State.....	88-194
Exclusive State funds.....	88-125
British Columbia.....	88-93
Nevada.....	93-95
North Dakota.....	95-97
Ohio.....	97-104
Ontario.....	104-107
Oregon.....	107-113
Washington.....	113-120
West Virginia.....	120-125
Competitive State funds.....	125-152
California.....	125-129
Colorado.....	129-132
Idaho.....	132-135
Maryland.....	135-137
Michigan.....	138-140
Montana.....	140
New York.....	140-146
Pennsylvania.....	146-148
Utah.....	149-152
Industrial commissions.....	152-194
California Industrial Accident Commission.....	152-158
Colorado Industrial Commission.....	158-160
Idaho Industrial Accident Board.....	160-163
Illinois Industrial Commission.....	163, 164
Indiana Industrial Board.....	164-167
Maryland Industrial Accident Commission.....	167-169
Massachusetts Industrial Accident Board.....	169-174
Michigan Industrial Accident Board.....	174-177
Montana Industrial Accident Board.....	177-182
New York Industrial Commission.....	182-186
Pennsylvania Workmen's Compensation Bureau and Board.....	186-190
Utah Industrial Commission.....	190, 191
Wisconsin Industrial Commission.....	191-194

BULLETIN OF THE U. S. BUREAU OF LABOR STATISTICS.

NO. 301

WASHINGTON

APRIL, 1922

COMPARISON OF WORKMEN'S COMPENSATION INSURANCE AND ADMINISTRATION.

PURPOSE OF THE INVESTIGATION.

For the past three or four years the Bureau of Labor Statistics has received numerous requests from State legislators and others for information regarding the relative merits of different types of insurance under workmen's compensation. Heretofore the bureau has been unable to furnish such information. In 1919 the bureau began an investigation of compensation insurance systems, the field work of which was completed in August, 1920. The points upon which information was particularly sought were the relative costs, security, and service of the various types of insurance carriers. The question of costs included both the cost of insurance and the cost of administration. The question of security covered security both to employers and to injured workmen. As regards service, three tests were taken into consideration, viz, (1) promptness of compensation payments, (2) adequacy or liberality of payments, including liberality of interpretation of the laws, and (3) accident-prevention work. In addition, a study was made of the administrative procedure of State industrial commissions and funds, especially as regards methods of accident reporting and claim procedure. A description of the claim procedure methods of each State is given on pages 88 to 194.

SCOPE AND METHOD.

The investigation covered 20 States and 2 Canadian Provinces, as follows:

Exclusive State funds.—British Columbia, Nevada, North Dakota, Ohio, Ontario, Oregon, Washington, West Virginia, and Wyoming.

Competitive State funds.—California, Colorado, Idaho, Maryland, Michigan, Montana, New York, Pennsylvania, and Utah.

States having no State funds.—Illinois, Indiana, Massachusetts, and Wisconsin.

The industrial commission of each of the above States and Provinces was visited. The records and procedure in each State were examined and studied first hand. Particular attention was given to

the following subjects: Accident reporting; claim procedure and method of compensation payments; method of handling permanent partial disabilities; formulation of insurance rates; auditing of pay rolls; computation of reserves; merit rating; and declaration of dividends. A few of the States had made special studies or had tabulated data, and these were utilized to some extent by the bureau in its investigation. The Illinois, Michigan, and Pennsylvania commissions had made studies relative to the promptness with which compensation payments had been made by the different insurance carriers. In New York the Connor investigation¹ furnished pertinent information. Most of the information, however, was obtained directly from the books and records of the commissions, to which access was freely given. The bureau, however, made no actuarial audit with respect to the solvency of the State funds, accepting the financial statements as furnished by the funds or as found in their published reports.

DESCRIPTION AND SIZE OF FUNDS.

State funds are of two general types, exclusive and competitive. Nine exclusive State funds were studied. These vary somewhat among themselves. Ontario, British Columbia, and Washington are of the same type. In these both compensation and insurance are compulsory. No private insurance or self-insurance is permitted. Nevada and Oregon differ somewhat in that compensation is not compulsory but elective. However, if the employers in these States elect compensation, they must insure with the State fund. Neither private companies nor self-insurers are permitted. Ohio and West Virginia permit self-insurers to do business, but private companies are excluded. In the exclusive-fund States the funds are administered by the industrial accident boards or commissions as a part of the administration of the compensation act.

Nine competitive funds were studied. Of these, six are under the supervision and jurisdiction of industrial commissions which administer the funds. In some of the competitive States—for example, in Montana—the fund is an integral part of the commission; in other States the fund is practically independent, as it is in California. In States in the latter class the commission formulates the general policies of the fund and then appoints the manager and grants him practically complete control of the fund; in the former the commission retains greater administrative control over the fund. Two State funds (Idaho and Michigan) are under the jurisdiction of insurance departments. The Pennsylvania State fund is under a specially created board, which appoints the manager and has charge of the fund.

During the year 1919 the stock companies in general wrote \$91,000,000 in premiums,² the mutual companies \$27,000,000,³ and the State funds \$33,000,000. The stock companies therefore wrote 60 per cent of the total workmen's compensation business in the United States,

¹ Report of investigation by J. F. Connor as commissioner under section 8 of the executive law in relation to the management and affairs of the State industrial commission, submitted to the governor, Nov. 17, 1919.

² Data furnished by Mr. A. W. Whitney, general manager of the National Workmen's Compensation Service Bureau. This amount does not include the premiums written by several minor stock companies.

³ Data furnished by Mr. E. S. Cogswell, manager, National Association of Mutual Casualty Companies.

the mutuals, 18 per cent, and the State funds, taking them as a whole, competitive and exclusive, 22 per cent. On the basis of the stock company rates the premium income of the State funds would be greater than the amount stated, because their premium rates are usually lower than those of stock companies.

The amount of business written by the competitive State fund varies in the different States. It ranged in 1919 from 4 per cent in Michigan to about 49 per cent in Montana. The average for all the competitive State funds was 13.2 per cent, i. e., they wrote 13.2 per cent of the insurance business in the competitive States. California wrote about 36 per cent, while Pennsylvania and New York, two of the three largest competitive funds, wrote about 12 per cent each. These figures are only approximate, but are sufficiently accurate for present purposes of comparison.⁴

Several of the State funds have considerably increased their premium income since their establishment. The California fund has grown very much and so has the Montana fund. The New York and Pennsylvania funds have increased somewhat, whereas some of the others have remained about stationary. The fact that some of these write very little of the compensation business is due to various causes. One reason is that they have not sufficient employees to go out and get business. Among some State funds it is the policy of those in charge not to solicit business, but simply to take whatever comes to them. They would have the State fund function as a regulator of insurance rates.

GENERAL COMPARISON OF STATE FUNDS WITH PRIVATE INSURANCE.

Before taking up a detailed comparison of the different insurance systems as to cost, service, and security it may be advisable to make a general comparison between State funds and private carriers. But in order that the comparisons between different State funds and between different types of insurance may be accurate, it is necessary to take into account several factors. Among the more important of these are the following: Variations in the provisions in the various laws, methods of procedure, methods of wage payments in the different localities, the size or area of the State, and the nature of the industries.

Moreover, it is practically impossible to compare State funds as a whole with stock companies or mutual companies or self-insurers as a whole, for the reason that there are such great variations within each type of insurance. Some of the State funds are more efficiently managed and give better service than other types of insurance carrier. On the other hand, some of the State funds are badly managed and give poorer service than other types of insurance. Similar variations, however, exist within the private companies. Some stock companies perform very good service while others do not. The same may be said of the mutuals and the self-insurers. There are self-insurers who pay full wages, even giving more than the law specifies, whereas others adopt a technical, niggardly, and dilatory attitude. Consequently, it is difficult to compare one type with another. How-

⁴ For the latest available data as regards premiums, surplus, and expenses of State funds, see Table 16, p. 56.

ever, taking each type as a whole, or the the best example as representative of the type, the records show that the State funds (1) do business 25 to 30 per cent cheaper than stock companies; (2) are financially sound and have adequate reserves and surplus; (3) pay compensation as promptly as private carriers or self-insurers; (4) are more liberal in settling claims and appeal fewer cases to the commissions or courts; and (5) perform little safety and inspection work in comparison with private companies.

PROBLEMS PECULIAR TO COMPETITIVE SYSTEM.

Certain problems confront commissions in competitive insurance States which do not exist under an exclusive State fund system. In the last analysis a comparison of different types of insurance carriers resolves itself into a comparison of exclusive with competitive systems. From an administrative standpoint a competitive State fund is not greatly unlike a private insurance company.

Under an exclusive fund system the commission ascertains the facts from reports and investigations and then awards compensation. In a competitive State the commission, instead of administering the insurance, supervises, follows up, and checks up the insurance carriers or self-insurers who are required to make the payments.

Under the exclusive State fund rates can be increased or decreased to meet contingencies as they arise and no one is seriously affected. As an illustration, Oregon in 1920 increased its benefits 30 per cent. This was a flat increase, retroactive, and applied to all persons receiving compensation benefits at the time. The additional cost was met out of the surplus of the fund. But had there been no surplus the commission might have increased its rates. This could not have been done under a competitive system, because the premiums were collected and contracts entered into on the basis of the former benefits.

Again, under the competitive plan there exists a dual system of administration. In an exclusive-fund State, accidents are reported to the commission only; under a competitive system, accidents are reported by the employer to the insurance company and also to the commission. Furthermore, under the latter system both the insurance company and the commission must receive and investigate compensation claims, which results in unnecessary duplication of effort. These difficulties of administration do not exist under an exclusive State fund system.

STATE'S ASSUMPTION OF LIABILITY.

Another fact worthy of note is that in some of the exclusive-fund States, especially the Canadian Provinces and Washington, the State assumes responsibility for compensation payments in case of accident. If an accident occurs within the industry covered by the law, the State pays. It obtains its premium later, or in advance. The workman does not suffer because the employer has not paid his premium. Of course, in most States, if the employer has not insured, the employees can bring suit for damages, but in many cases a judgment is valueless.

POLITICS.

One of the factors which militates against efficiency of administration in industrial commissions is the system of partisan political appointments. The personnel of many commissions is constantly changing with the change of political administration. In one State, for example, there have been 17 commissioners since the creation of the commission in 1911. This continual change in personnel prevents a continuity of policy. Commissioners frequently hesitate to undertake important and constructive policies when their probable tenure of office is only three or four years. Furthermore, this change in personnel affects not merely the commissioners themselves but the entire staff of the commission.

INADEQUATE APPROPRIATIONS AND SALARIES.

Probably the greatest handicap suffered by State funds and industrial commissions is inadequate appropriations and salaries. An industrial commission can not perform its functions properly nor furnish adequate service if it does not have sufficient appropriation to carry on its work and if the salaries provided are so low that high-grade employees can not be retained. In fact most of the State commissions serve as recruiting ground for private employers and especially the private insurance companies. Great credit is due those employees who, because of their interest in the successful and efficient administration of the fund or commission, remain in the public service although able to command double their salary in private employment.⁵

COST.

As already noted, State funds as well as private insurance companies vary greatly among themselves as regards efficiency in management. However, certain legitimate comparisons can be made between the two types of insurance. The question of cost will be considered first—cost to the State, to the employee, and to the employer. In order to obtain accurate comparisons, however, it is necessary to distinguish between the accident cost, on the one hand, and the compensation cost of those accidents, on the other. One must also distinguish between cost of administration, cost of insurance, and cost of compensation benefits.

COST TO STATE.

The total cost to the State depends on two factors—the amount of the benefits and the cost of administration, i. e., how much it costs to put those benefits into effect. Ordinarily, when speaking of cost to the State, administrative cost is meant. In comparing the administrative cost of one State with that of another, one must, of course, take into account the number and variety of functions performed, since some State commissions are engaged in more activities than others. It is also necessary to have all the items of expense included. For example, in some States the reported administrative expenses include rent; in others, they do not. Then, too, a valid comparison of the total administrative expense of one State with

⁵ Table 9 (p. 25) shows the salaries paid various officers and employees of State commissions and funds.

that of another must take into account the administrative expenses of insurance carriers, including the State funds. Suppose, for illustration, one wishes to compare the administrative cost of the exclusive State funds of Ohio, Ontario, or Oregon with the administrative cost of competitive systems of, say, Pennsylvania or California. In the first group of States the total cost will be shown by the expenses of the commission; but in the second group the total expenses of administering the compensation act will be the administrative expenses of the commission, plus the administrative expenses of the State fund, plus the expenses of the insurance companies, to say nothing of the expenses of the self-insurers. The difference between the two totals represents the difference in the total administrative costs under exclusive and competitive systems.

The difference in the cost of administering a compensation act under the two systems is brought out in the following table, which shows for specified States the administrative expenses of the several types of insurance. The purpose of column 2, showing approximately the number of employees subject to the compensation acts, is to indicate the volume of business performed in each State. Column 3 shows the actual expenses of the commission for administering the compensation law; column 4 shows the actual administrative expenses of the State funds; column 5 shows approximately the administrative cost to the stock insurance companies. The stock company figures were obtained by applying an average expense ratio of 37½ per cent to the earned premiums as reported by the National Workmen's Compensation Service Bureau^a for the year 1919. Although the stock expense ratio varies in the several States, ranging from 35 to 40 per cent, the application of a flat 37½ per cent will give results sufficiently accurate for the present purpose. In fact, for the total expenses of all private insurance carriers these figures are an understatement, since they do not include the expenses of mutual and reciprocal companies, which were not available, nor do they include the expenses incurred by self-insured employers. The administrative expenses for the commissions and State funds are all for the year 1919 except for the Ohio and Pennsylvania commissions, which are for 1918.

TABLE 1.—EXPENSES OF COMPENSATION ADMINISTRATION IN SPECIFIED STATES.¹

State.	Estimated number of employees subject to act.	Commission. ²	Fund. ³	Stock companies. ⁴	Total.
1	2	3	4	5	6
Exclusive-fund States:					
Washington.....	191,458	\$172,816.93	.....	.....	\$172,816.93
Oregon.....	95,910	138,902.31	.....	.....	138,902.31
Nevada.....	24,746	32,778.66	.....	.....	32,778.66
Ohio.....	1,008,813	279,596.00	.....	.....	279,596.00
West Virginia.....	212,812	80,422.64	.....	.....	80,422.64
British Columbia.....	110,000	70,705.53	.....	.....	70,705.53
Ontario.....	500,000	167,844.75	.....	.....	167,844.75

¹ Administrative expense figures for the latest periods available are found in Table 7, p. 24.

² Figures do not include expenditures for accident prevention, except New York, California, and Pennsylvania State funds.

³ Figures include expenditures for accident prevention and taxes. Inspection expenses about 2 per cent of earned premiums and taxes about 3 per cent.

⁴ The name of this organization has recently been changed to the "National Bureau of Casualty and Safety Underwriters."

TABLE 1.—EXPENSES OF COMPENSATION ADMINISTRATION IN SPECIFIED STATES—
Concluded.

State.	Estimated number of employees subject to act.	Commission.	Fund.	Stock com- panies.	Total.
1	2	3	4	5	6
Competitive-fund States:					
California.....	611,941	\$175,270.10	\$319,125.11	\$2,088,426.43	\$2,582,821.64
Idaho.....	50,119	15,542.06	28,714.92	108,522.50	152,779.48
Montana.....	56,826	4 27,000.00		69,855.25	96,855.25
Colorado.....	137,157	4 56,598.19		280,493.09	337,091.28
Michigan.....	597,585	61,550.94	29,936.60	1,246,371.32	1,337,858.86
Pennsylvania.....	2,149,867	239,587.95	277,984.00	4,384,702.17	4,902,274.12
New York.....	2,503,020	422,447.07	213,800.40	8,750,610.47	9,386,857.94
Maryland.....	188,433	4 63,914.99		753,168.21	817,083.20
Private-insurance States:					
Massachusetts.....	1,109,134	159,854.95		2,642,602.31	2,802,457.26
Indiana.....	502,729	27,928.62		1,166,299.23	1,194,227.85
Illinois.....	871,890	4 119,296.85		2,757,497.28	2,876,794.13
Wisconsin.....	405,009	36,855.11		880,825.02	917,680.13

⁴ Includes expenses of State fund.⁵ Includes expenses (approximately \$10,000) for administering the conciliation and arbitration act.

A glance at the foregoing table shows the enormous difference in administrative costs between the exclusive and competitive insurance systems. The former are stated in thousands of dollars, whereas the latter in some cases run into millions. For example, compare the administrative expenses in the exclusive-fund State of Ontario (\$168,000) with those in the competitive-insurance State of California (\$2,582,000), or those in the exclusive-fund State of Ohio (\$279,000) with those in the competitive-insurance State of Pennsylvania (\$4,902,000) and in the private-insurance State of Illinois (\$2,876,000).

A comparison of the number of State employees required to administer the compensation act under the different insurance systems may also be of interest. The following tabular statement shows the number of employees in specified exclusive-fund States, competitive-fund States, and States having no State funds. The figures are for the year 1920, except for Pennsylvania (1921) and Illinois (1919).

TABLE 2.—NUMBER OF STATE EMPLOYEES ENGAGED IN ADMINISTRATION OF COM-
PENSATION ACTS IN SPECIFIED STATES.

State.	Commis- sion em- ployees.	Fund em- ployees.	Total.
Exclusive-fund States:			
Ohio.....	214		214
Oregon.....	119		119
Washington.....	89		89
West Virginia.....	42		42
Competitive-fund States:			
California.....	67	237	304
Pennsylvania.....	159	85	244
Michigan.....	28	16	44
New York.....	263	173	436
Private-insurance States:			
Illinois.....	57		57
Massachusetts.....	83		83
Wisconsin.....	22		22

It will be seen that the number of employees in States having exclusive State funds is relatively smaller than in the competitive-fund States. This is the logical thing to expect, because the former States do not have a dual system of administration. Furthermore, it requires nearly as many employees to administer the compensation act in States having no State funds whatever, if the work is to be done adequately, as it does in the exclusive-fund States.

COST TO WORKMAN.

In considering the question of cost to the injured workman, distinction should be made between the *accident* cost and the *compensation* cost. By accident cost is meant the wage loss resulting from the accident. How much of this accident cost does the employee bear and how much does the industry or the employer bear? Most of the laws provide that the compensation shall equal a certain percentage of the employee's wage received at the time of the injury. This percentage ranges from 50 to 66½. But because of the operation of the weekly maximum and other limitations the injured workman, instead of receiving 50 or 66½ per cent of his wages, receives actually only 20 to 35 per cent.*

As regards compensation cost as distinguished from accident cost, Oregon is the only State in which the workman is required to pay a portion of the compensation. In this State he is required by law to pay 1 cent for each working day, which amounts to about 9 or 10 per cent of the total compensation costs. In all of the other States the employer at least pays the compensation provided in the law. However, in many of the Western States the employer has been able under the contract hospital system to place a large part of his compensation cost upon the workman. Under this contract system the employer enters into an agreement with a contract hospital whereby the latter is to take care of his accident cases. The workman is usually charged a dollar a month or more, which is deducted from his wages and turned over to the hospital. This dollar a month frequently pays for the entire cost of the medical service. Thus the employer is relieved of a part of his burden, which is placed upon the workman. Another burden which the employee must bear is the payment of attorney's fees.

COST TO EMPLOYER.

A comparison of compensation costs to the employers under different insurance systems and in different jurisdictions is difficult of determination. There are two ways of approaching the problem: (1) By comparing insurance rates and (2) by comparing expense ratios. A comparison of rates is practically impossible because of the difficulties involved. There are too many complicating factors which affect the comparability of the result.

First. There is the difference in benefits. No reliable factor has yet been produced which will measure accurately the difference in benefits.

Second. Variations in classifications. One may say that a coal mine is a coal mine whether located in Pennsylvania, Ohio, or

* A detailed discussion of this subject is given on pp. 66 to 71.

Washington. But a comparison of the manuals in the various States will disclose the fact that even a coal-mine classification does not mean the same thing in every State. In addition, the problem of interpretation and application of the classification must still be dealt with.

Third. Identical industries or classifications vary considerably as to hazard in different States.

Fourth. Because of the operation of merit-rating schemes in vogue in most States the manual rates are not the rates actually charged.

Fifth. Even if the foregoing difficulties have been solved and comparable rates obtained, one does not know whether the insurance companies are actually writing business at those rates unless the State keeps strict supervision over rates. In half of the States no supervision is exercised.

Sixth. The policy of State funds and other insurance carriers differs as to dividends and reserves. Among some it is the practice to set the rates high enough to allow the return of dividends and to build up a comfortable reserve and surplus. Among others the rates are barely adequate to cover the cost of the current accidents.

Therefore, a comparison of manual rates in one State with the manual rates in another State does not get one very far.

The other method of comparing costs to employers is by means of the expense ratios of the insurance carriers. Final compensation insurance rates are the product of two factors: (1) The pure premium factor, which represents the actual loss cost, and (2) the expense loading factor, which represents the carrier's administrative expense for putting the benefits into effect. Here one can arrive at certain definite facts. The pure premium factor, i. e., the actual cost of accidents per \$100 of pay roll for each industrial classification, is, of course, the same for all carriers for rate-making purposes. The expense factor, however, varies with the type of insurance and reflects the difference in cost of insurance administration. The difference in the expense ratios of stock companies, mutuals, and State funds, therefore, represents the relative cost of compensation insurance to the employer under the different insurance systems. For the employer a comparison of costs under a stock company, a mutual, or a State fund becomes then a simple mathematical calculation.

The expense ratios of stock companies vary from 35 to 40 per cent, the average being about 38; i. e., for every dollar of premiums collected by stock insurance companies 38 cents goes for expenses and profits. The expense ratio of the mutuals ranges from 15 to 20 per cent; that of the competitive funds averages about 10.6 per cent, ranging from 6 and 7 to about 15 per cent; that of the exclusive State funds ranges from 3 per cent—less than 3 in Ohio—to about 7 or 8 per cent. Using one figure only, the average expense ratios are as follows: Stock companies, 38 per cent; mutual companies, 20 per cent; competitive State funds, 10.6 per cent; and exclusive State funds, 4 per cent.^a By applying these percentages to the premium income a comparison of the cost to the employer is obtained. Such a computation shows that had every compensation State possessed an exclusive State fund and had all employers carrying compensation insurance insured therein, it would have saved these employers

^a For actual expense ratios see Table 16, p. 56.

in the year 1919 at least \$30,000,000. In other words, it costs the insured employers of the United States an extra \$30,000,000 to insure in stock and mutual companies. These figures are obtained simply by applying the difference in expense ratios to the total premium income, as shown on page 2. Of course, it has been assumed that each type of insurance has furnished the same kind of service.

SERVICE.

A second factor in the comparison of compensation insurance systems is service. However, it is difficult to measure service because it does not easily lend itself to statistical proof. Three tests, however, may be applied: (1) Promptness of payment; (2) adequacy or liberality of payments, including liberality in interpreting the laws; and (3) accident prevention.

PROMPTNESS OF PAYMENTS.

As regards promptness of payment the bureau has been able to obtain definite statistical data based upon actual cases taken from the files of various industrial commissions. These cases covered the years 1917, 1918, and 1919, being distributed as evenly as possible among the three years. The information recorded included date of the accident, date of receipt of accident report by commission or fund, date of doctor's report and workman's claim, and date such reports were received, date of agreement or award, and date of first payment. The results were tabulated and comparisons made by State and type of insurance. In some of the States the bureau was unable to obtain the date of first payment because the commissions kept no record thereof. In such States the date of the compensation agreement or the date of the commission's award was obtained, if possible. However, in most States the date of first payment was available.

In order that accurate comparisons may be drawn from the data it will be necessary to take certain factors into consideration.

(1) The length of the waiting period must be taken into account. No payment is due until one week after the expiration of the waiting period. It is not fair, however, to subtract the entire waiting period from the average time between the date of accident and date of first payment, as shown in the subsequent tables. No payments can be made until the necessary reports of the accident have been filed with the commission or insurance carrier, and this takes a certain length of time. In fact, a study of the promptness with which accidents are reported in the several States shows that the length of the waiting period seems to be a negligible factor. For example, in Massachusetts, which has a 10-day period, accidents are reported more promptly than in any other State.⁷

(2) A second factor to be taken into account is the practice in the several States as regards frequency of wage payments. In the Far West it is customary among many employers to pay monthly; in the Middle West, biweekly; and in the East, weekly. Since compensation is supposed to be in lieu of wages, the first payment ordinarily is not made until the next regular pay day. Thus the frequency of wage payments will, to a certain extent, affect the promptness of compensation payments as shown in the table.

⁷ For a discussion of the problem of promptness in accident reporting see pp. 34 to 37.

(3) A third factor is the size or area of the States compared. In the East the States are small, the population compact, and communication easy and rapid; whereas in the Far West the States are large and the population sparse. Other things being equal, one would expect more prompt payments in Massachusetts or Ohio than in California, Nevada, or British Columbia.

(4) A fourth factor to be considered is the nature of the industry. In the East, where manufacturing predominates, the industries are usually large, compact, and within easy reach of postal and telephone communication. In the Far West, again, many of the industries, such as lumbering or mining, are located in out-of-the-way places where communication is difficult.

The number of cases upon which the averages were based should also be taken into consideration. In some of the States 1,000 or more were examined, while in others the number was less than 100. The number of cases taken depended upon the accessibility of the records and also upon the type of State. In the competitive-fund States a large number of cases was necessary in order to compare the different types of insurance in the State. In the exclusive-fund States such comparison was not necessary and consequently the number of cases was smaller. The averages of States in which the number of cases is under 100 should be used cautiously; deductions drawn therefrom are by no means conclusive, but are indicative in the light of other information.

Bearing in mind the foregoing factors, let us see how the several insurance systems in various States compare.

Table 3 shows the promptness of compensation payments by different insurance carriers in certain States arranged in ascending order. This table is a summary of a detailed table (facing this page) and includes only those States in which data as to first payments were obtainable, whereas the detailed table contains also the States in which data regarding promptness of awards and agreements alone were available. Column 2 shows the number of cases examined. Column 3 shows the waiting period for each State as of the year 1919. Column 4 shows the average (median) number of days elapsing between the date of accident and date of first payment.^a That is, in one-half of the cases the first payment was made before the number of days specified and in the other half of the cases the first payment was made after that date. Columns 5 and 6 show the percentage of cases in which the first payment was made within 4 weeks and 7 weeks, respectively, from the date of the accident. Columns 7 and 8 show the percentage of cases in which no payment had been made at the end of 11 and 13 weeks, respectively, after the accident. In the case of Illinois and Michigan, the commissions had each made an independent investigation, and the results of these investigations are incorporated in the table. In all other cases the figures are based upon records found in the files of the commissions.

^a For intervals between date of receipts of reports and date of first payment see Table 15, p. 50.

12 COMPARISON OF WORKMEN'S COMPENSATION INSURANCE.

TABLE 3.—PROMPTNESS OF COMPENSATION PAYMENTS BY DIFFERENT INSURANCE CARRIERS IN CERTAIN STATES, ARRANGED IN ASCENDING ORDER.

State and insurance carrier.	Number of cases.	Waiting period (days).	Average interval (median) between date of accident and date of first payment (days).	Per cent of cases in which first payment was made within—		Per cent of cases in which no payments had been made at end of—	
				4 weeks after accident.	7 weeks after accident.	11 weeks after accident.	13 weeks after accident.
1	2	3	4	5	6	7	8
California (State fund).....	404	7	26	58.1	83.8	6.3	4.1
Idaho (self-insurers).....	190	7	26	54.2	81.0	6.7	5.7
Oregon (State fund).....	403	0	28	54.1	87.1	2.7	1.7
Michigan (stock companies) ¹	187	7	34	40.6	78.6	7.4	5.8
Michigan (self-insurers) ¹	153	7	34	30.1	67.3	11.8	7.2
Maryland (State fund).....	172	14	35	38.3	69.7	13.8	9.6
Indiana (insurance companies).....	90	7	35	43.3	68.7	13.2	8.8
Nevada (State fund).....	204	7	36	29.9	77.5	4.4	3.4
Utah (State fund).....	49	3	38	36.8	75.5	12.2	10.2
British Columbia (State fund).....	118	3	41	15.2	76.2	8.4	5.1
Idaho (insurance companies).....	446	7	41	28.4	62.7	17.5	12.6
Illinois (stock companies) ²	704	14	44	13.3	60.1	11.8	8.4
Montana (self-insurers).....	355	14	46	7.9	61.2	10.6	8.2
Montana (State fund).....	30	7	48	13.3	53.2	33.4	33.4
Washington (State fund).....	308	7	49	9.1	51.3	17.4	12.9
Colorado (insurance companies).....	82	10	49	12.2	51.2	23.2	14.6
Illinois (mutual companies) ².....	.....	7	51	.....	.....	.....	.....
Illinois (interinsurers) ².....	.....	7	52	.....	.....	.....	.....
Colorado (self-insurers).....	41	10	54	9.8	44.2	24.4	19.5
Illinois (self-insurers) ².....	.....	7	54	.....	.....	.....	.....
Colorado (State fund).....	21	10	54	19.1	42.9	19.2	9.6
Ohio (State fund).....	1,000	7	55	8.1	44.7	25.7	17.8
West Virginia (State fund).....	184	7	59	7.6	35.8	32.6	21.1
Montana (stock companies).....	207	14	65	6.7	31.0	36.2	26.1
Idaho (State fund).....	176	7	80	4.5	24.9	50.4	38.0
Michigan (State fund) ¹	16	7	84	0.0	18.7	56.2	50.0
Wyoming ³	100	10	85	0.0	16.0	51.0	42.0

¹ Computation based upon investigation by Michigan Industrial Accident Board.

² Arithmetic average. Includes all cases for 1919. Computations made by Illinois Industrial Commission.

³ The State treasurer pays the awards when and as determined by the district courts.

An examination of the above table shows that as regards promptness in paying compensation the records of the State funds vary widely. Second, it also shows great variations in each type of insurance carrier. Third, it shows that self-insurers, whom one would naturally expect to pay promptly, are just as slow in paying compensation as the casualty companies or State funds. Fourth, it shows long delay on the part of all carriers. Fifth, it furnishes a comparison as to whether private insurance companies are more prompt in making compensation payments than the State funds.

Of the six exclusive-fund States, three (Oregon, Nevada, and British Columbia) have a better record as regards promptness of payment than the average private insurance company. In the other three States (Ohio, Washington, and West Virginia) the reverse is true. In most of the competitive-fund States payments are made and claims handled more promptly by the State fund than by other insurance carriers. Moreover, it should be noted that the two competitive funds having the poorest records are not under the jurisdic-

tion of compensation commissions, but are under the supervision of insurance departments.

It is of interest to bring into comparison the State funds and private carriers having the most favorable records as to promptness of compensation payments. For this purpose the competitive fund of California, the exclusive State fund of Oregon, and the Liberty Mutual Co. of Massachusetts are considered. It should be borne in mind that the area of Massachusetts is small and the industries compact. Both California and Oregon are large States, and in each State lumbering is one of the principal industries. It takes a longer time to obtain reports and to make payments. The percentage of cases in which the first payment had not been made within 6 weeks⁹ are as follows: Liberty Mutual, 20 per cent; Oregon State fund, 18.9 per cent; California State fund, 22.1 per cent. Oregon, in spite of its large area, had a better record and California almost as good as the Liberty Mutual. The percentages of cases in which the first payment had not been made within 10 weeks are as follows: The Liberty Mutual, 6.3 per cent; the Oregon fund, 3.9 per cent; the California fund, 6.5 per cent. Again Oregon has a much better record and California equally as good as the Liberty.

Long delay in making payments is due, at least so far as the State funds are concerned, to a number of causes. In the first place employers and physicians are not always prompt in reporting accidents. It is more difficult still to get the workmen to report the cases. In fact, much of the delay is the direct result of the failure of the workmen to make claims. Then, too, the commissions must partially share the blame because they have inadequate follow-up methods or because their procedure is too complicated. Furthermore, several of the funds make no attempt to pay compensation promptly. Many of the commissions and funds are also handicapped in that they have an insufficient force to handle the claims properly and to make the necessary investigations.¹⁰

ADEQUACY OR LIBERALITY OF PAYMENTS.

A second test of service is the adequacy or liberality of compensation payments, including liberality of interpretation of the acts. Are the benefits as provided in the laws actually being paid or is there a tendency among employers and insurance carriers to fight compensation claims, to resort to technicalities, to make settlements for less than the law provides, to make understatements as to the severity of injuries, or to make no offer of payment, hoping the injured workman will neglect to press his claim? These questions do not readily lend themselves to statistical proof. The most reliable method of approaching the problem would be to make a study of a certain number of actual cases in each State and ascertain just what was done. Because of limited means such a study was not made by the bureau. Several States, however, have made such investigations. Among these are the Connor investigation in New York (already referred to) and a study of insurance companies made by the Industrial Commission of Illinois.

⁹ In case of the Liberty Mutual 40 days should be substituted for 6 weeks.

¹⁰ For a discussion of promptness in accident reporting and methods of claim procedure see pp. 26 to 51.

First as to State funds: In most of the State-fund States it is the policy of the commission to be liberal in making awards to claimants. Where the State fund is under the jurisdiction and supervision of the industrial commission, the latter seldom allows a State fund to appeal from the decision of the commission to the courts, whereas self-insurers and private insurance companies of course have such right of appeal. Again, the commissions are inclined to disregard legal technicalities and even to resort to extra-legal means to award compensation in meritorious cases—practices which are estopped when the insurance carrier is a party in the case.

Tables 4 and 5, compiled from the latest annual reports of the California Industrial Accident Commission, show the practices of the several types of insurance as regards appealing cases and liberality of payments. Table 4 shows that the State fund appeals fewer cases to the commission than other insurance carriers, having a frequency rate of less than one-half of the others. Table 5 shows the average compensation per case for each type of insurance and reflects the liberality of the insurer in the matter of claim payments.

TABLE 4.—CASES APPEALED BY INSURANCE CARRIERS TO THE CALIFORNIA INDUSTRIAL ACCIDENT COMMISSION, JULY 1, 1917, TO DEC. 31, 1918, BY TYPE OF INSURER.

Type of insurer.	Cases appealed.		Premium income, 1918.		Number of appeals per \$1,000,000 of premium.
	Number.	Per cent each type is of total.	Amount.	Per cent of total written by each type.	
State fund	213	14	\$2,450,086	29	87
All other carriers.....	1,277	86	6,110,819	71	209
Total.....	1,490	100	8,560,905	100	174

TABLE 5.—NUMBER OF COMPENSABLE INJURIES AND AVERAGE INCURRED COMPENSATION COST IN CALIFORNIA FOR THE YEAR 1919, BY TYPE OF INSURER AND DEGREE OF DISABILITY.

Type of insurer.	Number of compensable injuries.					Average incurred compensation per case.				
	Total.	Deaths.	Permanent disabilities.	Indeterminate disabilities.	Temporary disabilities.	Total.	Deaths.	Permanent disabilities.	Indeterminate disabilities.	Temporary disabilities.
State fund.....	5,756	93	401	275	4,987	\$253.8	\$2,603	\$1,015	\$1,382	\$59.0
Private carriers.....	12,102	158	737	266	10,941	188.3	2,273	930	1,904	65.1
Self-insurers.....	7,896	189	576	154	6,977	238.9	2,551	1,121	1,979	66.6
Total.....	25,754	440	1,714	695	22,905	218.4	2,462	1,014	1,912	64.2

Not all of the State funds, however, have adopted the policy of liberal interpretation. In Washington the commission in rendering decisions against the workman has been repeatedly overruled by the courts. Moreover, in this State the procedure relative to claim payments is so hedged about with formalities that the injured workmen suffer as a consequence. In West Virginia, of 183 cases selected at random 19 per cent received only the weekly minimum of \$5, 28

per cent received less than \$7, 40 per cent received less than \$9, and only 32 per cent received the maximum of \$12. Most of these cases represented coal miners and were for the year 1919. These low weekly compensation amounts were due to two causes: (1) The interpretation the commissioner has placed upon the weekly wage provision of the law, and (2) the fact that in many cases no thorough attempt was made to obtain the actual wages of the worker. The commissioner determines the weekly wages by dividing the actual earnings for stated periods of 2, 4, 6, or 12 months by the number of weeks actually worked in those periods. For example, if an employee worked only five days in a two months' period his earnings for these five days would be considered his earnings for two months. Only wages earned from employers in the same or similar industries are taken into account. The commissioner requests the last employer to furnish the workman's wages from other employers, stating in his form request that unless such wage data are received the workman will be given the minimum compensation. In Michigan the State fund is under the supervision of the insurance department and of a board of directors representing the policyholders of the fund. The fund is exceedingly slow in making compensation payments.

As to private insurance carriers: Two important investigations—one in New York and one in Illinois—have brought out certain facts regarding the practices of insurance companies in these States. In New York, at the request of the governor, Mr. J. F. Connor in 1919 made an exhaustive investigation into the management and affairs of the New York Industrial Commission. This investigation made public several highly significant facts. Among the most important of these was the large number of underpayments of compensation claims on the part of the employers and insurance carriers, particularly self-insurers and stock companies. Of 1,000 unselected cases of direct settlements 114 were found to have been underpaid. This underpayment amounted to \$52,279.84, or \$459 per case. The total underpayments on the basis of the 1,000 cases would amount to \$1,400,000 annually. An analysis of the 114 cases shows that the private stock companies and the self-insured employers were especially guilty of this "short-changing" practice. The following table shows the average amount originally paid by direct settlement in New York and the additional amount awarded after investigation and rehearing, classified by type of insurance:

TABLE 6.—AVERAGE AMOUNT ORIGINALLY PAID BY DIRECT SETTLEMENT IN 114 COMPENSATION CASES IN NEW YORK AND AVERAGE ADDITIONAL COMPENSATION AWARDED ON REHEARING.

Type of insurance.	Number of underpaid cases.	Average amount originally paid by direct settlement.	Average additional compensation awarded on rehearing.
Stock insurance companies.....	79	\$114	\$383
Mutual insurance companies.....	6	29	61
Self-insurers.....	29	157	747
Total.....	114	120	459

The Illinois Industrial Commission has legal authority to examine into the operation of casualty insurance companies doing business in the State. Under this authority the commission has investigated six companies. Of these, four companies were found guilty of inefficient and culpable practices. One of these companies was a reciprocal, one was a mutual, and two were stock companies. The following is a summary of the reports of the commission's investigator. Permission to make use of these reports, which are in typewritten form, was granted to the bureau by the industrial commission.

Reciprocal company.—The commission found that the total working staff of one reciprocal company consisted of an attorney in fact and one part-time female employee. The books had not been posted for six months. The company had a deficit of \$19,578. Lump-sum settlements had been made without the approval of the industrial commission. The rates charged were too low for safety. No accident-prevention work had been done. Of 27 unpaid claims, 12 were overdue three months and some six or eight months. The investigator found 110 cases of underpayment, the maximum underpayment being \$102.50. One hundred and eighty-one cases needed investigation; most of these were either permanent partial disability or indeterminate temporary disability cases. Nothing had been paid in most of these 181 cases.

Stock Company A.—After examining into the conditions of this company the investigator reported to the commission as follows:

I find that where compensation has been paid injured employees there has been no picayunish shaving of the amount provided by the workmen's compensation act, but there have been numerous cases where compensation was due and not paid. * * * You will note in most of them a disposition not to play fair with the injured employee and to take advantage of technicalities and avoid payment on the flimsiest of excuses.

In justice to the present claim manager it should be stated that since July 1, when he assumed charge of claim settlements, there has been a decided improvement in the handling of these matters, but his predecessor seemed to think that it was all right to avoid paying compensation if he could "get away with it." The home office of the company was aware of this state of affairs and in some cases complimented him for his ingenuity in avoiding payment.

In several cases settlement contracts have been drawn up and signed by the injured employees and payment made in a lump sum without any order from the commission and without filing the settlement contract with this office. The usual excuse given in these cases to the home office was that the local claim manager knew that the commission would not approve such a settlement. The home office acquiesced in the handling of such cases, and not once did they advise the claim agent that such a procedure was wrong, both from the legal and moral viewpoint.

The following cases were taken from the investigator's report as exemplifying the practice of this company as regards its settlement of claims:

Case No. 1. A boy had lost four fingers by amputation. "The only reason given for not paying compensation was that no written claim was made within six months."

Case No. 2. "Della H—— was employed by the D—— Lunch Co. Dr. W——, in his report to the insurance company, states that this employee has lost the use of the first phalange and offers the gratuitous advice that after she goes back to work she would forget all about the compensation for loss of use, and, further, he believed that the industrial commission would undoubtedly award her for such loss of use if the case was brought before it." Therefore nothing was paid her except for temporary total disability.

Case No. 3. The claim agent of the insurance company had required the injured employee to sign a receipt for \$120 but paid him only \$100, "and advised the home office that he saved the expense of an arbitration and in addition \$20 by not going before the commission with this settlement."

Stock Company B.—With respect to this company the commission's investigator reports that the local adjuster was overzealous to serve the company's interests. The investigator discovered 64 cases of underpayment, the maximum underpayment being \$330. The insurance company had not been reporting its accidents or filing compensation receipts. The following two cases were taken from the investigator's report:

Case No. 1. An injured employee had lost an eye on which a cataract had formed. The local adjuster wrote to the home office as follows: "I will endeavor to dispose of it in the best manner possible without letting it go to the industrial board if we can arrange to keep it from doing so." The home office replied as follows: "I note that the injury probably had a small percentage of vision before this accident. This may be a dangerous case to permit to go to the board."

Case No. 2. The following letter was sent by the adjuster to the home office: "For your information would state that this injured did not return to work for the assured, and we are not tracing him up to see if he is working at the present time, as we do not wish to stir up a claim."

Mutual company.—In its investigation of one mutual company the commission reports that said company was unduly technical in the settlement of claims, and furthermore that the company sought the assistance of its assured employers in hushing up cases. Average wages were found to be incorrectly determined. There were found 17 cases of underpayment, the maximum underpayment being \$21. Twenty-six cases were questionable and needed investigation. In many of these 26 cases the company denied liability. In one case involving concussion of the brain the insurance company doctor wrote to the company as follows: "I would again suggest that if it were possible for B— & Co. to discharge him after he had worked awhile I am sure it would be advisable."

Regarding conditions in other States, the chairman of one of the industrial commissions stated that many of the insurance adjusters were irresponsible young men who objected to "going all over the State to get an agreement signed." The same commission found evidence of collusion between an insurance carrier and the assured employer as regards accident reporting. After the commission had called the insurer's attention to the fact that the facts as set forth in the agreement between the insurer and injured employee and the facts as stated in the employer's accident report did not agree, the insurer wrote to the insured employer requesting him to alter the accident report. Another insurer requested its injured claimants not to answer any of the commission's communications until the claimant had first taken the matter up with the insurer. The commission further stated that it was a common occurrence for insurance companies not to forward accident reports sent to them by their insured employers. This complaint was also made by a number of other industrial commissions.

ACCIDENT PREVENTION.

The third test of service is the quantity and quality of effective accident prevention work performed by the different types of insurance carriers. In this department of compensation administration both industrial commissions and State funds are weak. Most of the compensation commissions are not authorized by law to do safety work. Moreover, unfortunately, many commissioners take no interest in accident prevention, holding that their functions are primarily judicial. As regards competitive State funds California, New York, and Pennsylvania are the only States in which one of the regular functions of the fund is accident prevention and inspection. In California excellent safety work is performed by the industrial accident commission apart from the State fund. In some of the exclusive State funds the industrial commissions have undertaken comprehensive safety campaigns. In most of the compensation States, however, the accident prevention work—such as it is—is done by other State departments, usually the factory inspection department.

On the other hand, many of the private insurance companies have well-organized safety departments and are doing excellent safety work. However, it is difficult to measure the effectiveness of the safety work actually performed because there are few reliable statistical data showing reduction in accident severity rates. Frequently the inspection work of the insurance companies is done for competitive purposes. That is, much of their inspection is done to get or keep business, irrespective of whether or not it results in actual reduction of accidents.

SECURITY.

The third test for comparing compensation insurance systems is security—security to both employer and employee. When an employer in good faith insures his risk in a responsible authorized insurance company he should be protected against further liability. But, on the other hand, the employee should not be deprived of his compensation benefits through or because of the insolvency of the employer or the insurance carrier. It would seem, however, that the employees' interests are of primary importance and should be given first consideration.

STOCK COMPANIES.

The security or solvency of private stock companies depends first upon adequate insurance rates and second upon sufficient reserves. Both should be under the strict supervision and regulation of the State. No company can long maintain its solvency with inadequate rates. Under stress of competition the temptation to reduce rates below the safety level becomes too great to resist. State regulation is necessary to maintain the solvency of the insurance carrier and to protect the compensation rights of injured employees. But notwithstanding these obvious facts nearly one-half of the compensation States make no provision for rate regulation. Small wonder then that such a state of affairs has resulted in several disastrous failures during the past three or four years. The failure of such

companies as the Guardian Casualty & Guaranty Co. of Utah, the Casualty Co. of America, and the Commonwealth Bonding & Insurance Co. of Texas resulted in thousands of dollars of unpaid compensation claims. In those States in which the law held both the employer and insurer individually liable these losses had to be met by the employers. In other States, in which employers are relieved of further liability when insured, the injured claimants were the sufferers. The Legislature of California appropriated between \$60,000 and \$70,000 of public money to pay in full the larger claims of injured employees because of the bankruptcy of the Commonwealth Bonding & Insurance Co. of Texas. Many smaller claims have not yet been taken care of. Whether the State should, as maintained by some, either guarantee the solvency of insurance companies authorized to do business or make good the losses directly out of the State treasury where such insolvency is due to lax insurance laws or their administration is not here discussed.

MUTUAL COMPANIES.

The provisions as to the adequacy of rates and reserves for stock companies should apply also to mutuals. In certain States, however, mutual companies, because of their lower expense ratio, are allowed to issue rates lower than those demanded of stock companies. As to the advisability of this practice insurance actuaries differ. Employers insured in mutual companies, however, are subject to assessment in the event that the losses exceed the premiums. The mutual plan, therefore, seems to offer a greater degree of security to the employee and a less degree to the employer than stock companies.

STATE FUNDS.

A detailed discussion of the solvency of State funds is given on pages 51 to 56 of this report. The bureau did not make an actuarial audit of the various funds, but accepted the data given in the financial statements of the funds which were furnished the bureau or taken from their published reports. As in the case of private companies the rates charged by State funds should be adequate to meet all incurred losses and outstanding obligations and to maintain a sufficient catastrophe reserve and working surplus. The sufficiency of reserves depends upon the method of computation used. It would be desirable to require an annual audit of each State fund by some competent, impartial agency. It would also be desirable to have the methods for computing reserves prescribed by law. However, the financial statements of the funds show, despite the fact that the rates charged are considerably lower than those of private insurance carriers, that many of the funds have declared annual dividends in addition to the accumulation of a comfortable surplus. In fact, some of the funds have a surplus far in excess of the needed requirements to guarantee or maintain the solvency of the fund.

As a matter of fact, no injured employee has as yet suffered the loss of his compensation through the financial failure or insolvency of State funds, either competitive or exclusive. The nearest approach

to this condition was in Washington in the case of a powder explosion the first year the act became operative. One large powder manufacturer questioned the constitutionality of the act and refused to pay its premiums into the fund. Until the constitutional question was decided this one classification was temporarily insolvent, with the result that the dependents of the workmen killed in the explosion suffered delay in receiving their compensation benefits. The West Virginia fund also suffered two severe coal-mine disasters during the first two years' operation of the act. As a result of these two catastrophes and the inadequate rates charged the coal-mine classification has been insolvent up to the present time. However, since the West Virginia fund is an indivisible one, the coal-mine losses have been paid from the general premium income and surplus of the fund.

The question of failure or insolvency is more of an academic than a practical question as far as the exclusive State funds are concerned. If the premium income is insufficient to meet the year's losses it is only necessary to increase the rates. This is also true as regards the funds in some of the competitive-fund States. In other competitive-fund States, New York for example, the employer when insured in the fund is relieved of all further liability. The fund therefore becomes the employee's sole protection. Nor does any State having such a fund assume liability in case of the fund's insolvency. On the contrary, some of the States specifically disclaim liability beyond the amount of the fund. Since no State fund has as yet become insolvent the policy of the State as regards compensation claims in the event of the fund's insolvency can not be ascertained. However, its probable attitude may be seen from the experience in California where, as already noted, the legislature of the State appropriated over \$60,000 to pay claims resulting from the bankruptcy of a private stock insurance company.

Some of the competitive funds are not required to and do not report their experience to the State insurance department as private companies must. It is maintained, moreover, that because their right to reject undesirable risks is circumscribed by law, State funds should have greater freedom than private insurance companies with respect to rates. It is further contended that the power of supervision over rates, if exercised by a hostile insurance department, could hamper a State fund, if not actually put it out of business.

SELF-INSURERS.

Practically all of the compensation States except those having strictly exclusive State funds permit employers to carry their own risk subject to such safeguards as the law may prescribe. A discussion of the subject of self-insurance is given on pages 64 and 65.

In 15 of the 21 States reporting experience as to self-insurance no self-insured employer has failed or gone into the hands of a receiver; 3 States reported one failure each and 1 State reported two failures, but in all these cases the compensation claims were paid either by the receiver or through security which had been deposited. Only two States reported failures—one small concern in each State—which resulted in several claims being unpaid.

SUMMARY CONCLUSIONS.

Cost.—The cost of compensation insurance to employers under different insurance systems may be indicated by their expense ratios. The average expense ratio of stock companies is approximately 38 per cent; of mutual companies, about 20 per cent; of competitive State funds, about 10.6 per cent; and of exclusive State funds, about 4 per cent. Under an exclusive State fund, therefore, the cost to employers would be 30 per cent less than under stock insurance and 16 per cent less than under mutual insurance. The total saving to insured employers of the United States, if all were insured in exclusive State funds, would be over \$30,000,000 annually.

Service.—As regards service comparisons are difficult because of the great variations among different insurance systems. As to promptness of payments there is little to choose among the different types of insurance carriers. Some of the State funds pay promptly while some do not. The same thing may be said with respect to stock and mutual companies. However, a comparison of one of the best-managed State funds in this respect with one of the best-managed private companies shows that the State fund is more prompt in its payments than the private company. A significant fact developed by the investigation is that self-insured employers, whom one would expect to pay promptly, are no more prompt in this respect than either State funds or private carriers. As regards liberality of payment most of the State funds are more liberal in this respect than either stock or mutual companies. As regards accident prevention some of the private companies are doing excellent safety work, whereas few of the State funds have done any effective safety work.

Security.—Thus far no injured workman has lost his compensation because of the insolvency of State insurance funds, nor has any large mutual company become insolvent. On the other hand, there have been several disastrous failures of private stock companies during the last three or four years. These failures have resulted in hundreds of thousands of dollars in unpaid claims. As regards self insurance, the experience of 21 States has been reported to the United States Bureau of Labor Statistics. In 15 of these States no self-insured employer has failed or gone into the hands of a receiver.

ADMINISTRATIVE FUNCTIONS, PERSONNEL, AND EXPENSES OF COMMISSIONS AND FUNDS.¹²

Compensation laws are administered by industrial accident commissions or boards composed usually of three or five members and a staff of employees. A few of the laws are administered by a single commissioner, while in Massachusetts the board consists of six members. In most of the States the functions of the commission are limited to the administration of the compensation act proper. In some States the commission also has charge of the accident prevention work and in a few States the commission enforces all the labor

¹² Since the investigation upon which this report is based was made four States herein considered (California, Michigan, New York, and Washington) have made important changes in the organization of the compensation commissions. In California, Michigan, and Washington the commissions have been combined with other labor-law enforcing agencies; while in New York the former industrial commission of five members has been superseded by a single administrative head.

laws, including those relating to safety, woman and child labor, factory inspection, conciliation, etc. In most of the States having State insurance funds the commission is also charged with the administration of the fund.

FUNCTIONS AND WORK OF COMMISSIONS.

The actual duties and work performed by the commissioners themselves vary greatly in the several States. These variations are the result not only of the differences in the laws but of the relative importance attached by the commissions to the several functions and of the development of administrative organization within the State. In some of the States, particularly Massachusetts and Pennsylvania, the commissioners devote practically all their time to the hearing of cases. In practice they exercise quasi-judicial rather than administrative functions. In other States, including practically all of the exclusive State funds, very little time is consumed in holding hearings. In fact formal hearings are the exception rather than the rule. Some of the commissions have found it desirable to allocate the work of the commission among its several members. In California, for example, one commissioner has charge of the accident-prevention work of the commission while another has supervision over compensation matters. In Oregon one commissioner has charge of financial matters, one of rehabilitation, and one of safety. Similar allocation of functions exists in British Columbia, New York, Utah, and Wisconsin. A more detailed description of the work and functions of each commission may be found on pages 152 to 194.

Of the 20 States here considered the functions of 10¹³ commissions are limited to the administration of the compensation law proper. Of these Illinois also administers the conciliation and arbitration act, while Colorado administers the minimum wage law and is also charged with the enforcement of the safety act, but this latter function is exercised by the bureau of labor statistics. Four compensation commissions¹⁴ administer the safety laws as well as the compensation act. Six commissions¹⁵ administer the entire body of labor laws. Pennsylvania has two agencies concerned with the administration of the compensation act. One, the workmen's compensation board, composed of three members, is a judicial body which decides disputed cases arising under the act. The other agency is the department of labor and industry which administers all the labor laws. The department also administers the compensation act, except that disputed cases involving formal hearings go to the workmen's compensation board for adjudication. In the exclusive-fund States the functions of the commission include the administration of the insurance provisions, i. e., the formulation of insurance rates, collection of premiums, payment of claims, etc.

In six¹⁶ of the nine States having competitive State insurance funds the commission also has supervision over the fund. The immediate administration is intrusted to a manager appointed by the commission. The amount of power and authority exercised by these

¹³ Colorado, Idaho, Illinois, Maryland, Massachusetts, Michigan, Nevada, Ontario, Washington, and West Virginia.

¹⁴ British Columbia, California, Montana, and Oregon.

¹⁵ Indiana, New York, Ohio, Pennsylvania, Utah, and Wisconsin.

¹⁶ California, Colorado, Maryland, Montana, New York, and Utah.

State fund managers varies. In California the manager has practically entire control over the affairs of the fund, whereas in Montana the fund is an integral part of the commission. Of the other three competitive funds those of Idaho and Michigan are under the jurisdiction of the State insurance departments, while the Pennsylvania fund is under the control of a specially created board which appoints the fund manager. On the whole, funds under the jurisdiction and supervision of compensation commissions have been found to be better administered than those administered by insurance departments.

PERSONNEL AND EXPENSES.

The number of employees and the expenses of the several commissions naturally vary greatly. They are dependent upon the size of the State, the functions performed by the commissions and the thoroughness with which the work is performed. As a rule those commissions which have relatively the most employees and show the largest administrative expenses also perform the best service. In fact an efficient administration requires an adequate administrative force. But the total administrative expenses of the commissions when compared with the total premium income are almost negligible, averaging less than 2 per cent.

Table 7 shows the administrative expenses and number of employees of the commissions and funds in the 20 States investigated. Column 2 shows the number of commissioners, and column 3, their tenure of office. Columns 4 and 5 show the number of employees in each commission and fund. Columns 6 and 7 show the annual administrative expenses for each commission and fund. These expenses have not been audited by the bureau but were accepted as reported by commission or fund. In some of the States the commission is located in the State Capitol and a fair rental value must be added to the expenses to make them comparable with those of commissions located in rented buildings. The reported expenditures are for the administration of the compensation law only and do not include expenditures for accident prevention work except in the case of the California, New York, and Pennsylvania State funds. Column 8 gives the estimated number of employees covered by the several compensation acts and is included in the table to indicate roughly the volume of business transacted in each State. The administration expenses given, in the case of State funds (exclusive and competitive), are all for the year 1920 except the following: West Virginia (1919), and Montana (1919). The expenses for the commissions are all for 1919 except those for Pennsylvania, which are for 1920-21. The number of employees are for the year 1920 except in the case of the Ohio, Ontario, and Wisconsin commissions, and the Pennsylvania fund, which are for 1919, and the Pennsylvania commission, which is for 1921.

24 COMPARISON OF WORKMEN'S COMPENSATION INSURANCE.

TABLE 7.—ANNUAL ADMINISTRATIVE EXPENSES AND NUMBER OF EMPLOYEES OF INDUSTRIAL COMMISSIONS IN SPECIFIED STATES.

State.	Number of commissioners.	Term of office of commissioners (years).	Number of employees.		Annual administrative expenses. ¹		Estimated number of employees covered by compensation act. ²
			Commission	Fund.	Commission.	Fund.	
1	2	3	4	5	6	7	8
Exclusive-fund States:							
British Columbia.....	3	10	46	.....	\$81,806	.....	110,000
Nevada.....	3	4	8	.....	34,061	.....	24,746
Ohio.....	3	6	214	.....	443,148	.....	1,008,813
Ontario.....	3	Life.	72	.....	207,052	.....	500,000
Oregon.....	3	4	119	.....	202,208	.....	98,910
Washington.....	3	6	89	.....	203,595	.....	191,458
West Virginia.....	1	6	42	.....	80,423	.....	212,812
Competitive-fund States:							
California.....	3	4	77	237	175,270	\$511,357	611,941
Colorado.....	3	6	18	9	\$ 56,598	\$ 17,800	137,157
Idaho.....	3	6	5	15	15,542	34,392	50,119
Maryland.....	3	6	21	8	\$ 63,915	26,000	188,433
Michigan.....	3	6	28	16	61,551	42,986	597,585
Montana.....	3	4	5	3	\$ 27,000	\$ 9,000	56,826
New York.....	5	6	263	173	422,447	385,665	2,503,020
Pennsylvania.....	3	5	159	85	334,063	336,103	2,149,867
Utah.....	3	6	10	9	\$ 25,000	17,412	60,396
Private-insurance States:							
Illinois.....	5	4	57	.....	\$ 119,297	.....	871,890
Indiana.....	5	4	13	.....	27,929	.....	502,729
Massachusetts.....	6	5	83	.....	159,855	.....	1,109,134
Wisconsin.....	3	6	22	.....	36,855	.....	405,009

¹ Figures do not include expenditures for accident prevention, except California, New York, and Pennsylvania State funds. In the following States the offices of the commission and fund are located in the State Capitol the rental value of which must be added to the given expenses in order to make them comparable with those of the other States: Colorado, Idaho, Indiana, Massachusetts, Montana, Nevada, Oregon, Utah, Washington, West Virginia, and Wisconsin.

² Estimate based on Federal census of occupations for 1910.

³ Two are ex-officio members.

⁴ Includes expenses of State fund.

⁵ Approximately.

⁶ Includes expenses for administering the conciliation and arbitration act (approximately \$10,000).

The source from which administrative expenses of the State insurance funds and compensation commissions are paid are shown in Table 8. It will be noted that the administrative expenses of all of the exclusive State funds except Ohio and Washington are paid out of the premiums. However, in some of these States, a part of the expenses are borne by the State. For example, in British Columbia and West Virginia the salaries of the commissioners are paid by State appropriation and not from the premiums, while in Ontario the expenses are paid out of the consolidated revenue fund to the extent of \$100,000 annually.

Of the nine competitive State funds the administrative expenses of all but two (Colorado and Montana) are paid out of the premium income. In three of these States, however (California, Pennsylvania, and Utah), the legislature appropriated certain amounts to assist the funds in organizing and meeting their initial expenses.

Of the 13 industrial commissions here considered, the administrative expenses of all but 2 (Maryland and New York) are paid from State appropriations. In the two excepted States the expenses are paid through a tax levied on the insurance companies and self-insurers of the State.

TABLE 8.—SOURCE FROM WHICH ADMINISTRATIVE EXPENSES OF STATE INSURANCE FUNDS AND COMPENSATION COMMISSIONS ARE PAID.

State.	How paid.
Exclusive State funds:	
British Columbia.....	Premiums, except salaries of commissioners, which are paid from appropriations.
Nevada.....	Premiums, except printing.
North Dakota.....	Premiums (maximum \$50,000).
Ohio.....	State appropriation.
Ontario.....	\$100,000 annually appropriated; rest from premiums.
Oregon.....	Premiums (maximum 10 per cent of premium income); State pays into fund one-seventh of amount contributed by employers and employees.
Washington.....	State appropriation.
West Virginia.....	Premiums, except salary of commissioner, which is paid from appropriations.
Competitive State funds:	
California.....	Premiums, except that State originally appropriated \$100,000.
Colorado.....	State appropriation.
Idaho.....	Premiums.
Maryland.....	Do.
Michigan.....	Do.
Montana.....	State appropriation.
New York.....	Premiums.
Pennsylvania.....	Premiums since July 1, 1919; prior from State appropriations.
Utah.....	Premiums, except that State originally appropriated \$40,000.
Industrial commissions:	
California.....	State appropriation and rehabilitation fund.
Colorado.....	State appropriation.
Idaho.....	State appropriation and special death fund.
Illinois.....	State appropriation.
Indiana.....	Do.
Maryland.....	Tax on insurance carriers and self-insurers (maximum \$60,000).
Massachusetts.....	State appropriation.
Michigan.....	Do.
Montana.....	Do.
New York.....	Tax on insurance carriers and self-insurers.
Pennsylvania.....	State appropriation.
Utah.....	Do.
Wisconsin.....	Do.

SALARIES OF COMMISSIONERS AND EMPLOYEES.

Table 9 shows the annual salaries of commissioners and principal officers and employees of commissions and funds in specified States.

TABLE 9.—ANNUAL SALARIES OF COMMISSIONERS AND PRINCIPAL OFFICERS AND EMPLOYEES OF COMMISSIONS AND FUNDS IN SPECIFIED STATES.

State.	Commissioner.	Commissioner.	Fund manager.	Secretary.	Claims manager.	Chief actuary or auditor.	Statistician.	Clerk.	Stenographer.
British Columbia.....	\$6,500	\$5,000	.....	\$4,200	\$2,200	\$2,200	\$1,260	\$840-\$1,080	\$1,080
California commission.....	5,000	5,000	.....	3,150	3,150	3,000	3,000	1,080-1,320	\$1,200-1,500
California fund.....	.....	.....	\$10,000	3,600	2,400	2,400	1,800	720-960	900-1,140
Colorado.....	4,000	4,000	3,000	3,000	3,000	.....	1,800	1,200	1,200
Idaho commission.....	3,000	3,000	.....	1,680	.....	.....	1,380	1,020	1,200
Idaho fund.....	.....	.....	3,600	1,920	1,500	1,800	.....	900-1,200	1,200
Illinois.....	5,000	5,000	.....	3,300	3,300	.....	2,500	900-1,440	1,200
Indiana.....	4,000	4,000	.....	2,500	.....	.....	.....	1,080-1,200	1,500
Maryland.....	5,000	5,000	3,000	3,000	2,200	1,900	.....	960-1,200	960-1,200
Massachusetts.....	5,500	5,000	.....	4,500	.....	.....	2,500	780-900	.....
Michigan commission.....	3,500	3,500	.....	2,500	.....	.....	.....	1,000-1,200	1,000-1,200
Michigan fund.....	.....	.....	3,300	.....	2,400	2,200	.....	1,000	1,100
Montana.....	6,000	.....	2,100	2,100	1,500	.....	1,200	1,200	1,200
Nevada.....	4,000	.....	.....	1,800	3,000	3,000	.....	1,500	1,500
New York commission.....	8,000	8,000	.....	6,000	16,000	4,000	.....	.....	.....
New York fund.....	.....	.....	8,000	.....	3,000	7,000	3,500	836	1,020
Ohio.....	5,000	5,000	.....	3,000	2,400	4,000	.....	.....	.....
Ontario.....	10,000	7,500	.....	4,490	4,490	.....	3,900	600-900	600-900
Oregon.....	3,600	3,600	.....	2,268	2,400	2,100	.....	840-1,200	780-1,140
Pennsylvania commission.....	7,500	7,000	.....	5,000	14,500	5,000	1,800	1,200	1,020
Pennsylvania fund.....	.....	.....	7,500	.....	3,000	3,000	3,000	1,500	1,050
Utah commission.....	4,000	4,000	.....	1,680	.....	.....	1,500	1,020-1,140	1,200
Utah fund.....	.....	.....	3,000	.....	1,800	2,100	.....	1,500	1,080
Washington.....	4,200	4,200	.....	3,000	2,100	2,400	2,400	840-1,200	960-1,200
West Virginia.....	6,000	.....	.....	3,600	2,400	3,900	.....	1,200-1,680	1,080-1,200
Wisconsin.....	5,000	5,000	.....	3,750	3,650	.....	3,000	1,020	1,200

¹ Director of bureau of workmen's compensation.

² This is the salary of the chairman of the workmen's compensation board. The salary of the commissioner of labor and industry is \$10,000.

The salaries for each of the several employees are not strictly comparable, because their duties and functions are not always identical. In some States, for illustration, the secretary also has charge of the claims department or the actuarial and statistical work. In others the chief actuary is also the chief statistician, the employee bearing the title of statistician being merely a statistical clerk. Then, too, because of the great difference in importance and functions similar positions in, say, New York and in Idaho, would hardly be comparable.

In four¹⁸ of the States the chairman receives a larger salary than the other members of the commission. The salaries of State fund managers show the greatest variation, ranging from \$10,000 in California to \$2,100 in Montana. The manager of the California State fund receives a higher salary not only than any other manager but than any compensation commissioner with the single exception of the chairman of the Ontario board. In fact, the California State fund manager is paid twice the salary received by the members of the commission, by whom he is appointed and who fix his remuneration. This is the only instance in which a subordinate officer receives a higher salary than members of the commission.

METHODS OF ACCIDENT REPORTING AND CLAIM PROCEDURE.

Compensation laws were enacted for the purpose of indemnifying injured workmen or their dependents for loss of wages resulting from industrial injuries or deaths. To insure the prompt payment of the statutory benefits in accordance with the law, administrative procedure was provided and commissions created. Several types of procedure have been provided. Ordinarily the adjudication of all undisputed compensation claims is based primarily upon written reports. In disputed cases either the questions at issue are personally investigated or the parties come before the commission for a formal hearing. In practice only about 5 to 25 per cent of the compensable injury cases are heard formally by the commission, the other 75 to 95 per cent being adjudicated from written reports. In New York, however, the commission holds a hearing in every compensable case.

The number and kind of reports required in a given State depend upon the functions of the commission and upon the type of procedure provided. For example, the functions and procedure of a commission which administers an exclusive State insurance fund differ materially from those of a commission having merely supervisory or judicial powers.

In this section is presented a comparative discussion of the accident reporting and claim procedure methods in use in the 20 States investigated.¹⁹ The following subjects are discussed: What employers are required to report accidents; what accidents are required to be re-

¹⁸ British Columbia, Massachusetts, Ontario, and Pennsylvania.

¹⁹ Since the investigation upon which this report is based was made four States herein considered (California, Michigan, New York, and Washington) have made important administrative changes. In California, Michigan, and Washington the compensation commissions have been combined with other labor-law-enforcing agencies, while in New York a single administrative head has replaced the former industrial commission of five members. Such administrative consolidations, however, would have little effect upon the detailed procedure respecting the handling of accident reports and claims.

ported; what data are required on the report forms; how soon accidents are reported; what reports are required and from whom, i. e., employers' reports, physicians' reports, workmen's claims, voluntary agreements, supplemental reports and receipts; indexing, numbering, and filing systems. A detailed description of the claim procedure of each State may be found on pages 88 to 194.

WHAT EMPLOYERS ARE REQUIRED TO REPORT ACCIDENTS.

The scope of laws relative to the reporting of accidents is not necessarily synonymous with the scope of the compensation provisions. Most of the compensation laws require all employers to report their accidents to compensation commissions, whereas in no State are all employers subject to the compensation act. As a matter of practice, however, many commissions require only employers under the compensation act to report accidents. Of the 20 States and Provinces here considered, the laws of all but two (Illinois and Nevada) require accident reports from all employers, irrespective of whether they are under the compensation act. In Illinois and Nevada only employers subject to the compensation provisions are required by law to report their accidents to the industrial commission. However, in 11²⁰ of the other 18 States the commissions in actual practice require only employers under the compensation act to report accidents. But even of those States which require all employers to report accidents, few commissions tabulate all the accidents reported. Oregon and Wisconsin exclude from their tabulations all noncompensable accidents. In fact, California and Massachusetts are practically the only States which have tabulated all industrial accidents.

WHAT ACCIDENTS ARE REQUIRED TO BE REPORTED.

The committee on statistics and compensation insurance cost of the International Association of Industrial Accident Boards and Commissions has recommended that reportable accidents should include "all tabulatable accidents, diseases, and injuries and all nontabulatable accidents, diseases, and injuries which require any medical expenditure." The committee further defines a tabulatable injury as "an accident or disease which arises out of the employment and results in death, permanent disability, or in the loss of time other than the remainder of the day, shift, or turn on which the injury occurred."

There is a tendency among the several States to follow the recommendations of the committee, although there still exists considerable diversity as to what accidents should be reported. Some commissions require the reporting of all accidents, no matter how trivial, whereas other commissions require the reporting of compensable accidents only, i. e., those in which the length of disability exceeds the waiting period.

In the seven exclusive-fund States²¹ it is of course necessary for the commission to receive reports of all injuries requiring medical aid, because the cost of medical attendance as well as the compensation benefits must be paid by the commission. In these States, therefore,

²⁰ British Columbia, Idaho, Indiana, Maryland, Michigan, Montana, New York, Ohio, Utah, Washington, and West Virginia.

²¹ British Columbia, Nevada, Ohio, Ontario, Oregon, Washington, and West Virginia.

practically all tabulatable accidents must of necessity be reported, since such accidents almost always require some medical aid.

In the other 13 States the practice varies. Four State commissions²² require every accident, whether or not resulting in any disability, to be reported. Two commissions (Illinois and Wisconsin) require reports of compensable accidents only. Pennsylvania requires the reporting of accidents of two days' disability or over. The other States require all disability accidents, or those requiring medical attendance, to be reported.

Whether it is desirable to have all accidents reported may be a debatable question. As already noted, in a few States this is the practice. It is maintained that a certain percentage of trivial accidents later develop into serious injuries and, consequently, it is well to have a complete record on file. Such a record, it is further maintained, would on the one hand help the injured employee to prove a bona fide claim, and on the other hand help to prevent fraudulent claims. It is contended also that if employers are required to report only tabulatable accidents, they will be less thorough in reporting and, consequently, many tabulatable and even compensable accidents will not be reported; whereas if all accidents are required to be reported, not only the nontabulatable but also a larger proportion of the tabulatable accidents will be reported. On the other hand, the arguments against the practice of reporting every trivial accident point out, in the first place, that the work of reporting, recording, and filing accident reports would be practically doubled. The Massachusetts experience shows that over 50 per cent of the accidents reported to the industrial accident board are nontabulatable. In fact, during the year 1918-19, 178,084 accident reports were received by the board, of which only 67,240 were tabulatable. And inasmuch as most of the compensation commissions are handicapped by an inadequate clerical force, it is maintained that better results could be obtained by concentrating their attention upon the more serious accidents.

Some hold that it would be sufficient for the employer merely to keep a list of these nontabulatable accidents without making a formal report thereof to the commission; that such a record would protect both the employer and the employee in the event of a subsequent claim arising out of a trivial accident. The argument that in order to obtain a complete list of all tabulatable accidents it is necessary to require all accidents to be reported is not well taken. Massachusetts, for instance, requires all accidents to be reported, whereas California requires only those involving time loss or medical aid; yet there are relatively more tabulatable accidents of under one week reported in California than in Massachusetts. The completeness with which accidents are reported depends not so much upon what accidents are required to be reported as it does upon the thoroughness of the follow-up work of the commission.

However, the question as to whether it is necessary or desirable to report noncompensable accidents still remains. As already noted, Illinois and Wisconsin receive only reports of compensable accidents. In both of these States accidents whose disability is less than the waiting period (one week in both States) are not required to be reported.

²² Colorado, Idaho, Massachusetts, and Michigan.

It is maintained by the commissions that with the limited force at their disposal, it is better to neglect the noncompensable accidents altogether and devote more time to the investigation, supervision, and analysis of compensable accidents. On the other hand, several reasons are advanced why all tabulatable accidents (noncompensable as well as compensable) should be reported: 1. If employers are required to report only compensable accidents, a considerable number of such accidents will probably not be reported, either through oversight or otherwise. 2. A complete record of the cost of the medical service would not be available. 3. A record of all disability accidents is necessary in order (a) to determine the increased cost resulting from a reduction of the waiting period, and (b) to compute accurate accident frequency and severity rates. A compromise solution would be to require that all tabulatable accidents be reported, but to limit the tabulation to compensable cases, unless the commission has a sufficient clerical force to tabulate all the accidents. Several States (British Columbia, Michigan, Ontario, and Ohio) have separate report blanks for compensable and noncompensable accidents. The noncompensable report forms are simple and call for only a few fundamental facts. In Michigan the noncompensable reports are filed in a separate file apart from the compensable cases. No further action is taken with respect to them.

WHAT DATA ARE REQUIRED ON ACCIDENT REPORT FORMS.

The formulation of a standard uniform accident report blank has received a great deal of attention from the committee on statistics of the International Association of Industrial Accident Boards and Commissions and from other organizations. As early as 1911 a committee of the American Association for Labor Legislation worked out a standard report form. This form, which was revised by the committee on statistics in 1915 and again in 1920, has served as a model for most of the States. The primary purpose of the committee was to obtain data for the compilation of accurate and comparable accident statistics. It aimed, therefore, to limit the items called for on the report blank to data which are both essential and obtainable. Most of the States, however, found it necessary to include many items in their report forms not found in the committee's schedule. These items were essential for administrative purposes. In fact, from the commission's standpoint, the kind and amount of data on the accident report form are dependent primarily upon the requirements of the claims department; and these requirements depend upon the compensation provisions of the several acts, which vary from State to State. Furthermore, exclusive State fund commissions require more detailed information than other commissions. The former, intrusted with the duty of paying compensation claims, require, for example, detailed information relative to the occurrence of the accident—whether or not it arose out of and in the course of the employment, etc. These data are of no particular importance to the nonfund commissions except in disputed cases, nor are they necessary for statistical purposes.

However, some of the questions found on the report forms of a number of States could be eliminated, since the data called for are

of little or no importance, or if important are not obtainable. If employers are required to answer unnecessary or unreasonable questions it is likely to create dissatisfaction with the entire report form and thus impair the accuracy of answers which are of primary importance.

As already noted, the number of items on the first report form varies considerably among the several States, ranging from 24 in California and 27 in Illinois, to 51 in Nevada and 52 in Oregon. The number on the original standard form of the committee on statistics was 32, whereas the number on the latest revision is 30. Following is a reproduction of the standard form as revised in 1920:

STANDARD FORM FOR ACCIDENT REPORTS.

First Report of Accident to Employee.

[To be filled out and sent in within 48 hours of the accident.]

1. Employer.	a. Employer's name _____ b. Office address: Street and No. _____; city or village _____ c. Business (goods produced, work done, or kind of trade or transportation) _____ d. Location of plant or place of work where accident occurred, if not at office address: Street and No. _____; city or village _____ e. Name of insurance carrier _____
2. Injured person.	a. Date on which accident occurred _____ b. Working hours per day _____; c. Working days per week _____ d. Piece or time worker _____; e. Wages or average earnings per day _____; per week _____ f. Name _____; address _____ g. Sex _____; h. Age _____ i. Occupation when injured _____; In what department or branch of work? _____; was this regular occupation? _____; if not, state regular occupation _____
3. Cause of injury.	a. Describe in full how accident occurred _____ b. Name of machine, tool, or appliance in connection with which accident occurred _____; by what kind of power driven? _____; hand feed or mechanical feed? _____; part on which accident occurred _____
4. Nature and extent of injury.	a. State exactly part of person injured and nature of injury _____ b. Did injury cause loss of any member or part of a member? If so, describe exactly _____ c. Has injured person returned to work _____; if so, give date and hour _____ d. Date disability began _____
5. Medical care.	a. Attending physician; name and address _____ b. Hospital; name and address _____
Date of report _____; made out by _____	

In order that the contents of the accident report forms of the more important industrial States may become available for all the States, it has been deemed advisable to prepare a composite table. This table (Table 10) shows all of the items found on the report forms of the 20 States investigated and also notes what items are called for on the report of each State. It will be noted that although the number of items for each State ranges from 24 to 52, the total number for the combined 20 States is 116. However, of these 116 items, 23 are found in the form of only one State, 17 in the forms of only two States, and 16 in those of only three States.

TABLE 10.—QUESTIONS CONTAINED IN THE FIRST ACCIDENT REPORT FORM IN SPECIFIED STATES.

Item.	Standard (original).	Standard (revised).	British Columbia.	California (com.).	California (fund).	Colorado.	Idaho.	Illinois.	Indiana.	Maryland.	Massachusetts.	Michigan.	Montana.	Nevada.	New York.	North Dakota.	Ohio.	Ontario.	Oregon.	Pennsylvania.	Utah.	Washington.	West Virginia.	Wisconsin.
EMPLOYER.																								
1. Employer's name and address.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2. Location of plant.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3. Business.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4. Engaged in construction, operation, or repair.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5. Mining methods.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
6. Was employee employed direct or by subcontractor.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
7. Did accident occur on work for a public corporation.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
8. Name of superintendent.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
9. Number of employees engaged in said business.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
10. Has employer (or employee) elected compensation act.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
11. Name of insurance carrier.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
12. Was employee engaged in interstate commerce.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
EMPLOYEE.																								
13. Name and address.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
14. Work number.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15. Sex.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
16. Age.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
17. Married or single.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
18. If married, living with (and supporting) wife.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
19. Number of children under (and over)—years of age.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
20. Name, age, relationship, and address of children or dependents.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
21. Relation of employer to employee.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
22. Employment certificate of minors on file.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
23. Place of birth.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
24. American or foreign born.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
25. American or foreign; if foreign give nationality.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
26. Nationality.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
27. Nationality and race.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
28. Allegiance (or citizen of what country).....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
29. American citizen.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
30. Color.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
31. Speak English.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
32. Speak English; if not, what language.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
33. Occupation of employee.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
34. Occupation when injured.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
35. Was it his regular occupation.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
36. If not, state regular occupation.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
37. Department or branch of work.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
38. How long had employee worked at occupation at which injured.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
39. How long had employee been in employer's service.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

32 COMPARISON OF WORKMEN'S COMPENSATION INSURANCE.

TABLE 10.—QUESTIONS CONTAINED IN THE FIRST ACCIDENT REPORT FORM IN SPECIFIED STATES—Continued.

Item.	Standard (original).	Standard (revised).	British Columbia.	California (com.).	California (fund).	Colorado.	Idaho.	Illinois.	Indiana.	Maryland.	Massachusetts.	Michigan.	Montana.	Nevada.	New York.	North Dakota.	Ohio.	Ontario.	Oregon.	Pennsylvania.	Utah.	Washington.	West Virginia.	Wisconsin.
INJURY.																								
<i>Date.</i>																								
40. Date of accident.....	X	X																						
41. Hour of accident.....	X	X																						
42. Date disability began (or ceased work)...	X	X																						
43. Hour disability began.....	X	X																						
44. Hour employee began work (or number of hours worked) before injury.....	X																							
45. Day of week accident occurred.....	X																							
<i>Notice.</i>																								
46. Was employer notified of accident; when.....		X								X			X	X										
47. Did employer have knowledge of injury.....													X											
<i>In course of employment.</i>																								
48. Did accident happen in course of employment (or was workman injured in employer's business).....		X			X	X				X			X	X		X	X	X	X			X		
49. Did accident happen on employer's premises.....		X		X		X				X			X	X		X	X	X	X			X		
50. Where did accident happen.....		X		X					X			X	X	X		X	X	X	X			X		X
51. Did injury occur above or below surface (mining accidents).....						X														X				
52. Did injury occur on board ship; off or on shore duty.....																					X			
<i>Arising out of employment.</i>																								
53. Was accident due to employee's misconduct, lack of care, violation of law, etc.....		X		X	X	X								X	X	X	X	X	X			X	X	
54. Was any fellow employee to blame.....		X		X										X	X	X	X	X	X			X	X	
55. Was injury caused by another person.....		X		X										X	X	X	X	X	X			X	X	
56. Was employee on duty at time of injury.....													X											
57. Who instructed employee to do work at which he was injured.....													X										X	
58. Was injured employer, employee, patron, or passenger.....																		X						
<i>Cause.</i>																								
59. Describe how accident happened.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
60. Name of machine or tool.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
61. Kind of power driven.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
62. Hand or mechanical feed.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
63. Part on which accident occurred.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
64. Were safeguards provided; was accident caused by removal of safeguards.....		X							X				X							X				X
65. Suggest prevention of accident.....		X				X				X			X			X				X				X
66. What other causes or conditions helped to cause accident.....																				X				X
WAGES OR EARNINGS.																								
67. Working hours per day.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
68. Working days (or hours) per week.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
69. Wage rate per hour.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
70. Wage or earnings per day.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
71. Wage or earnings per week.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
72. Wage or earnings per month.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
73. Piece or time worker.....	X	X																						
74. How long had employee received earnings stated.....		X											X				X	X	X					
75. Does employee work on Sunday.....														X						X				
76. Does employee work day or night.....														X						X				
77. Total earnings during prior year (or other period) worked.....		X																						
78. How much, if any, of this time did he not work.....		X																						
79. Other employers for whom employee worked during prior half year (or other period).....						X																		

TABLE 10.—QUESTIONS CONTAINED IN THE FIRST ACCIDENT REPORT FORM IN SPECIFIED STATES—Concluded.

Item.	Standard (original).	Standard (revised).	British Columbia.	California (com.).	California (fund).	Colorado.	Idaho.	Illinois.	Indiana.	Maryland.	Massachusetts.	Michigan.	Montana.	Nevada.	New York.	North Dakota.	Ohio.	Ontario.	Oregon.	Pennsylvania.	Utah.	Washington.	West Virginia.	Wisconsin.
WAGES OR EARNINGS—concluded.																								
80. Cause and duration of each loss of time.....			X																					
81. What are average weekly earnings of ordinary workman for year at same work.....			X																					
82. Was employee paid any (or full) wages for day of injury.....												X												
83. Was employee paid wages during disability.....														X										
84. Did employee work any after first laying off; give dates.....			X																					
NATURE AND EXTENT OF DISABILITY.																								
85. State part of person injured and nature of injury.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
86. Did injury cause loss of any member or part thereof.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
87. Did injury result in serious disfigurement.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
88. Has injured person returned to work.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
89. When; date and hour.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
90. Probable length of disability.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
91. Will employee be disabled more than one week.....						X																		
92. Did workman return to work as soon as injury would permit.....																	X							
93. How many days a week is workman employed (after the injury).....																	X							
94. At what occupation was workman reemployed.....									X															
95. At what wages was he reemployed.....															X									
96. Had employee any prior physical defect.....																		X						
97. If injury was fatal, give date of death.....																			X					
98. Was injury fatal; give name, age, relationship, and address of dependents.....				X	X			X	X											X				X
99. What compensation and medical payments have been made.....				X				X																
100. Does employee's report form contain chart of human form.....			X										X		X		X							
MEDICAL CARE.																								
101. Name and address of physician.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
102. Name and address of hospital.....			X																					
103. Where is injured employee now.....			X																					
104. Was medical attendance furnished by employer.....			X																					
105. How soon after accident.....																								
106. Is employer still providing medical care.....																								
107. Who selected the physician.....				X																				
108. How soon after accident was physician selected.....																								
109. Did employee refuse medical attendance; why.....						X																		
110. Was ambulance used; name of ambulance company.....							X										X	X						
111. Does employer operate under medical plan or hospital contract.....							X						X	X					X			X		
112. Does employee pay hospital dues; how much.....														X					X					
113. Names of witnesses of accident.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
114. Date report made out.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
115. Signature required.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
116. Official title required.....	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Total number of items.....	32	30	47	24	33	40	38	27	29	38	34	31	45	51	40	42	32	46	52	42	37	43	37	30

HOW SOON ACCIDENTS ARE REPORTED.

Practically all of the industrial commissions require a first report of the accident from the employer. Some States also require a report from the attending physician and some, including almost all of the State funds, require the injured workman to file a claim. This matter, however, will be discussed in greater detail later.

The dispatch in claim procedure and the promptness with which compensation payments are made depend largely upon how soon accidents are reported to the commission. This again depends somewhat upon the length of the waiting period, but mostly upon the policy and practices of the commission, which, of course, are dependent to some extent upon the statutory requirements relative to the reporting of accidents. Of the 20 States studied, about one-half, including nearly all of the exclusive State funds, require accidents to be reported to the commission at once. In Illinois employers need report but monthly. In the other States the practice varies between these two extremes, except that the California commission does not require the employer's report to be sent in until the end of 35 days. In this State, however, the employers' reports are used merely for statistical purposes, the basic report for administrative purposes being that of the attending physician.

Exclusive State fund commissions must furnish medical service as well as pay compensation, and it is important, therefore, that reports of accidents should be received as soon as possible. The Ohio State fund, however, is the one exception to this rule; the first report of the accident in this State need not be transmitted to the commission until the end of two weeks. This explains in part the delay in making compensation payments in Ohio. In the nonexclusive-fund States the functions of the commission are primarily supervisory and adjudicatory. The commissions must see to it that claims are paid by the employers or insurance carriers. It is the compensable injuries, therefore, in which they are chiefly interested. Consequently their requirements as to promptness in accident reporting depend somewhat more upon the waiting period. The first thing a commission usually desires to know about an industrial accident is its severity. Is the injury compensable and does the disability extend beyond the waiting period? This fact is, as a rule, not known at the time of the injury. If, then, a report of the accident is made out immediately after its occurrence, it will be necessary in nearly every case to make out a supplemental report at the expiration of the disability period. This increases clerical work of both the employer and the commission. However, if the making out of the first report of the accident is postponed until the end of the waiting period, or until the expiration of the disability period if the injured employee returned to work within the waiting period, it is necessary to make out only one report. This not only greatly reduces the number of reports but obviates the necessity of a great deal of follow-up work on the part of the commission. The desirability of this practice, however, depends upon the waiting periods being of reasonable length. For example, in case of a 3 or 7 day period, it would probably be expedient not to require the first report until the end of these periods, whereas in case of a 10 or 14 day waiting period such practice would perhaps not be advisable. All fatal or serious injuries—

those in which the disability would probably continue for at least four weeks—should be reported at once. The practice of the Michigan Industrial Accident Board should be noted in this respect. The Michigan waiting period is one week. The first report of the accident is made on the eighth day, at which time it is definitely known whether the injury is compensable. If the injury is noncompensable—lasting seven days or under—a simple abbreviated report form is used, whereas if it is compensable the standard form is used.

Table 11 shows the promptness with which the employers' first reports of accidents are made in specific States, arranged in ascending order. Column 2 shows the number of cases examined. Column 3 shows the waiting period for each State, as of 1919. Column 4 shows the average (median) number of days elapsing between the date of the accident and the receipt of the report by the commission. Columns 5 and 6 show the per cent of accident reports received within one and two weeks, respectively, from the date of the accident. Columns 7 and 8 show the per cent of cases in which no report had been received within four and eight weeks, respectively, after the accident. For California the records of both physicians' and employers' reports are given. In this State the report of the physician rather than that of the employer is used as the basic report for administrative purposes.

TABLE 11.—PROMPTNESS WITH WHICH EMPLOYERS' FIRST REPORTS OF ACCIDENTS ARE REPORTED IN SPECIFIED STATES, ARRANGED IN ASCENDING ORDER.

State.	Number of cases.	Waiting period (days).	Average interval (median) between date of accident and date report received by commission (days).	Per cent of cases reported within—		Per cent of cases not reported at end of—	
				1 week.	2 weeks.	4 weeks.	8 weeks.
1	2	3	4	5	6	7	8
Massachusetts.....	180	10	4	70.6	90.6	2.4	1.2
California fund.....	51	7	5	64.7	80.4	10.0	4.0
California commission (physician's report).....	48	7	16	72.9	85.4	4.2	0.0
West Virginia.....	185	7	7	52.4	74.6	12.9	3.7
Michigan fund.....	93	7	8	46.2	79.5	9.8	5.4
Utah fund.....	49	3	8	47.0	71.5	14.1	10.1
Idaho commission.....	331	7	9	41.4	68.0	13.2	3.0
Oregon.....	404	0	9	41.1	66.8	12.3	2.1
Maryland commission.....	133	14	9	44.4	64.7	17.4	1.6
Indiana.....	111	7	12	19.8	60.3	23.4	10.8
Washington.....	259	7	13	26.3	58.7	17.4	6.6
New York commission (New York City).....	126	14	13	22.2	56.3	20.8	4.0
British Columbia.....	118	3	13	31.4	52.6	17.6	4.9
Ohio.....	982	7	14	14.4	52.0	14.6	3.0
California commission (employer's report).....	118	7	134	16.1	21.2	63.5	22.0

¹ The California commission requires a physician's report of every accident, and this report, instead of that of the employer, is used as the basic report.

² Ohio does not require a report of the accident from the employer. Instead, the injured workman files a "first notice of injury and preliminary application," followed by a supplemental application. The figures here noted are those of the first notice filed by workman.

The foregoing table shows some interesting facts. In practice, the length of the waiting period has little effect upon the promptness with which accidents are reported. For example, in Massachusetts, with a 10-day waiting period, accidents are reported more promptly than in any other State, the average interval between date of accident and date of receipt of the report by the board being 4 days. The thoroughness of the commission's follow-up methods seems to

be the determining factor in securing promptness in accident reporting. However, employers' reports should not be the sole basis of comparison as to promptness in reporting. The reporting of employers should be compared with that of physicians and with the workmen's claims. This is especially true with respect to State funds. In some States promptness on the part of employers exists side by side with long delay on the part of physicians, or workmen, or vice versa.

Table 12 shows the promptness with which accidents are reported by physicians in specified States.

TABLE 12.—PROMPTNESS WITH WHICH PHYSICIANS' FIRST REPORTS OF ACCIDENTS ARE REPORTED IN SPECIFIED STATES, ARRANGED IN ASCENDING ORDER.

State.	Number of cases.	Waiting period (days).	Average interval (median) between date of accident and receipt of physician's report (days).	Per cent of cases reported within—		Per cent of cases not reported at end of—	
				1 week.	2 weeks.	4 weeks.	8 weeks.
California commission.....	48	7	6	72.9	85.4	4.2	0.0
British Columbia.....	109	3	7	53.2	78.9	8.2	1.8
Oregon.....	405	0	7	51.6	71.4	9.3	2.6
California fund.....	40	7	8	45.0	67.5	10.0	7.5
Utah fund.....	48	3	14	25.0	50.0	18.8	10.5
Maryland commission.....	137	14	27	8.0	16.0	45.3	13.2
West Virginia.....	182	7	36	2.2	9.3	60.2	30.0

It will be noted that the average interval between date of accident and date of receipt of physician's report by the commission varies widely among the several States, ranging from 6 days in California to 36 days in West Virginia.

Table 13 shows the promptness with which workmen's claims are reported in specified States:

TABLE 13.—PROMPTNESS WITH WHICH WORKMEN'S CLAIMS ARE REPORTED IN SPECIFIED STATES, ARRANGED IN ASCENDING ORDER.

State.	Number of cases.	Waiting period (days).	Average interval (median) between date of accident and receipt of workmen's claim (days).	Per cent of cases reported within—			Per cent of cases not reported at end of—		
				1 week.	2 weeks.	3 weeks.	4 weeks.	6 weeks.	8 weeks.
Ohio.....	982	7	¹ 14	14.4	52.0	75.8	14.6	6.7	3.0
Oregon.....	404	0	17	16.1	43.3	65.3	19.1	6.2	3.0
British Columbia.....	117	3	18	17.9	41.0	58.6	21.6	9.6	6.1
California fund.....	50	7	20	.....	16.0	56.0	26.0	22.0	12.0
Nevada.....	204	7	22	14.2	34.3	47.5	34.9	14.8	8.9
Ohio.....	1,013	7	² 25	5.5	26.1	44.4	45.8	29.9	19.3
Maryland commission.....	144	14	26	2.1	8.3	32.6	42.4	17.5	11.2
Utah fund.....	49	3	30	.....	12.2	28.5	53.0	26.5	20.4
New York commission.....	135	14	35	1.5	3.7	20.0	66.6	41.4	22.9
West Virginia.....	184	7	46	.....	3.8	14.1	71.3	52.8	38.6

¹ This is the average interval between the date of accident and filing of "first notice of injury and preliminary application." A supplementary application must be filed by the workman before the claim is acted upon. The figure shown with footnote 2 is the average interval between the filing of first notice and filing of supplementary application. In order to make the Ohio figures comparable with the other States the interval between date of accident and filing of workmen's claim would be approximately 14 plus 25 days.

² A average interval between filing of first notice and filing of supplementary application. For explanation see footnote 1.

Again it will be noted that there is little relationship between the waiting period and the promptness of workmen in filing claims. The average time elapsing between date of accident and receipt of the workman's claim ranges from 17 days in Oregon to 46 days in West Virginia. This long delay on the part of workmen in making claims is due in part to their disability, in part to their unfamiliarity with the requirements of the law, and in part to an inadequate follow-up system on the part of the commission. The delay by the employers, physicians, and workmen in reporting accidents is therefore largely responsible for the delay in making compensation payments.

As between employer, physician, and workman, the employer is more prompt in reporting accidents than either of the other two; then comes the physician, and lastly the workman. This is brought out in the following tabular statement in which the averages of the three types of reports for certain States are brought together.

TABLE 14.—COMPARISON AS TO PROMPTNESS IN REPORTING ACCIDENTS BY EMPLOYER, PHYSICIAN, AND WORKMAN IN CERTAIN STATES.

State.	Average interval (median) between date of accident and receipt of—		
	Employer's report.	Physician's report.	Workman's report.
	<i>Days.</i>	<i>Days.</i>	<i>Days.</i>
California fund.....	5	8	20
West Virginia.....	7	36	46
Utah fund.....	8	14	30
Oregon.....	9	7	17
Maryland.....	9	27	26
British Columbia.....	13	7	18

WHAT REPORTS ARE REQUIRED AND FROM WHOM.

The requirements and practices as to accident reporting and claim procedure of State funds and commissions²³ differ widely, and are consequently incapable of accurate comparison. The chief function of a fund is the payment of compensation claims, whereas the chief function of a commission is to see to it that such claims are paid by others. The funds usually require reports from physicians and workmen and other detailed information and records not required by commissions. Many of the commissions, however, require the insurance carriers to furnish receipts of compensation payments, which, of course, are not necessary in the case of funds. The following are the basic reports used in claim procedure: First report of accident by the employer and physician; claim for compensation by the workman; compensation agreement entered into by workman and employer or insurer; employer's supplemental and final report of accident; physician's supplemental and final report of accident; surgeon's special report; periodical and final receipts showing compensation payments.

²³ To avoid confusion the competitive State funds and the exclusive State fund commissions will in this section be designated as "funds," whereas the industrial commissions, whether in competitive-fund States or in no-fund States, will be designated "commissions."

EMPLOYERS' FIRST REPORT.

Of the 20 States here considered, a report of the accident by the employer is required in every State except Idaho and Ohio. In these two States the employer, instead of making a report himself, signs the application or report of the injured workman, thereby merely certifying that the workman was in his employ at the time of the injury. In Washington the employer and workman have the option of either making out separate reports or reporting on a combined form, the employer filling out the obverse side of the report blank and the workman the reverse side. About four-fifths of the accidents are reported on the combined form. Four States (British Columbia, Michigan, Ohio, and Ontario) have separate reports for compensable and noncompensable accidents, the latter being a simple and abbreviated form. Nine States,²⁴ of which all but three (California, Colorado, and Pennsylvania) have exclusive State funds, require the names of eyewitnesses to the accident.

From the standpoint of efficiency in administration the agency through which the employer's report is transmitted to the commission becomes an important matter. In four States (Massachusetts, Michigan, Utah, and Wisconsin) the employer himself transmits the report direct to the commission. In the other States it is the practice to have the employer's report of the accident transmitted to the commission by the insurance carriers. In some of these States practically all reports are sent in by insurance companies while in other States some employers report direct. The practice of transmitting reports by insurance carriers is defended on the ground that (1) it relieves the employer of sending reports to two different agencies and (2) that it insures a more complete report since the insurance companies, because of their experience, are in a better position to answer the questions asked for on the report blank. Several objections, however, are made to this practice. It is pointed out that the commission should have a prompt, accurate, impartial, and confidential report of the accident, and this can best be furnished by the employer. Transmittal of these reports by the insurance companies not only delays their receipt by the commission but offers the insurer an opportunity to alter the report as initially made out by the employer. In some States, and among some insurers, it is the practice of the carrier to transmit the original, or at least an exact copy of the employer's report, to the commission. Among others, however, it is the practice to make a new report in the insurance agent's office from the data furnished by the employer and to transmit this to the commission in lieu of the original report of the employer. This practice opens the door for fraud and collusion, instances being on record where insurance carriers have requested their assured to change the original report, particularly as regards the weekly wages of the injured workman. It is also responsible to some extent for the long delay in reporting accidents, shown in Table 11. Again, if all of the reports (first report of accident, voluntary agreement, final reports, and receipts) are furnished by the same agency, the commission will be unable to check these reports, one against the other, or determine their accuracy.

²⁴ British Columbia, California (fund), Colorado, Nevada, Ontario, Oregon, Pennsylvania, Washington, and West Virginia.

On the other hand if the commission receives reports from two independent sources it will be in a better position to ascertain the facts by checking the reports from one source against those from the other. For example, if a confidential report of the accident is received from the employer, as is the case in Massachusetts and Wisconsin, the commission can compare this report with the facts as reported by the insurance carrier.

ATTENDING PHYSICIAN'S FIRST REPORT.

The practice relative to the reporting of accidents by the attending physician differs widely among the several States. Some commissions maintain that physicians' reports are unnecessary or worthless unless made by impartial or disinterested physicians, whereas others state that an intelligent adjudication of a claim would be impossible without a report of the injury by the attending physician.

All of the State funds require a first report of the accident by the attending physician or surgeon. In Ohio the physician's report must be signed by the injured workman, while in West Virginia the employer is required to transmit this report. In Pennsylvania all compensable cases are also investigated by the fund's claim adjuster.

Of the 13 commissions, 3²⁵ do not require first reports from attending physicians, whereas 10²⁶ do require such reports. Some of the latter, however, limit physicians' reports to serious cases, while in others the reporting by physicians is done haphazardly. The Wisconsin commission requires such reports only in case of permanent disabilities or temporary disabilities over three weeks. In New York physicians' reports are not essential, since the commission holds hearings in every case and the claimants are examined by the commission's medical advisers. Pennsylvania and Colorado require physicians' reports, but an examination of the files showed that these reports were not regularly received.

WORKMAN'S CLAIM OR AGREEMENT.

Can a commission or fund pass upon the merits of a compensation claim fairly and impartially without some report of the injury from the workman himself? If not, what kind of reports are necessary? These are questions about which there is no unanimity either as regards opinion or practice. Some of the States, especially those having State funds, require the workman to file a claim; others require the workman and employer or insurer to sign an agreement setting forth the essential facts as to wages and nature of injury, which is subject to the approval of the commission; in still other States all reports are made by the employer or insurance carrier, no report being required from the workman.

It is maintained by some that it is desirable to have the workman make a claim or file a report of the injury in order that both he and the fund may be protected. To determine the merits of a case merely upon the reports of the employer or the insurance carrier is

²⁵ Illinois, Massachusetts, and Michigan.

²⁶ California, Colorado, Idaho, Indiana, Maryland, Montana, New York, Pennsylvania, Utah, and Wisconsin.

held to be unjust to the workman, since it would not grant him his "day in court." On the other hand, the following objections are made to this practice. In the first place to postpone consideration of the case until a claim has been filed by the workman would delay the payment of compensation. Second, to require an injured workman to make out a detailed report and to have same acknowledged before a notary, as is done in several States, is to place upon him an unnecessary burden. Again, it is argued that the chief object in requiring the filing of a claim, viz, to obtain an independent and confidential report from the workman himself, is not attained. A large proportion of injured workers can not read or write the English language. Others are not in a position to answer accurately all the questions on the report form. Moreover, those severely injured are physically incapable of making out a report at the time of the accident. The usual procedure for the workman when injured is to enlist the services of his employer in making out a claim. In fact, in Washington, as already noted, the workman and employer may fill out a combined report form, and a majority of the injuries are reported in this way.

Another method of adjusting compensation claims is by means of "voluntary agreements" or "direct settlements." Under this system the procedure is as follows: A first report of the accident is made to the commission by the employer or insurance carrier at the time of the injury. At the expiration of the waiting period an agreement is drawn up between the workman and employer (or employer's insurer) in which the essential facts are set forth. These include the average weekly wages, nature of injury and extent of disability, compensation rate, period covered, etc. This agreement, or direct settlement as it is called in some States, must, however, accord with the statutory provisions and is not valid until approved by the commission. Moreover, it is usually reviewable in case of error, fraud, or changed conditions. Upon receipt of the agreement it is examined by the commission, compared with the original report of the accident, and, if in accordance with the facts and statutory provisions, is approved. If the agreement does not coincide with the facts as stated in the accident report, the matter is investigated by the commission and a new agreement requested. In case of dispute between the parties, a formal claim or petition is filed with the commission and the case is set for a hearing. The execution of the agreement, i. e., the payment of benefits in accordance with its provisions, is attested by subsequent compensation receipts and by the employer's and physician's supplemental reports.

The voluntary agreement system has been both commended and criticized. On the one hand, it is maintained that it furnishes a convenient and expeditious method of adjusting the large majority of accident cases in which there is no dispute as to facts involved; that it gives the workman his "day in court" and therefore the adjudication of the claim upon *ex parte* evidence is obviated; and that, on the whole, it has proved satisfactory and insured substantial justice to both employer and workman. On the other hand, several objections have been raised against the agreement system. It is contended that it delays the payment of compensation. Frequently, injured workmen will not sign the agreement because they are suspicious of the

insurance adjuster and have no confidence in his integrity. They will hesitate to sign any paper for fear of prejudicing their compensation rights. Then, too, the fact that these agreements must be approved by the commission before they become valid delays the compensation payments still further. The average time elapsing between the date of the accident and date of approval of the agreement ranges from five to nine weeks, while some insurance carriers begin compensation payments as soon as they are assured that a claim is legitimate; others make no payments until they have been formally notified of the approval of the agreement by the commission. The result is long and unnecessary delay.

Another criticism of the agreement system is that it does not insure the workman his "day in court." It is maintained that the agreement is a one-sided affair in which the workman signs whatever is placed before him; that the injured worker, frequently illiterate or unable to understand and speak the English language and unfamiliar with his rights under the law, is no match for the experienced insurance adjuster. In case of self-insured employers there is introduced also the element of intimidation. Employees will often hesitate to dispute the correctness of a report or agreement for fear of antagonizing their employer and thus jeopardizing their jobs. This latent power of intimidation effectively inhibits the workman from making a protest. Agreements made under duress are neither voluntary nor give assurance that the facts as stated therein are true or that they are satisfactory to the workman. Moreover, when all reports are made and transmitted by one party, as is the practice in some States and is true with self-insurers in every case, the commission is in no position to determine the accuracy of an agreement by comparing it with a first report of the accident.

The third system of claim procedure is based merely upon reports from the employer and insurance company. No claim, agreement, or any other report is received from the injured workman. The first report, showing date of accident, weekly wages, etc., is followed by supplementary and final reports and receipts which show the extent of disability, the employee's return to work, and the amount of compensation due and paid. The one feature which commends this system of procedure is its simplicity. There is nothing to prevent the employer or insurer from making payments as soon as they are satisfied that the injury is a compensable one. It is maintained that claims and voluntary agreements merely complicate matters and delay compensation payments without adding anything of value in expediting the settlement of the case.

The chief criticism made against this system is that the commission bases its findings of fact and renders its decision upon *ex parte* evidence. All the reports and data are submitted by one party, the commission receiving no evidence whatever from the workman showing his side of the case. A further objection offered is that, unless independent reports are required from both the employer and insurance carrier, the commission can not check the accuracy of the reports received. And in the case of self-insured employers, or when the insurance carrier transmits the accident reports of its assured, all reports are of necessity submitted by one party. The Wisconsin and Massachusetts commissions require the first report of the acci-

dent to be made by the employer, while the agreements, supplemental reports, and receipts are made by the insurance carrier. This makes possible a comparison by means of which inconsistencies and inaccuracies may be discovered and corrected. There is, however, possibility of collusion between an employer and his insurer. Instances of such collusion have been discovered in some States. However, as already stated, there is no way of verifying the reports of self-insured employers by comparison with other data.

All of the exclusive funds and all except three²⁷ of the competitive funds require the injured workman to file a claim. In Colorado, Michigan, and Pennsylvania the voluntary agreement system is used. This applies to the State funds in common with other insurance carriers. In four States²⁸ the workman's claim must be acknowledged or sworn to, while in the other nine States²⁹ such acknowledgment is not necessary. The policy of compelling workmen to have their claims sworn to is not approved even in those States in which this practice is required by law, and consequently the commissioners do not insist upon a rigid enforcement of this provision. It is maintained that this practice serves no useful purpose and places an annoying and unnecessary burden upon the injured workman.

Of the 13 commissions, 3³⁰ require the workman to make a claim, 2 of which (Maryland and New York) require the claim to be acknowledged; 7³¹ have the voluntary agreement system; while 5³² receive reports only from employers and insurance carriers. It will be noted that the New York procedure includes both claims and voluntary agreements. These reports are not essential, however, because in all compensable accident cases the injured workman is required to be present at a hearing of the commission for examination and to testify.

SUPPLEMENTAL AND FINAL REPORTS AND RECEIPTS.

The adjudication of claims for compensation by compensation commissions in industrial injury cases is based almost entirely upon written reports. In disputed or other exceptional cases the commission may make a personal investigation of the facts or set the case for a hearing at which all interested parties are requested to testify. But in the large majority of cases the commissions obtain their information from written reports submitted by the employer, insurer, physician, or injured workman. There are, however, several exceptions to this general rule. In New York every compensable accident case must be heard by the commission before an award can be made and the case closed. In Pennsylvania all of the compensable accident cases of the State fund are personally investigated by one of the fund's claim adjusters. In California practically all permanent disability cases are examined by the commission's medical advisers. Similarly in some of the other States, especially in those having exclusive State funds, many of the injured workmen are examined by the medical staff of the commission. But in from 75 to 95 per cent of

²⁷ Colorado, Michigan, and Pennsylvania.

²⁸ Maryland, Montana, New York, and Ohio.

²⁹ British Columbia, California, Idaho, Nevada, Ontario, Oregon, Utah, Washington, and West Virginia.

³⁰ Idaho, Maryland, and New York.

³¹ Colorado, Indiana, Massachusetts, Michigan, Minnesota, New York, and Pennsylvania.

³² California, Illinois, Montana, Utah, and Wisconsin.

the cases the only knowledge the commission has of the accident is obtained from written reports.

The requirements and procedure relative to first reports of the accident have already been discussed. This first report, except in minor disabilities, is usually incomplete. Obviously it can not give the extent of the disability, since this is not known when the first report is transmitted. This information is obtained from supplemental reports transmitted by the employer or physician or both. The supplemental report of the physician has to do with the physical condition of the workman, i. e., the nature of the injury, the extent of disability, and the probable date he will be able to return to work. The supplemental or final report of the employer certifies whether and when the employee returned to work and in some States the amount of compensation paid.

The foregoing reports constitute the basis upon which the commissions administer the compensation act. These reports should show whether the injury arose out of the employment, whether it was compensable, the nature of the injury, and the extent of disability, the weekly wages of the injured workman, and the amount of the benefits to which he is entitled. They do not show, however, whether these benefits have actually been received by the workman. This can be ascertained positively only by means of receipts.

In the case of the exclusive State funds and the competitive funds administered by industrial commissions, the commission itself makes the payments and consequently receipts for the employee's protection are unnecessary. In the other States most of the commissions require the employer or insurance carrier to furnish signed receipts from the injured workman showing compensation payments. Some commissions require both periodical (weekly or monthly) and final receipts, while others require final receipts only. Several commissions do not require actual receipts but in lieu thereof require that the final report of the employer or insurance carrier contain a statement of the amount of compensation paid.

The administrative problem connected with the handling of compensation receipts has become a serious one to the commissions. The mere recording and filing of these receipts takes a good deal of time. Moreover, these receipts are not always received promptly. Frequently the insurance carrier finds it impossible to obtain a receipt from the workman for payments made. It is necessary, therefore, for the commission to devise a follow-up system through which receipts may be checked. This involves a large amount of correspondence. Many commissions are also handicapped by an insufficient clerical force and as a result this part of their administrative work is neglected. Other commissions believe that the filing of receipts is not essential. They maintain that it can be safely assumed that, unless complaint is made to the contrary, the workman regularly receives the payments to which he is entitled. Such an assumption, however, is hardly justifiable. It has already been shown that employers and insurance carriers do not always make prompt payments. It is also true that many do not pay regularly. Payments are often stopped after the first payment or before the termination of the disability. The injured workman, not being familiar with his rights, frequently makes no complaint. As a result the workman, if not deprived of his

compensation benefits altogether, at least is subjected to a long and unjustifiable delay. Experience in workmen's compensation administration has demonstrated that it is unsafe to assume (1) that employers and insurance carriers can be depended upon to meet their compensation obligations promptly without strict supervision by the commission, and (2) that the injured workmen are familiar with their rights and will make immediate complaint to the commission if they are not receiving the benefits to which they are entitled under the law. Receipts or data of some sort are necessary to insure certainty that the workman has received his compensation, and that he has not suffered unnecessary delay. But, as already noted, receipts can not always be obtained from the injured by the insurance carrier. Furthermore, to require a formal receipt for every payment made not only adds greatly to the administrative work but clutters up the files of the commission. As a satisfactory compromise it has been suggested that from each self-insured employer and insurance carrier a monthly statement be required showing the date, amount, and check number of each payment. To be sure, such a statement is not an absolute guaranty that the injured workman has actually received the benefits stated, but employers or insurers will hesitate to make a false statement in writing, especially if a heavy penalty is provided. Such a plan would relieve the insurance carrier of the necessity of obtaining receipts, would lessen the administrative work of the commission, and would insure reasonable certainty that the payments specified had actually been made.

NUMBERING, INDEXING, AND FILING.

Efficiency in the handling of accident reports and compensation claims depends largely upon the administrative methods employed, particularly the system of indexing, numbering, and filing. No efficient follow-up work can be done with an inadequate or slipshod filing system. The claim department of the commission should know whether and when the required reports have been received, whether the facts have been reported accurately, and whether the beneficiaries have received their compensation promptly. This data can not be had without proper records and follow-up methods. A detailed description of the claim procedure methods is not here attempted. Such detailed accounts may be found in the account of the administrative procedure of the various States (pages 88 to 194).

Accidents may be indexed by name of employee, by name of employer, or by accident number. Some States use the first method, some the second, and some have adopted two or all three methods.

EMPLOYEE'S INDEX.

All of the 16 State funds keep an index of accidents by name of employee arranged in alphabetical order. Eleven³³ funds keep these records on cards, whereas the other 5³⁴ keep them in books prepared for the purpose. Of the 13 commissions 10³⁵ keep an employee's

³³ California, Colorado, Idaho, Maryland, Montana, Nevada, New York, Oregon, Pennsylvania, Utah, and West Virginia.

³⁴ British Columbia, Michigan, Ohio, Ontario, and Washington.

³⁵ California, Colorado, Idaho, Maryland, Massachusetts, Michigan, Montana, New York, Utah, and Wisconsin.

index record, all but New York keeping such records on cards. However, 3 of these commissions (California, Michigan, and New York) keep no index record of noncompensable accidents, while 3³⁶ commissions keep no index of accidents at all by name of employee. The employee's index record usually contains the name of employee and employer, the date and number of the accident, and sometimes the nature of the injury. The chief purpose of an employee's index is to enable the commission readily to locate an accident report where only the workman's name is known, to prevent duplication and fraud in claims, and to have an accident record of each injured workman. There is a difference of opinion as to whether the card index or book system is the better method. Most of the States seem to prefer the card system. However, British Columbia changed from the card to the book system. The board maintains that the card method involves more work and that the cards are frequently misplaced in the files and therefore lost; whereas the book method insures greater accuracy and accessibility. Oregon, on the other hand, changed from the book to the card system because the latter was found to be more satisfactory.

EMPLOYER'S INDEX.

Of the 16 State funds, 12³⁷ keep a claim record of each accident by the name or number of the employer. Four funds³⁸ keep no record by employers in the claim department, but in most of these the accident experience record of each employer is kept in the actuarial department. Of the 13 commissions 11³⁹ keep an accident record by name or number of the employer while 2⁴⁰ commissions do not.

NUMERICAL INDEX.

In addition to the employee's and employer's indexes some States also keep a numerical index, in which the accidents are recorded in numerical order by accident or claim number. Ten funds⁴¹ and seven commissions⁴² maintain such numerical indexes.

NUMBERING OF ACCIDENTS AND CLAIMS.

It is essential that the various accident reports be readily accessible when needed. This requires that they be filed in some methodical order. The customary practice is to place all the papers connected with an accident claim in one folder, which is called the "file," "folder," "jacket," "case," or "claim." This folder usually contains the first reports of the employer, physician, and workman, supplemental reports, agreements, receipts, and correspondence. Each folder is given a number which is identical with that assigned to the first report of the accident. In fact all papers in the case bear this number. These numbers run consecutively, and the folders are filed

³⁶ Illinois, Indiana, and Pennsylvania.

³⁷ British Columbia, California, Colorado, Maryland, Nevada, New York, Ontario, Oregon, Pennsylvania, Utah, Washington, and West Virginia.

³⁸ Idaho, Montana, Michigan, and Ohio.

³⁹ Colorado, Idaho, Illinois, Indiana, Massachusetts, Michigan, Montana, New York, Pennsylvania, Utah, and Wisconsin.

⁴⁰ California and Maryland.

⁴¹ California, Colorado, Maryland, Michigan, Montana, Nevada, Ohio, Ontario, Washington, and West Virginia.

⁴² Colorado, Idaho, Indiana, Maryland, Michigan, Montana, and New York.

in numerical order. This is the usual practice, although there are several exceptions which are noted hereafter. When a given case is desired the number of the folder containing the data is obtained from the employee's or employer's index record.

With the exception of West Virginia, all of the State funds number their accidents in one consecutive series and file them in numerical order. In British Columbia, however, the noncompensable accidents (those under three days and involving no medical costs) are filed in alphabetical order by name of workman, each month's accidents being kept separate. West Virginia has a unique system of accident designation. A basic number is given to all accidents occurring on a given date, this number being the number of days which have elapsed since the act went into effect. Each accident is then given a secondary number, numbered consecutively in the order in which it is received by the commission.

For example, the number 2206-83 means that the accident occurred on the 2,206th day after the act went into effect and that of the accidents which occurred on this date, it was the 83d reported to the commission. Under this system all of the accidents will automatically be filed in chronological order and each number will show the date of the accident and the promptness with which it was reported.

The practices among the commissions show greater variation than the funds. Eight ⁴³ of the 13 commissions number their accidents in a consecutive numerical series. Of these, Colorado has separate series for accidents and claims, which are kept in separate files. Indiana has three separate series, one each for accidents, agreements, and claims (adjudicated cases). Maryland has a separate series of numbers for employers' reports, physicians' reports, and workmen's claims, each type of report being kept in a separate file. Michigan numbers compensable accidents only, the noncompensable accidents of each month being filed in alphabetical order by name of employer. Montana has a separate numerical series for each insurance plan—i. e., all State fund accidents are in one series, all self-insurers in another, and all insured employers in a third. Pennsylvania numbers all accidents in one series, but maintains separate files for (1) non-compensable accidents, (2) deaths, (3) permanent disabilities, and (4) temporary disabilities.

The other five ⁴⁴ commissions have not adopted the consecutive numerical system of notation. California does not number its accidents at all, the reports being filed in alphabetical order by name of employer.

In Illinois each employer reporting accidents is given a number. This number is assigned to every accident reported by said employer, and the reports are filed under the employer's number in alphabetical order by name of employee. Each employer has two files, one for open cases and one for closed cases.

In New York for purposes of compensation administration, the State is divided into five districts, viz., New York, Albany, Syracuse, Rochester, and Buffalo. The accidents received in the New York City district are divided among groups or units, each unit having supervision over the accidents of claimants whose names begin with

⁴³ Colorado, Idaho, Indiana, Maryland, Massachusetts, Michigan, Montana, and Pennsylvania.

⁴⁴ California, Illinois, New York, Utah, and Wisconsin.

certain letters of the alphabet. For example, the accidents of all injured employees whose names begin with E, F, and G are handled by one unit. The accident reports are then separated by each unit into two groups, (1) compensable and (2) noncompensable. The noncompensable accidents are not numbered, each month's accidents being filed in alphabetical order by name of employee. The compensable accidents are numbered, each number designating the district, the year, the unit, and the number of the accident received by that unit during the year. For example, the number 1-9-3-3604 indicates the following facts: "1" indicates the district of the State (in this case New York City); "9" indicates year (1919); "3" indicates the unit (E F G); and "3604" indicates the number of the accident. In other words, it is the 3,604th accident received by unit 3 in the New York City district during the year 1919.

In Utah the insurance carrier is the basis of notation. Each insurer is given a number, the State fund being number 1. The employers insured by each carrier are arranged in alphabetical order and are numbered A1, A2, B1, B2, etc. Each employer's accidents are numbered consecutively. For example, an accident bearing the number 1M5-27 means that it is a State fund case, that the employer's name begins with M, being the fifth employer in that alphabet, and that it is the employer's twenty-seventh accident.

In Wisconsin the accident reports are first filed in alphabetical order by name of employer. Each employer's accidents are numbered consecutively and filed in numerical order and under the employer's name.

Which of the foregoing methods of numbering and filing accident reports is the most efficient is difficult to determine. The type of system most suitable in a given State would depend somewhat upon the functions of the commission and upon the number of accidents handled. The method found satisfactory in Nevada would not necessarily be suited for New York. Among the 16 funds and 13 commissions, three general types of accident designation may be distinguished. The merits and demerits of each type may be briefly summarized as follows:

1. The consecutive numerical system, in which all accidents are numbered in one consecutive series. A large majority of the States have adopted the numerical system. The advantage of this method lies in its simplicity and facility in filing. Its chief disadvantage lies in the lack of grouping or classification of accidents by employer or insurance carrier. Each employer's accident reports are widely scattered throughout the files.

2. The Wisconsin system, in which each employer's accidents are kept together, the employers being arranged either in alphabetical or numerical order, in the latter case each employer being given a number. Under this system each employer is treated as a unit, the chief advantage being that the complete accident record of every employer under the accident act is immediately available.

3. The West Virginia system, in which all the accidents of a given date form the unit. Each day is numbered consecutively and all the accidents sustained on this day are filed together in the order in which they are received. The number of each accident will therefore show the date on which it occurred and the promptness with

which it is reported. The disadvantage of this method of designation is the same as the consecutive numerical system, i. e., each employer's accident reports are scattered promiscuously throughout the files.

SUMMARY CONCLUSION.

Four systems of claim procedure are in use in the various compensation States. These are: (1) Claim system, (2) voluntary-agreement or direct-settlement system, (3) adjudication of cases on basis of employer's and insurer's reports only, and (4) hearing system.

An accurate appraisal of the foregoing systems is difficult to make. A true evaluation can be determined only from a comparison of results. One must know whether all compensable accidents have been reported, whether the required data have been reported correctly, how promptly the reports are received, and whether and when compensation payments are made. These facts must be known before the merits of the various systems of claim procedure can be determined. However, methods of claim procedure are not the only factors entering into the results. The policy of the commission, the adequacy and efficiency of the administrative personnel, the number of accidents handled, the size and area of the State, the character of the industries, the type of insurance, etc., are all contributory factors.

The following is a brief summarization of the four methods.

(1) *The claim system* is used in nearly all of the State funds and by two or three commissions. Under this system reports of the accident are required from the employer, the attending physician, and the injured workman. The claim is adjudicated on the basis of these reports. The chief merit of this method is that all parties interested, and particularly the workman, may present their side of the case. Its principal drawback is delay. Workmen are not prompt in filing their claims, which causes delay in making compensation payments, since customarily no payment is made until the workman's claim is received.

(2) *Agreement systems* are found in a majority of the commissions and in several funds. Under this system the employer or insurer and the injured workman sign an agreement which sets forth the amount of compensation receivable, together with the main facts connected with the injury. No other report is required from the workman although some commissions require reports from the attending physician. These agreements do not become valid, however, until approved by the commission. The execution of the agreement is usually attested by supplemental reports and receipts submitted to the commission by the employer or insurer. The chief criticism directed against the agreement system is that it unnecessarily delays the payment of compensation. Agreements are not always promptly submitted by the insurance carriers. Moreover, it is the policy of some carriers not to begin payments until notice of approval has been sent them by the commission. The chief merit of the agreement is that the employer or insurer thereby acknowledges his liability and agrees to make the payments specified. Also the signature of the workman is *prima facie* evidence that the facts as stated are correct. However, frequently the employee is not familiar with his rights under the law, and in the case of self-insured employers would be disinclined to

refuse to sign the agreement because of fear of losing his job. Furthermore, if both the first report and the agreement are submitted by the same party the commission is in no position to verify one report by comparing it with the other.

(3) *Adjudication of claims on the basis of employer's and insurer's reports only* is found in several States. Under this system the commission receives no report from the injured workman. Only the employer or insurer, and in some States the attending physician, are required to make a report to the commission. As in the case of the agreement system, the execution of the compensation provision is attested by supplemental reports and receipts. The merits of this system lie in its simplicity. Compensation payments may be made immediately and need not be delayed until a formal claim or agreement has been submitted to and approved by the commission. The principal defect of this system is that the whole case is settled on an ex parte basis. The injured workman is not given an opportunity to present his side of the case. If the employer and insurance carrier submit independent reports the commission, of course, can check one report against the other. But even this is not possible in case of self-insured employers or when the insurance carrier is permitted to transmit the accident report of his assured. In the latter case the commission has no way of determining whether the facts as submitted are correct unless the employee makes a complaint, and this he frequently fails or refuses to do.

(4) *The hearing system*.—In the exclusive-fund States formal hearings are practically nonexistent. In the other States, New York excepted, hearings are held only in disputed cases. But in New York the commission holds a formal hearing on every compensable accident case. The one great advantage claimed for this system is that the commission actually sees the injured workman and knows the exact nature of the injury and extent of disability; consequently, the possibility of underpayment is greatly reduced. The most important criticism made against this system is the long delay before the case is placed upon the calendar for a hearing. The average interval between the date of the accident and the date of the first hearing was found to be 72 days. Therefore, unless insurance carriers begin payments before the hearing is held, which some of them do not, the injured workman must wait over 10 weeks before he receives his first payment. Another weakness mentioned is the great amount of time consumed. In most of these hearings the claimant and frequently friends and relatives of the claimant appear in person. Frequently such attendance is accompanied by considerable expense and loss of wages inasmuch as many claimants are working at the time of the hearing. They have to lose a day's wage or part of a day's wage to attend the hearing, often only to be told that no more compensation is due or that the case has been disallowed for one reason or another. Moreover, hearings are often postponed because of the failure of witnesses to attend. Many times hearings are postponed two or three or even more times because it has been impossible to secure the attendance of the necessary physician or because the insurance company's adjuster or doctor was on his vacation or otherwise occupied.

Table 15 indicates the promptness of certain specified States in accident reporting and claim procedure. It shows how promptly the several kinds of reports are received and how soon after the receipt of these reports the first payment is made or the claim is adjudicated

50 COMPARISON OF WORKMEN'S COMPENSATION INSURANCE.

TABLE 15.—PROMPTNESS WITH WHICH REPORTS OF ACCIDENT ARE RECEIVED OR CLAIMS PAID IN SPECIFIED STATES.

State.	Average interval (median) between—				
	Date of accident and receipt of—			Date of accident and first payment.	Receipt of latest report and first payment.
	Employer's report.	Physician's report.	Workman's claim.		
	Days.	Days.	Days.	Days.	Days.
Massachusetts.....	4			1 29	3 13
California fund.....	5	8	20	26	2
West Virginia.....	7	36	46	59	8
Michigan fund.....	8			48 and 84	
Utah fund.....	8	14	30	38	2
Idaho commission.....	9				
Oregon.....	9	7	17	28	5
Maryland commission.....	9	27	26	4 38	5 10
Indiana.....	12				
Washington.....	13			49	24
New York commission, New York City.....	13		35	6 72	7 32
British Columbia.....	13	7	18	41	12
Ohio.....	14		39	55	7
California commission.....	34	6			
Nevada.....			22	36	9

- ¹ Interval between the date of accident and date agreement received.
- ² Interval between date agreement received and date agreement approved.
- ³ Two averages based upon two sets of data.
- ⁴ Interval between date of accident and date of commission's award.
- ⁵ Interval between receipt of latest report and date of commission's award.
- ⁶ Interval between date of accident and date of hearing.
- ⁷ Interval between receipt of claim and date of first hearing.
- ⁸ Approximately.
- ⁹ Interval between receipt of workman's claim and date of first payment.

Certain questions relating to possible improvements in methods of procedure have arisen in connection with the experience of the different funds and commissions. No special investigation has been made along this line, but in view of the general interest in the subject the following points are submitted as summarizing the more efficient and adequate methods found in the several States.

1. What accidents should be reported?—All accidents which cause time loss or require medical aid.

2. What accidents should be tabulated?—All "tabulatable" accidents, i. e., those causing time loss other than the day on which the injury occurred, if the commission has a sufficient clerical force to do the work properly; otherwise, compensable accidents only. In any case, a separate tabulation of the compensable and noncompensable accidents. As to method, the recommendations of the committee on statistics of the International Association of Industrial Accident Boards and Commissions should be followed as closely as possible.

3. What data should be called for on the employer's first report of accident?—The questions on the employer's first report of accident to be limited to data which are (1) important and necessary, and (2) which are obtainable.

4. How soon should accidents be reported?—The more promptly an accident is reported the sooner positive action can be taken by the claim department. Usually, however, no action is possible until the commission knows whether the injury is a compensable one. In case of serious accidents this information is known at the time of the injury and such accidents should be reported immediately. The compensability of minor accidents, however, is not known until

the expiration of the waiting period. If reported before that time, a supplemental report must also be made in each case showing when the employee returned to work. It would seem sufficient and desirable, therefore, assuming the statutory waiting period to be reasonably short, to report noncompensable minor accidents at the termination of disability and compensable minor accidents immediately after the expiration of the waiting period. This practice is not suggested for State funds. Where medical service must be furnished by the commission it is desirable that accidents be reported as soon as possible.

5. **What reports should be required?**—(a) *Employer's report*.—An employer's report in every accident case, to be transmitted to the commission directly by the employer and not through the insurance carrier or any other intermediary.

(b) *Physician's report*.—A physician's report, at least in all permanent disability and in all serious temporary disability cases.

(c) *Employee's report*.—It is extremely desirable that the commission receive some statement from the injured workman himself in order that the facts as reported by the employer, insurer, or physician may be verified. In the case of State funds, this is effected through the workman's claim. The voluntary agreement system also answers the purpose to a limited extent. The merits and demerits of these systems have already been discussed. If neither method is adopted, the commission, before final approval of the settlement of the claim, should request the injured workman to verify the essential facts as reported by the employer.

(d) *Physician's final report*.—In all cases of permanent disability and serious temporary disability a final report from the attending physician, stating the nature of the injury, degree of impairment, and the date the injured employee is able to return to work.

(e) *Employer's final report*.—A final report from the employer stating when the employee actually returned to work, and in case of permanent disability, his subsequent occupation and wages.

(f) *Insurance carrier's final report*.—A final report from the insurance carrier and the self-insured employer, stating the amount of compensation and medical benefits paid in each case.

(g) *Receipts*.—A monthly statement from the insurance carrier and the self-insured employer showing each compensation payment made during the month, giving the amount, date, and check number of each payment.

6. **Follow-up system**.—The several methods of indexing, numbering, and filing reports have been discussed in the preceding pages in which the advantages and disadvantages of each system were pointed out. Each commission should have an adequate follow-up system by means of which it may keep itself constantly informed of the history of each accident.

SOLVENCY OF STATE FUNDS.

The data herewith presented relative to the solvency of State funds, including premium income, reserves, surplus, dividends, etc., were not obtained through an actuarial audit of the several funds but were furnished the bureau by the several commissions or were taken from their financial statements as found in their published

reports. The actuarial solvency of a State fund depends, first, upon adequate insurance rates and, second, upon sufficient reserves. The policy of the various State funds differs materially as regards rates, reserves, and dividends. In some of the States (British Columbia, Montana, Ontario, and Washington) it is the policy of the commission to charge rates sufficient only to meet the costs of their current accidents, including, however, reserves for deferred payments in fatal and permanent disability cases. The commissions in these States do not aim to carry a large surplus. If the rates charged produce a surplus beyond the requirements of the accidents occurring during the year, the rates or assessments are reduced accordingly. On the other hand, if the rates are found to be inadequate the assessments are increased the following year.

A majority of the funds, however, have adopted the policy of charging rates sufficient not only to meet the incurred cost of all accidents but also to build up an adequate catastrophe reserve and surplus. When this surplus becomes more than sufficient to meet all outstanding obligations the excess over and above the amount necessary to maintain the solvency of the fund and the stability of the rates is returned to the employers as dividends.

CLASSIFICATIONS.

In 5.⁴⁵ States the industrial classifications are formulated in the compensation law. The commissions, however, have authority to modify and increase or decrease these classifications, which has been done in all of these States.

In the other States the commissions have either adopted the manual classifications of the National Workmen's Compensation Service Bureau in whole or in part or have built up classifications of their own. The number of classifications vary considerably among the several States, ranging from 7 classes and 46 subclasses in Nevada to several hundred in Ohio and New York.

RATES.

In three⁴⁶ States the basic rates for the various classifications are enumerated in the compensation act. These rates, however, may be modified either by changing the classifications or by changing the number of assessments. The basic rates are supposed to be sufficient to meet the losses of the respective classifications. As a rule, however, basic rates have been found to be more than adequate to meet the compensation losses. It is the practice, therefore, in a number of States⁴⁷ to levy monthly or quarterly assessments just sufficient to meet the losses as they occur. As a result, in most of the classifications the full basic rates are seldom charged. The number of assessments is determined by the condition of the fund of each class. In Washington the commission has gone to the extreme of making no assessments in successive years in several classifications because, since there had been no severe losses in those classes, each class still showed a sufficient surplus. Some of the classes for which only a few assessments have been made include such extremely

⁴⁵ British Columbia, Montana, Ontario, Oregon, and Washington.

⁴⁶ Montana, Oregon, and Washington.

⁴⁷ British Columbia, Montana, Ontario, and Washington.

hazardous classifications as powder and fireworks manufacturing. Catastrophe losses in these classifications occur infrequently, but when they do occur the losses are severe. Instead of charging a rate which will reflect the natural hazard of this classification, the commission collects annually only a sufficient amount to cover the losses during the year. When, therefore, a catastrophe does occur the fund for this class will be inadequate to meet the losses and consequently the fund of this class will be temporarily insolvent and its losses must be borne by the other classes.

In the other States the rates charged by the fund are intended to reflect the hazard of the classification in the long run. No assessments are made by these State funds. In all of the competitive State funds, except California, the rates charged are lower than those charged by private stock companies. These rates range from 10 per cent less in Colorado and Pennsylvania to 15 per cent less in New York; 15 to 25 per cent less in Idaho; 20 per cent less in Utah; and 25 to 30 per cent less in Michigan. The rates in Maryland and Montana are also somewhat less than those of the stock companies. The California fund charges the same rates as those of private companies.

In the exclusive State funds the relationship between the rates charged and those of private insurance carriers is not known inasmuch as there exists no basis of comparison. Furthermore, because of the many complex factors involved, as already explained, it is practically impossible to compare the rates of one State with those of another.

In most of the States the rates charged by the State funds are not subject to supervision and regulation by State insurance departments. It is maintained that because the right of the funds to reject undesirable risks is circumscribed by law, they should have greater freedom than private insurance companies with respect to rates. It is further contended that the power of supervision over rates if exercised by a hostile insurance department would hamper a State fund, if not actually put it out of business.

MERIT RATING.

All of the State funds, both exclusive and competitive, with the exception of Montana, have put into effect some form of merit rating. Idaho, Maryland, Ohio, Oregon, and West Virginia have adopted an experience rating system, whereas the other State funds have either a schedule rating system or a combination of schedule and experience rating. The general effect of merit rating has been to reduce the basic rates.

RESERVES AND SURPLUS.

The actuarial solvency of a fund means that at any given time the assets of the fund are sufficient to meet all outstanding liabilities and obligations. This would include adequate reserves covering all outstanding claims or deferred payments, unreported accidents, reopened claims, future administrative expenses, and any other contingent liability. In addition it is also desirable to have a catastrophe reserve to take care of the catastrophe hazard and an additional sur-

plus to meet exceptional and fluctuating losses. The adequacy of the reserves and surplus as shown in the financial statements of the funds depends upon whether proper actuarial methods were used in computing the reserves. The bureau, as already noted, did not make an actuarial audit of the funds, and consequently can not vouch for the accuracy and adequacy of the reserves and surpluses contained therein. Several State funds have been audited by insurance departments or by independent actuaries and accountants, and in each case the funds were shown to have been exceptionally sound financially. It would be desirable to have an impartial audit made of each fund annually by some outside competent body. The New York, Ohio, Oregon, Pennsylvania, and Montana funds have recently been audited by independent actuaries. The Washington fund is examined and audited annually by the insurance department, which computes the fund's reserves. California and Utah are subject to the State reserve law (a percentage of the premiums), as are other insurance carriers. Idaho, Maryland, and North Dakota funds have engaged as consulting actuary the actuary of the Ohio State fund, who determines the rates and computes the reserves.

CLAIM RESERVES.

In California and Utah the reserves for claims are determined in accordance with the State insurance laws. In California 70 per cent of the premiums are required to be set aside for reserves, while in Utah the fund sets aside 85 per cent of its premium income as reserves. In the other State funds the claim reserves are computed upon the case system, i. e., each claim is valued at the time of the award and a reserve covering the probable incurred cost of each claim is set aside. In death cases it is the general practice to compute the reserve in accordance with the experience of the American Mortality Table or some modification thereof. Some funds take into account the remarriage factor in computing death reserves, while others do not, but turn back into the accident fund the unused reserve at the time of the remarriage of the widow. The West Virginia fund, in case of death or permanent total disability, sets aside as a reserve a flat amount in each case irrespective of the number of dependents or liability involved in that particular case.

In permanent total disability cases it is the usual practice to compute the reserves in accordance with the experience of the American Mortality Table, except that West Virginia, as already noted, sets aside a flat amount.

In permanent partial disability cases it is the usual practice to set aside the total award as a reserve, except that in some States the mortality factor is taken into account.

As regards temporary disabilities, two methods have been adopted for the computation of reserves: (1) The reserve is based upon an estimate of the probable disability in such claims as are still open at the end of the fiscal year, or at the time that the financial statement is made; this probable disability is usually estimated by the claims adjuster, the estimate being based upon the opinion of the medical adviser; (2) the reserves are computed in accordance with a table of values which shows the probable disability of temporary disability cases. It has been found from experience that the future disability

of injuries of a temporary or indeterminate nature varies directly with the past disability of such cases. In other words, the longer the man is disabled the less chance he has of recovering, and injuries which have disabled a workman for two years will probably result in permanent total disability.

CATASTROPHE RESERVES.

The catastrophe reserve has a twofold purpose: (1) To protect the solvency of the fund against exceptional catastrophe losses; and (2) to equalize the rates between the classifications. Generally speaking, a catastrophe is a sudden exceptional and unforeseen disaster which can not be anticipated and is liable to strike anywhere, although some classifications, such as coal mining and powder manufacturing, are naturally more subject to a catastrophe hazard than others. The theory is that the losses due to such a disaster should be borne, either in whole or in part, by industry as a whole and not by the classification in which the catastrophe happens to occur.

Most of the compensation laws provide that the State funds shall set aside 10 per cent of their annual premium income as a catastrophe reserve until such reserve shall equal \$100,000 and 5 per cent thereafter until in the judgment of the fund the reserve is sufficient to cover the catastrophe hazard of all the subscribers to the fund and to guarantee the solvency of the fund. Some of the funds make no distinction between the catastrophe surplus and the general surplus of the fund. The Washington fund does not provide a catastrophe reserve.

Table 16 (p. 56) shows the catastrophe reserve and total surplus of each of the funds. An examination of this table shows that many of the funds already have more than an adequate surplus, while others are rapidly approaching the adequacy stage.

DIVIDENDS.

The policy of the State funds as regards dividends differs. In some of the funds (British Columbia, Ontario, Montana, Washington, and Utah) it is the policy to collect only sufficient premiums to meet the cost of the accidents as they occur, and consequently no dividends have been declared by these funds. Most of the other funds have declared annual dividends ranging from 5 to 46 per cent. Many of the funds, despite the fact that the rates charged have been considerably lower than those of private stock companies, have declared annual dividends in addition to having accumulated a comfortable surplus.

COLLECTION OF PREMIUMS.

Some of the State funds have experienced difficulties in collecting premiums and are behind in their premium collections. This has been due in most part to an insufficient clerical force. In several of the States, however, the insurance policies are automatically canceled if the premiums are not paid within a specified period. Practically all of the State funds have a certain amount of uncollectible premiums on their books, but such uncollectible debts probably do not exceed those of the ordinary private business enterprise.

AUDITING PAY ROLLS.

Most of the State funds have an insufficient force of pay-roll auditors, and consequently many risks, especially the minor ones, are never audited, while others are audited irregularly. Moreover, it is the policy of some of the State funds (Washington, for example) not to audit employers' pay rolls except in special cases or upon request. The inadequate auditing of pay rolls is a serious problem to the State funds, and thousands of dollars of premiums are lost because these pay rolls are not audited regularly, if at all.

EXPENSES, PREMIUM INCOME, SURPLUS, AND DIVIDENDS OF STATE FUNDS.

Table 16 shows the annual administrative expenses, premium income, surplus, and dividends of State funds. The expenses and premiums are all for the year 1920, except those for West Virginia, which are for 1919. The surplus and dividends are as of 1920, except for the following, which are as of 1919: West Virginia and Montana. None of these data was obtained as a result of an actuarial audit, but was furnished by the funds or taken from their published financial statements. In some of the States the fund is located in the State Capitol, and a fair rental value must be added to the reported expenses to make them comparable with the expenses of funds located in rented buildings (see Table 7, p. 24).

TABLE 16.—EXPENSES, PREMIUM INCOME, SURPLUS, AND DIVIDENDS OF STATE FUNDS.

State.	Annual administrative expenses. ¹	Annual premium income.	Surplus.		Total dividends declared.	Reinsurance.	Expense ratio. ¹
			Catastrophe surplus.	Total surplus, including catastrophe.			
Exclusive funds:							
British Columbia.....	\$81,806	\$1,766,879	\$49,431	\$49,431	None.	No....	4.6
Nevada.....	34,061	338,184	86,740	198,686	\$131,671	No....	10.1
Ohio.....	443,148	16,005,454	2,208,625	3,742,764	3,350,000	No....	2.8
Ontario.....	207,052	5,475,273	151,639	\$151,639	None.	No....	3.8
Oregon.....	202,208	\$2,931,770	95,192	648,261	506,616	No....	6.9
Washington.....	203,595	2,590,758	(*)	(*)	None.	No....	7.9
West Virginia.....	80,423	2,410,238	330,894	539,626	None.	No....	3.3
Total.....	1,252,293	31,518,556	2,922,521	5,530,407	3,988,287	.....	4.0
Competitive funds:							
California.....	511,357	4,360,397		\$1,997,660	2,060,291	No....	11.7
Colorado.....	\$17,800	460,116		262,383	146,447	No....	3.9
Idaho.....	34,392	354,196	86,294	246,400	None.	Yes....	9.7
Maryland.....	26,000	211,682	68,775	352,465	25% in 1920	Yes....	12.3
Michigan.....	42,986	402,685	148,623	148,623	10% yearly	No....	10.7
Montana.....	\$9,000	225,508	254,026	254,026	None.	No....	4.0
New York.....	385,665	3,573,047	802,424	1,608,063	1,946,516	No....	10.8
Pennsylvania.....	336,103	3,186,668	509,340	\$3,266,145	389,537	Yes....	10.5
Utah.....	17,412	209,010		\$134,407	32,815	No....	8.3
Total.....	1,380,715	12,983,309	1,869,482	8,270,172	4,575,606		10.6
Grand total.....	2,633,008	44,501,865	4,792,003	13,800,579	8,563,893		5.9

¹ Actual expenses. No account has been taken of differences in service rendered or of the fact that in some States rent is furnished by State.

² Includes interest.

³ It is the policy of the fund not to maintain a general surplus over and above the present and future liabilities on account of past accidents.

⁴ Includes employees' contributions amounting to \$198,689.

⁵ Includes \$100,000 originally appropriated.

⁶ Approximately.

⁷ Includes \$500,000 originally appropriated for expenses.

⁸ Includes \$40,000 originally appropriated for expenses.

ADMINISTRATION OF MEDICAL SERVICE.

It is the duty of industrial commissions not only to supervise the payment of compensation but also to see that proper medical and hospital service is furnished to injured employees under the compensation act. The State funds, however, both exclusive and competitive, must actually furnish medical and hospital service to the injured employee of the employer insured in the fund. An exception to this may be found in the far western States, where the contract hospital system prevails. Under such a system the employer enters into a contract with a commercial hospital whereby the latter agrees to furnish proper medical and hospital service to the employer's workmen. Under the contract hospital system the employer receives a reduction on his premium rate and the fund is relieved from the duty of providing the medical and hospital service.

In New York the medical treatment for a large proportion of the State fund's New York City cases is handled by a special private medical service. This service has a central office in New York, conducts a physiotherapy hospital, and has about 60 doctors in Greater New York. In case of an accident the workman is referred to the nearest doctor for attention. A fund investigator investigates the case. The injured workman is called in and examined by the medical adviser of the fund. He is then referred to the service or to other physicians or specialists. The service makes periodic reports to the fund as to the progress of the case.

The Industrial Accident Commission of Oregon has established two physiotherapy laboratories, one located at Salem and the other at Portland. Each of these laboratories is in charge of a skilled surgeon and several nurses who administer physiotherapy treatments to the claimants.

Inasmuch as many of the injuries sustained by workmen under compensation acts involve difficult medical questions, a large majority of the funds and some commissions have found it desirable to employ medical advisers. All of the exclusive funds have such medical advisers, except that in Nevada, North Dakota, Oregon, and West Virginia the adviser devotes only part of his time to the work of the commission. Of the nine competitive funds, five⁴⁸ have regular salaried medical advisers, while four⁴⁹ have not. Of the 13 industrial commissions here considered six⁵⁰ have medical advisers while seven have not.

It is the duty of the medical adviser to examine claimants, make medical reports on cases, select impartial physicians for examination of claimants, pass upon the reasonableness of medical and hospital fees, and particularly to rate permanent disabilities.

ACCIDENT AND COMPENSATION STATISTICS.^a

For a number of years the United States Bureau of Labor Statistics and the committee on statistics of the International Associa-

⁴⁸ California, Idaho (part time), Maryland (part time), New York, and Utah (part time).

⁴⁹ Colorado, Michigan, Montana, and Pennsylvania.

⁵⁰ California, Illinois, Maryland (part time), Massachusetts, New York, and Pennsylvania have medical advisers; Colorado, Idaho, Indiana, Michigan, Montana, Utah, and Wisconsin have not.

^a This section was prepared by the author for the Casualty Actuarial Society and published in vol. 7, part 2, of the proceedings of the society.

tion of Industrial Accident Boards and Commissions have endeavored to promote the standardization of industrial accident and compensation statistics in the several States. With this end in view the committee has formulated standards in accident reporting, classification of industries and causes, and methods of presentation. Though every year finds the statistical reports of industrial commissions more accurate and reliable there is still need (1) for greater completeness and adequacy of data and (2) for harmony in methods of presentation.

No State commission has a record of all the industrial accidents occurring within the State. The nearest approach to complete reporting perhaps is found in California and Massachusetts. In most of the States only employers under the compensation act are required to report accidents. Some States require all accidents to be reported, some require only tabulatable accidents,⁵¹ and others require only compensable accidents. Again, in some States the published statistics include those accidents the reports of which were received during a given period irrespective of the date of their occurrence; in some they include the accidents occurring within the period covered irrespective of when they were reported; while in other States they include only cases which were closed or settled or adjudicated during the period regardless of when the accident occurred or when the reports were received. Several States attempt to give the total compensation and medical costs incurred within the year, but most of the commissions, in so far as they give any data as to cost at all, give only the compensation losses paid during the year or the amount awarded on closed cases, and practically none gives the total medical costs either paid or incurred. So much for the data. As regards methods of presentation similar lack of uniformity exists. The various and varying classifications of industries and causes of accidents in the several States have made futile any attempt at comparison. As a consequence most of the State accident statistics have been neither reliable nor comparable. As a matter of fact, most of the industrial commissions, immersed in details of administrative and judicial procedure, have had little time for statistics. The increasing demand, however, for exact information as to the prevalence, cause, and cost of industrial accidents in the United States has induced the commissions to devote more attention to statistical work.

The fact that the accident reporting provisions of the compensation acts in many States apply to all employers, whereas the compensation provisions do not, makes the compilation of complete and comparable accident statistics difficult. The California commission, in presenting cost data, uses only compensable injuries, but in its cause and industry classifications all tabulatable injuries are included.

In the following pages an analysis and evaluation of the accident statistics as published in a number of recent State compensation commission reports are attempted. In order to obtain a clearer conception of the adequacy or inadequacy of these statistics there is here

⁵¹ A tabulatable accident is one in which the disability extends beyond the day, turn, or shift on which the accident occurred.

presented what may be considered the minimum requirements in the way of statistical presentation of accident and compensation data:

1. All accident statistics should be given by year of occurrence, preferably the calendar year; i. e., the number, severity, and cost of all accidents which occurred within a given period should be treated as a unit. This is essential if accurate comparisons are to be made. If the cases closed, adjudicated, or reported within the year are taken as the unit, as they are in most States, it will impair the comparison of one year with another and will make it impossible to compute reliable accident rates.

2. The total annual number of industrial accidents in the State classified by extent of disability. By extent of disability is meant the number of deaths, with and without dependents, the number of permanent total disabilities, of permanent partial disabilities, separated into dismemberments and loss of use, and of temporary total disabilities classified by period of disability.

3. The total incurred compensation and medical costs classified by extent of disability.

4. The annual number of accidents in each industry classified by extent of disability.

5. The classification of accidents by cause and extent of disability.

The foregoing requirements may be regarded as the minimum. In addition it is desirable that the medical and compensation costs for each industry be shown. It is also essential to show accident frequency and severity rates by industry in order (1) to ascertain the relative hazards in the various industries, and (2) to show the trend of the hazard. In other words, it is extremely desirable to measure and evaluate the effect of workmen's compensation laws and the efficacy of safety work in preventing accidents.

To what extent the State accident reports measure up to the above requirements may be seen from the following analyses. An analysis of all the States has not been attempted. Rather, typical States are taken, ranging from Colorado, which has practically no accident statistics, to California, Massachusetts, and Nevada, whose statistical tabulations probably approximate more closely to the recommendations of the committee on statistics than those of any other States. Unfortunately two of the largest industrial States (New York and Ohio) have published no accident statistics whatever for a number of years.

COLORADO.

The latest report of the Colorado Industrial Commission devotes 111 pages to workmen's compensation, but 88 of these pages are taken up with a description of the compensation awards, which contains the claim number, the name of the parties in interest, the disability involved, and the amount of the award. The report contains a single table showing the total number of accidents received, the number of claims, awards, compensation agreements, types of injuries, average weekly wages, etc. There is no table showing the total number of accidents classified by extent of disability or the cost of such accidents; neither is there any table showing the classification of accidents by industry or cause.

INDIANA.

The report of the Indiana Industrial Board contains numerous detailed tables classifying accidents by industry and cause, but owing to the unsatisfactory character of the classifications practically no use can be made of these tables. The so-called industry classification embraces 273 separate classifications arranged in alphabetical order. Apparently no attempt has been made to separate classifications into broad industrial groups, nor is it possible in many cases to determine whether the item refers to manufacturing, trade, or personal service. Industries and occupations are run together—e. g., the industry classification includes airplanes, dentists and dental supplies, dairy products, physicians, fireproof articles, hardware, newspapers, and musical instruments. It is impossible to know whether the items "airplanes" or "musical instruments" mean their manufacture, sale, or operation. Furthermore in a large number of classifications (e. g., boots and shoes and lumber) manufacturing and dealers are combined in a single classification. Again, many synonymous industries such as "iron and steel" and "steel and wire," and "newspapers" and "printing and publishing," are given as separate classifications.

The cause classification table is divided into 10 main classifications which represent the manner of occurrence rather than the cause. The item "belts" is found seven times, but no total for belts is given, nor does the table contain subtotals for any of the main classifications.

The report also contains tables showing classifications of accidents by nature and location of injury, wage, and age, but no totals are given in any of these tables. In order to obtain the number of fractures, for example, one must add all the individual items.

Another table shows the duration of disability by days, but in over 50 per cent of these accidents the period of disability is not given. This is due to the fact that the accident report is coded and punched when received, and if the disability has not terminated when the report is received the disability period is not punched. This practically means that only the short-term disability accidents are included in the classified table and the results consequently are not only inaccurate but misleading.

Both the industry and cause classifications give merely the total number of accidents for each classification. All the tables show distribution of accidents by months—a detail that is unnecessary.

The report contains no table showing the total number of accidents classified by extent of disability, nor does it contain any data as to incurred compensation and medical costs. It does show, however, the amount paid out on closed cases during the year.

WASHINGTON.

The latest report of the Washington Industrial Commission contains numerous tables showing costs and classification of accidents by industry and cause. Three financial statements are given, one each for the reserve fund, accident fund, and medical aid fund. In each statement the experience by industrial classes is given. The statement for the reserve fund shows the amount of compensation paid and reserves set up for each class, while that for the accident

fund shows the amount of claims paid and premiums received during the year. The report of the medical aid fund, showing the amount of medical benefits paid and medical premiums received, is kept separate from that of the compensation fund. None of these tables shows the amount of earned premium or incurred losses for any given period. They merely show the amount of premiums *collected* and compensation losses paid during the year.

Another series of tables shows the number of accidents and the amount of compensation incurred, classified by nature and location of the injury, but the tables do not show what period is covered. Another table classifies the total accidents by cause and industry. There is no particular value in such a classification, especially if the accidents are not classified by extent of disability. A further table shows the wage loss by industry. There is nothing to show, however, whether or not the waiting period has been included or whether the wage loss given covers temporary total accidents only or also includes permanent partial disability accidents, nor is the amount of compensation given in order that this might be compared with the wage loss.

The best table in the report shows the cost and severity of injuries by cause. This table is in two parts, part one dealing with injuries due to mechanical causes and part two dealing with injuries due to nonmechanical causes.

The Washington report does not contain the following information: (1) The total number of accidents occurring during the year classified by severity; (2) the incurred losses during the year for each industry (only the amount paid out and reserves set up on claims adjudicated during the year are given); (3) the earned premiums during the year for each industry (only the premiums collected during the year irrespective of the period for which they were earned are given, it being impossible, therefore, to correlate the earned premiums with the incurred losses); (4) classifications of accidents by cause and severity; (5) adequate headings or captions to the several tables to denote just what accidents are included and what period is covered.

OREGON.

The accident and compensation statistics contained in the latest report of the Oregon Industrial Commission are exemplary from the standpoint of method, but deficient from the standpoint of data included. A basic compensation table shows for each industrial classification the pay roll, total number of days worked, premiums received, premium rate, claims paid and awarded, administrative expenses, pure premium per \$100 pay roll, and pure premium per workday. The table is deficient in that it does not show the earned premiums or the incurred losses for a given period. It merely shows the premiums collected and the compensation losses awarded and paid during the year. As in the case of Washington, it is impossible, therefore, to correlate earned premiums with incurred losses.

The report contains a number of accident tables showing the classification of accidents by cause and extent of disability. All of these classifications, however, are based upon cases closed during the year and not upon the accidents happening during the year. It is impossible accurately to compare one year with another. The Oregon

commission is one of two commissions (that of Nevada being the other) which has computed accident frequency and severity rates for each industry classification. Unfortunately, however, these rates are based upon closed cases and consequently it is impossible to compare one year with another. Other tables show the compensation and medical costs by extent of disability; duration of temporary total disability in permanent partial disability cases; causes of accidents by extent of disability; number of remarriages of widows of those receiving fatal injuries.

WISCONSIN.

The accident and compensation statistics published by the Industrial Commission of Wisconsin, as in the case of Oregon, are excellent as regards the form and method of presentation, but they are based upon closed cases rather than upon the accidents occurring within a given period. Moreover, in Wisconsin only compensable accidents (those lasting over 7 days) are reported, the commission having no record of noncompensable accidents. In this respect Wisconsin differs from all of the other States here considered.

The basic compensation table shows the distribution of accidents by extent of disability and the compensation and medical costs for each type of injury. The medical cost, however, does not include the cost of noncompensable accidents. As already noted, these data, as well as the tables which follow, are based upon closed cases. Other tables published by the commission include the following: Classification of accidents by cause and extent of disability; classification of accidents by industry and extent of disability; classification of permanent disabilities, not dismemberments, by degree of disability, showing the number and the amount of compensation and medical aid paid in each case; number of dependents in fatal cases, and wages.

NEVADA.

The Nevada Industrial Commission was one of the first to publish accurate and useable accident and compensation statistics. It was the first State to undertake the computation of accident rates by industry. The basic compensation table shows for each industrial class and subclass the number of full-time workers, pay roll, earned premiums, incurred compensation losses in the case of death, permanent disability and temporary disability, the average compensation incurred per case, and the pure premium per \$100 of pay roll. This table, however, does not show the medical cost, that being presented in another table, because of the provision in the law which created a separate medical aid fund. Other tables show the accident frequency and severity rates by industry. These rates are stated both in terms of full-time workers and pay roll. The Nevada commission has published no classification of accidents by cause.

MASSACHUSETTS.

The Massachusetts Industrial Accident Board is one of the few compensation commissions which from the beginning have given serious consideration to the question of accident statistics. While some of the statistical tables and classifications in the earlier reports are subject to criticism the latest report follows closely the recommendations of the committee on statistics. The board itself compiles

no data as to compensation costs. It does, however, publish an annual statement, based upon returns made by insurance companies to the board, showing the amount of compensation and medical losses paid and outstanding on injuries reported during the fiscal year.

All employers in Massachusetts, whether or not under the compensation act, must report all accidents to the industrial accident board. The various tables showing classification of injuries by industry, cause, etc., therefore include all tabulatable accidents reported and are not limited to those under the compensation act. The following accident tables and classifications are given in the report: Number of accidents classified by industry and extent of disability; number of days lost on account of accidents, classified by industry and extent of disability; classification of accidents by location and nature of injury; classification by location, nature, and extent of disability; classification by cause and extent of disability; sex and age classified by type of injury; wages classified by industry; and conjugal condition and dependency in fatal cases classified by industry.

The present tables show for each industry the number of temporary total disabilities of from 1 to 3 days, 4 to 7 days, 8 to 10 days, 11 to 14 days, 2 to 4 weeks, 4 to 8 weeks, 8 to 13 weeks, 13 to 26 weeks, 26 to 52 weeks, and over 1 year. It would seem sufficient, as recommended by the committee on statistics, to reduce these 10 groups to 3, as follows: One week and under, over 1 to 2 weeks, and over 2 weeks. No particular value is gained by showing for each industry such a minute distribution of temporary disabilities. On the other hand, it would be desirable to show the distribution of temporary total disabilities *as a whole* by days up to 14 days and then by weeks up to 26 weeks. It would be of advantage also to ascertain the number of employees in each industry, in order that accurate accident frequency and severity rates may be computed.

CALIFORNIA.

The California Industrial Accident Commission, in its latest report, follows the recommendations of the committee on statistics as regards the classifications and tabulation of accidents more closely perhaps than any other State. Two tables as to compensation costs are given. One shows the amount of compensation incurred on account of compensable injuries occurring during the calendar year classified by extent of disability. The other shows for each insurance carrier the amount of incurred compensation on account of compensable injuries by extent of disability. Neither table, however, shows medical losses. In fact these data are not shown anywhere in the report. In the tables showing classification of injuries by industry and cause all *tabulatable* accidents are used. The tabulations include the following: Classification of accidents by industry and extent of disability; classification by cause and extent of disability; classification by location and nature of injury; permanent partial disabilities classified by degree of disability and temporary total disabilities by day and week periods; fatal cases classified by age and dependency. Frequency and severity rates are not given. A particularly useful feature of the California report is the inclusion of explanatory notes which show what data are included in the tables and the period covered.

An examination of the accident and compensation statistics in the foregoing State reports shows the greatest needs to be the following:

1. Adequate headings or explanatory notes which show just what is included in the various statistical tables and what period they cover.

2. In the presentation of accident and compensation statistics the unit should be the year of occurrence; i. e., all the accidents which occurred within a given period, irrespective of the date of reporting or adjudication, should be treated as a unit. In no other way can accurate comparison be made of one year's experience with another. If necessary the disability period or outstanding losses in open cases should be estimated.

3. In presenting compensation costs the total incurred losses (paid and outstanding) should be given. Merely to show the amount paid out during or for a given period is of little practical value, and in addition is likely to be misleading. Showing compensation costs of closed cases only prevents accurate comparison of one year with another. Compensation and medical losses should be shown separately.

4. In presenting compensation costs only compensable accidents should be used, but in other tabulations all tabulatable accidents should be included.

5. A distribution table of all accidents occurring within the year by extent of disability should be given.

6. In tabulating accidents by industry and cause it is essential that they should be classified by extent of disability, i. e., the number of deaths, permanent partial disabilities, temporary total disabilities, etc., for each industry or cause should be given. Merely to show the total number of accidents occurring in each industry, without taking into account the question of severity, is misleading and of little value.

7. The standard classifications and tables formulated by the committee on statistics of the International Association of Industrial Accident Boards and Commissions should be followed. The reports of the committee on statistics containing these tables and classifications are published in Bulletin 276 of the United States Bureau of Labor Statistics, a copy of which may be had upon request.

SELF-INSURANCE.

Most of the comparisons made heretofore have been principally between private casualty companies and State funds. The following is a brief discussion of self-insurers, i. e., those employers who under certain conditions are permitted to carry their own risks. The self-insurance privilege is usually limited to the larger employers. Practically all of the compensation States except those having strictly exclusive State funds permit employers to carry their own risk subject to such safeguards as the law may prescribe. About one-half of the compensation laws require self-insured employers either to furnish proof of solvency or to deposit such security as is required by the compensation commission or insurance department. In other States they must deposit security in addition to furnishing proof of solvency. Few of the State commissions, however, require deposit of security in every case. They hold that it is not necessary in the case of large companies with unquestioned assets. The filing of mere financial statements, however, showing the assets and liabilities, is an

insufficient guaranty of ability to meet long-continuing payments or to withstand a catastrophe successfully. The financial statement of a Wisconsin self-insurer showed net assets of \$5,000,000, yet the concern shortly afterwards went into the hands of a receiver.

Experience as to self-insurance has been reported to the bureau by the compensation commissions of 21 States. In 15 of these States no self-insured employer has failed or gone into the hands of a receiver; 3 States reported one failure each and 1 State reported two failures, but in all these cases the compensation claims were paid either by the receiver or through security which had been deposited. Only two States reported failures—one small concern in each State—which resulted in several claims being unpaid.

While the security record of self-insurers has been excellent, this favorable experience may be due in part to good fortune or pure chance. It is also quite possible that compensation commissions are not always cognizant of every failure of self-insured employers, because such failures may not be reported to them. This was actually the case in Illinois. In such cases the injured claimant usually consults an attorney, who takes the matter before a bankruptcy court and the commission remains in ignorance of the facts.

Probably the greatest social benefit derivable from self-insurance is the impetus it gives to accident prevention. Self-insured employers at least have a strong incentive to prevent accidents, because there exists a more direct relationship between their accidents and compensation costs. They are also in a position to pay compensation promptly, but, strange as it may seem, their record in this respect is no better than either the State funds or private companies.

One important objection to self-insurance is that it introduces the incentive to deny or pare compensation claims, since the total accident cost to the employer is dependent not only upon the number and severity of his accidents but also upon the cost of those accidents. Consequently, if he can evade payment or reduce the amount he will thereby reduce his total accident cost. Many self-insured employers do not resort to such practices. They not only pay what the law specifies, but some even pay full wages during disability and furnish unlimited medical service. However, a number of industrial commissions have stated that many self-insured employers take advantage of their peculiar position under the law to evade their just compensation obligations. Some of these employers will make a great show of generosity as regards temporary disabilities, but suddenly develop a niggardly or technical spirit in case of major permanent disabilities or other costly injuries.

Probably the most important objection to self-insurance is that it makes the employer practically the final arbiter in the settlement of compensation cases. The unwillingness of the employees to antagonize their employer through fear of losing their jobs will many times prevent them from appealing to the industrial commission. This latent power of intimidation possessed by self-insured employers, though they may be entirely just, effectively inhibits injured workmen from seeking redress from the commission. The commission, moreover, since it obtains its information from the accident reports of the employer, is not in a position to judge of the merits of the case unless the injured employee brings the matter to its attention.

EFFECT OF WEEKLY MAXIMUM IN REDUCING COMPENSATION BENEFITS.

Most of the compensation laws provide that the compensation shall equal a certain percentage of the employee's wage received at the time of the injury. This percentage ranges from 50 to 66½. However, practically all of the States, in addition to the percentages, have weekly maximums beyond which the amount of compensation can not go. This not only limits the amount of compensation still further but virtually vitiates and nullifies the percentages. For example, it is misleading to speak of a State paying 66½ per cent of wages, as is the case in New Jersey, when the same law also provides a weekly maximum of \$12. Therefore, instead of receiving 60, 65, or 66½ per cent the injured workman may actually receive only 20, 25, 30, or 35 per cent of his wages.

The adverse effect of the weekly maximum and other limitations in reducing the compensation benefits to injured employees was brought out in a paper read before the seventh annual meeting of the International Association of Industrial Accident Boards and Commissions at San Francisco in 1920, by Mr. E. H. Downey, actuary of the Pennsylvania Insurance Department. He said:

The bold fact is that on any reasonable estimate of wage loss the benefits payable under the Pennsylvania compensation act of 1919 will amount to not more than 20 per cent of the economic cost of industrial accidents, to say nothing of occupational diseases. The individual wage earner and his family in Pennsylvania still bears, not one-half but four-fifths of the wage loss incident to industrial injuries.

The effect of these limitations is further shown in Table 17, the data in which were prepared by the Pennsylvania Rating and Inspection Bureau. This table shows the percentage the compensation received was of the wage loss in 4,579 temporary disability accidents in Pennsylvania in 1920.

TABLE 17.—PERCENTAGE COMPENSATION WAS OF WAGES IN 4,579 TEMPORARY DISABILITY ACCIDENTS IN PENNSYLVANIA IN 1920.¹

Percentage compensation was of wages.	Temporary disability accident cases.	
	Number.	Per cent.
1 and under 5 per cent.....	85	1.9
5 and under 10 per cent.....	385	8.4
10 and under 15 per cent.....	538	11.8
15 and under 20 per cent.....	663	14.5
20 and under 25 per cent.....	692	15.1
25 and under 30 per cent.....	693	15.1
30 and under 35 per cent.....	452	9.9
35 and under 40 per cent.....	442	9.6
40 and under 45 per cent.....	294	6.4
45 and under 50 per cent.....	197	4.3
50 and under 55 per cent.....	105	2.3
55 and under 60 per cent.....	21	.5
60 and under 65 per cent.....	8	
65 and under 70 per cent.....	1	
70 and under 75 per cent.....	1	.3
75 and under 80 per cent.....	1	
80 and under 85 per cent.....	1	
Total (22.7 per cent).....	4,579	100.0

¹ Data prepared by the Pennsylvania Rating and Inspection Bureau.

It will be noted that the number of cases in which the injured workman received 60 per cent (60 being the statutory percentage in Pennsylvania) or more was only 0.3 of 1 per cent. The number of cases in which the workman received 50 per cent or more was only 3.1 per cent. Taking the 4,579 cases as a whole, the compensation was 22.7 per cent of the wage loss.

The following series of four tables show, for several specified occupations, the effect of the weekly maximum in reducing the statutory percentages in the several compensation States.

Table 18 shows the weekly maximum for each of the more important industrial States. It also shows the standard union wages, as of May 15, 1920, received in the following occupations: Bricklayers, carpenters, machinists, molders, painters, plasterers, sheet-metal workers, and structural-iron workers. These weekly wages were computed from the union wage scales as published by the Bureau of Labor Statistics. Most of these occupations are in the building trades. Moreover, the figures show wage rates rather than earnings. The actual earnings have not been obtainable. The weekly figures given were derived by multiplying the standard minimum hourly rates by the minimum hours per week. It has been assumed that the workers were employed on full time the whole year, which of course is not true for the building trades. On the other hand, the actual hours worked per week and the actual wage rates were probably greater than the minimums upon which the computed weekly wages were based.

TABLE 18.—COMPARISON OF STATUTORY WEEKLY MAXIMUM COMPENSATION AND STANDARD WAGES RECEIVED IN 1920, BY SPECIFIED OCCUPATIONS.

State and city.	Statutory weekly maximum.	Standard wages received in 1920.							
		Bricklayers.	Carpenters.	Machinists, manufacturing shops.	Molders, iron.	Painters.	Plasterers.	Sheet-metal workers.	Structural-iron workers.
Alabama (Birmingham).....	$\begin{cases} \$12.00 \\ \$15.00 \end{cases}$	\$44.00	\$33.00	\$37.68	\$38.40	\$38.50	\$33.00	\$44.00	\$44.00
California (San Francisco).....	20.83	55.00	46.77	39.60	38.72	46.77	50.00	49.50	49.50
Colorado (Denver).....	10.00	55.00	49.50	34.56	38.40	55.00	55.00	44.00	44.00
Connecticut (New Haven).....	14.00	44.00	44.00	38.40	(²)	38.50	44.00	38.50	46.77
Illinois (Chicago).....	$\begin{cases} \$12.00 \\ \$15.00 \end{cases}$	55.00	55.00	44.00	50.40	55.00	55.00	55.00	55.00
Indiana (Indianapolis).....	13.20	55.00	45.00	36.00	43.20	40.00	38.50	44.00	55.00
Kentucky (Louisville).....	15.00	50.60	35.20	(²)	39.84	33.00	44.00	35.20	44.00
Louisiana (New Orleans).....	18.00	44.00	36.00	38.40	38.40	33.00	45.00	44.00	44.00
Maryland (Baltimore).....	18.00	56.25	39.60	36.00	45.02	39.60	49.50	35.20	55.00
Massachusetts (Boston).....	16.00	44.00	40.00	43.20	43.20	40.00	40.00	44.00	44.00
Michigan (Detroit).....	14.00	55.00	44.00	52.80	48.00	55.00	55.00	55.00	55.00
Minnesota (Minneapolis).....	15.00	55.00	44.00	39.60	47.25	44.00	49.50	44.00	38.50
Nebraska (Omaha).....	15.00	55.00	49.50	40.80	40.80	44.00	49.50	44.00	50.60
New Hampshire (Manchester).....	10.00	49.50	49.50	24.00	84.80	35.20	49.50	20.99	44.00
New Jersey (Newark).....	12.00	55.00	44.00	36.00	42.24	44.00	55.00	44.00	49.50
New York (New York).....	20.00	55.00	49.50	43.20	42.24	45.00	52.27	49.50	49.50
Ohio (Cleveland).....	15.00	55.00	55.00	37.50	43.20	49.50	55.00	55.00	55.00
Oregon (Portland).....	$\begin{cases} \$13.49 \\ \$22.50 \end{cases}$	55.00	44.00	38.72	41.27	44.00	49.50	44.00	49.50
Pennsylvania (Pittsburgh).....	12.00	49.50	39.60	(²)	45.02	49.50	50.60	39.60	44.00
Rhode Island (Providence).....	14.00	50.60	44.00	(²)	(²)	39.60	40.00	44.00	44.00
Tennessee (Memphis).....	11.00	55.00	44.00	48.00	44.28	44.00	44.00	44.00	44.00
Texas (Dallas).....	15.00	49.50	44.00	38.40	(²)	44.00	49.41	44.00	44.00
Utah (Salt Lake City).....	16.00	55.00	49.50	42.00	42.00	44.00	55.00	44.00	49.50
Virginia (Richmond).....	12.00	45.00	34.08	36.00	38.40	31.20	33.00	42.24	44.00
Washington (Seattle).....	$\begin{cases} \$16.92 \\ \$12.12 \end{cases}$	55.00	44.00	38.72	38.72	40.00	50.00	44.00	49.50
Wisconsin (Milwaukee).....	14.63	55.00	37.40	36.00	(²)	47.40	38.50	32.40	44.00

¹ With no dependents.

² Maximum with dependents.

³ No scale given.

In Table 19 is shown a comparison of the statutory and actual percentages of wages received for 1920 in the occupations enumerated above.

TABLE 19.—COMPARISON OF STATUTORY AND ACTUAL PERCENTAGES OF WAGES RECEIVED AS COMPENSATION, FOR 1920, BY SPECIFIED OCCUPATIONS.

State and city.	Statutory percentage.	Actual percentage weekly maximum compensation is of wages.							
		Bricklayers.	Car-pen-ters.	Ma-chin-ists, man-u-fac-turing shops.	Mold-ers, iron.	Paint-ers.	Plas-ter-ers.	Sheet-metal work-ers.	Struc-tural-iron work-ers.
Alabama (Birmingham).....	{ 1 50.0 2 60.0	1 27.3 2 34.1	1 36.4 2 45.5	1 31.8 2 39.8	1 31.2 2 39.1	1 31.2 2 39.0	1 36.4 2 45.5	1 27.3 2 34.1	1 27.3 2 34.1
California (San Francisco).....	65.0	37.9	44.5	52.6	53.8	44.5	41.7	42.1	42.1
Colorado (Denver).....	50.0	18.2	20.2	28.9	26.0	18.2	18.2	22.7	22.7
Connecticut (New Haven).....	50.0	31.8	31.8	36.5	(³)	36.4	31.8	36.4	29.9
Illinois (Chicago).....	{ 1 50.0 2 65.0	1 21.8 2 27.3	1 21.8 2 27.3	1 27.3 2 34.1	1 23.8 2 29.8	1 21.8 2 27.3	1 21.8 2 27.3	1 21.8 2 27.3	1 21.8 2 27.3
Indiana (Indianapolis).....	55.0	24.0	29.3	36.7	30.5	33.0	34.3	30.0	24.0
Kentucky (Louisville).....	65.0	29.6	42.6	(³)	37.6	45.5	34.1	42.6	34.1
Louisiana (New Orleans).....	60.0	40.9	50.0	46.9	46.9	54.5	40.0	40.9	40.9
Maryland (Baltimore).....	66.7	32.0	45.5	50.0	40.0	45.5	36.4	51.1	32.7
Massachusetts (Boston).....	66.7	36.4	40.0	37.0	37.0	40.0	40.0	36.4	36.4
Michigan (Detroit).....	60.0	25.5	31.8	26.5	29.2	25.5	25.5	25.5	25.5
Minnesota (Minneapolis).....	66.7	27.3	34.1	37.9	31.7	34.1	30.3	34.1	39.0
Nebraska (Omaha).....	66.7	27.3	30.3	36.8	36.8	34.1	30.3	34.1	29.6
New Hampshire (Manchester).....	50.0	20.2	20.2	41.7	28.7	28.4	20.2	47.6	22.7
New Jersey (Newark).....	66.7	21.8	27.3	33.3	28.4	27.3	21.8	27.3	24.2
New York (New York).....	66.7	36.3	40.4	46.3	47.3	44.4	38.3	40.4	40.4
Ohio (Cleveland).....	66.7	27.3	27.3	40.0	34.7	30.3	27.3	27.3	27.3
Oregon (Portland).....	(⁴) { 1 24.5 2 40.9	1 24.5 2 40.9	1 30.7 2 51.1	1 34.8 2 58.1	1 32.7 2 54.5	1 30.7 2 51.1	1 27.3 2 45.5	1 30.7 2 51.1	1 27.3 2 45.5
Pennsylvania (Pittsburgh).....	60.0	24.2	30.3	(³)	26.7	24.2	23.7	30.2	27.3
Rhode Island (Providence).....	50.0	27.7	31.8	(³)	(³)	35.4	35.0	31.8	31.8
Tennessee (Memphis).....	50.0	20.0	25.0	22.9	24.8	25.0	25.0	25.0	25.0
Texas (Dallas).....	60.0	30.3	34.1	39.1	(³)	34.1	30.4	34.1	34.1
Utah (Salt Lake City).....	60.0	29.1	32.3	38.1	38.1	36.4	29.1	36.4	32.3
Virginia (Richmond).....	50.0	26.7	35.2	33.3	31.3	38.5	36.4	28.4	27.3
Washington (Seattle).....	(⁴) { 1 12.6 2 22.0	1 12.6 2 22.0	1 15.7 2 27.5	1 17.8 2 31.0	1 17.8 2 31.0	1 17.3 2 30.3	1 13.8 2 24.2	1 15.7 2 27.5	1 14.0 2 24.5
Wisconsin (Milwaukee).....	65.0	26.6	39.1	40.6	(³)	39.1	38.0	45.1	33.3

¹ With no dependents.

² Maximum with dependents.

³ No scale given.

⁴ A flat monthly pension not based on wages.

In Table 20 is shown a comparison of statutory and actual percentages of wages received by structural-iron workers for specified years. It shows the increase, if any, in the weekly maximum from 1916 to 1920, and the increase, if any, in the statutory percentage between 1916 and 1920. It also shows, after applying the weekly maximum, the percentage of wages actually received as compensation in the years 1916, 1917, 1919, and 1920.

TABLE 20.—COMPARISON OF STATUTORY AND ACTUAL PERCENTAGES OF WAGES RECEIVED AS COMPENSATION BY STRUCTURAL-IRON WORKERS FOR SPECIFIED YEARS.

State and city.	Weekly maximum compensation.		Statutory percentage of compensation.		Per cent of wages actually received as compensation.			
	1916	1920	1916	1920	1916	1917	1919	1920
Alabama (Birmingham).....	(1)	{ ² \$12.00 ³ 15.00 }	(1)	{ ² 50.0 ³ 60.0 }	(1)	(1)	(1)	{ ² 27.3 ³ 34.1 }
California (San Francisco).....	\$20.83	20.83	65.0	65.0	63.1	63.1	47.3	42.1
Colorado (Denver).....	8.00	10.00	50.0	50.0	29.1	25.9	26.0	22.7
Connecticut (New Haven).....	10.00	14.00	50.0	50.0	36.4	50.0	34.4	29.9
Illinois (Chicago).....	12.00	{ ² 12.00 ³ 15.00 }	50.0	{ ² 50.0 ³ 65.0 }	40.1	{ ² 39.5 ³ 49.4 }	² 31.2 ³ 39.0	² 21.8 ³ 27.3
Indiana (Indianapolis).....	13.20	13.20	55.0	55.0	42.9	40.0	35.3	24.0
Kentucky (Louisville).....	12.00	15.00	65.0	65.0	54.5	45.5	34.1	34.1
Louisiana (New Orleans).....	10.00	18.00	50.0	60.0	36.4	36.4	54.5	40.9
Maryland (Baltimore).....	12.00	18.00	50.0	66.7	43.6	43.6	27.3	32.7
Massachusetts (Boston).....	10.00	16.00	66.7	66.7	36.4	46.3	45.4	36.4
Michigan (Detroit).....	10.00	14.00	50.0	60.0	35.0	35.0	35.4	25.5
Minnesota (Minneapolis).....	11.00	15.00	50.0	66.7	40.0	43.6	39.0	39.0
Nebraska (Omaha).....	10.00	15.00	50.0	66.7	35.0	39.6	37.9	29.6
New Hampshire (Manchester).....	10.00	10.00	50.0	50.0	(1)	(1)	(1)	22.7
New Jersey (Newark).....	10.00	12.00	50.0	66.7	33.0	31.3	31.2	24.2
New York (New York).....	15.00	20.00	66.7	66.7	51.4	49.6	39.0	40.4
Ohio (Cleveland).....	12.00	15.00	66.7	66.7	39.0	34.1	34.1	27.3
Oregon (Portland).....	{ ² 10.38 ³ 17.31 }	{ ² 13.49 ³ 22.50 }	(1)	(1)	{ ² 37.7 ³ 60.0 }	² 33.7 ³ 56.2	² 23.6 ³ 39.3	² 27.3 ³ 45.5
Pennsylvania (Pittsburgh).....	10.00	12.00	50.0	60.0	36.4	32.5	27.3	27.3
Rhode Island (Providence).....	10.00	14.00	50.0	50.0	36.4	33.0	34.4	31.8
Tennessee (Memphis).....	(1)	11.00	(1)	50.0	(1)	(1)	28.6	25.0
Texas (Dallas).....	15.00	15.00	60.0	60.0	50.5	50.5	45.5	34.1
Utah (Salt Lake City).....	(1)	16.00	(1)	60.0	(1)	39.6	36.4	32.3
Virginia (Richmond).....	(1)	12.00	(1)	50.0	(1)	(1)	24.6	27.3
Washington (Seattle).....	{ ² 6.92 ³ 12.12 }	{ ² 6.92 ³ 12.12 }	(1)	(1)	{ ² 25.2 ³ 44.1 }	² 21.0 ³ 36.7	² 15.7 ³ 27.5	² 14.0 ³ 24.5
Wisconsin (Milwaukee).....	9.75	14.63	65.0	65.0	35.5	35.5	41.6	33.3

¹ No law.² With no dependents.³ Maximum with dependents.⁴ No scale given.⁵ A flat monthly pension not based on wages.

In Table 21 is shown a comparison of statutory and actual percentages of wages received under each compensation act in 1920 for weekly earnings of \$25, \$30, \$35, and \$40.

TABLE 21.—COMPARISON OF STATUTORY AND ACTUAL PERCENTAGES OF WAGES RECEIVED AS COMPENSATION UNDER STATE COMPENSATION ACTS FOR SPECIFIED WEEKLY EARNINGS IN 1920.

State.	Per cent provided for in law.	Per cent actually received by man earning per week—			
		\$25	\$30	\$35	\$40
Alabama.....	{ ¹ 50.0 ² 60.0 }	¹ 48.0 ² 60.0	¹ 40.0 ² 50.0	¹ 34.3 ² 42.6	¹ 30.0 ² 37.5
Alaska.....	50.0	50.0	50.0	50.0	50.0
Arizona.....	50.0	50.0	50.0	50.0	50.0
California.....	65.0	65.0	65.0	59.5	52.1
Colorado.....	50.0	40.0	33.3	28.6	25.0
Connecticut.....	50.0	50.0	46.7	40.0	35.0
Delaware.....	50.0	50.0	50.0	42.6	37.5
Georgia.....	50.0	48.0	40.0	34.3	30.0
Hawaii.....	60.0	60.0	60.0	51.4	45.0
Idaho.....	55.0	48.0	40.0	34.3	30.0

¹ With no dependents.² Maximum with dependents.

70 COMPARISON OF WORKMEN'S COMPENSATION INSURANCE.

TABLE 21.—COMPARISON OF STATUTORY AND ACTUAL PERCENTAGES OF WAGES RECEIVED AS COMPENSATION UNDER STATE COMPENSATION ACTS FOR SPECIFIED WEEKLY EARNINGS IN 1920—Concluded.

State.	Per cent provided for in law.	Per cent actually received by man earning per week—			
		\$25	\$30	\$35	\$40
Illinois.....	¹ 50.0	¹ 48.0	¹ 40.0	¹ 34.3	¹ 30.0
Indiana.....	² 65.0	² 60.0	² 50.0	² 42.6	² 37.5
Iowa.....	55.0	52.8	44.0	37.7	33.0
Kansas.....	60.0	60.0	50.0	42.6	37.5
Kentucky.....	65.0	60.0	50.0	42.9	37.5
Louisiana.....	60.0	60.0	60.0	51.4	45.0
Maine.....	60.0	60.0	50.0	42.6	37.5
Maryland.....	66.7	66.7	60.0	51.4	45.0
Massachusetts.....	66.7	64.0	53.3	45.7	40.0
Michigan.....	60.0	56.0	46.7	40.0	35.0
Minnesota.....	66.7	60.0	50.0	42.6	37.5
Missouri.....	66.7	60.0	50.0	42.6	37.5
Montana.....	50.0	50.0	41.7	35.7	31.3
Nebraska.....	66.7	60.0	50.0	42.6	37.5
Nevada.....	60.0	¹ 60.0	¹ 55.4	¹ 47.5	¹ 41.6
		² 75.7	² 63.1	² 54.1	² 47.3
New Hampshire.....	50.0	40.0	33.3	28.6	25.0
New Jersey.....	66.7	43.0	40.0	34.3	30.0
New Mexico.....	50.0	43.0	40.0	34.3	30.0
New York.....	66.7	66.7	66.7	57.1	50.0
North Dakota.....	66.7	66.7	66.7	57.1	50.0
Ohio.....	66.7	60.0	50.0	42.6	37.5
Oklahoma.....	50.0	50.0	50.0	50.0	45.0
Oregon.....	⁽³⁾	¹ 54.0	¹ 45.0	¹ 38.6	¹ 33.7
		² 78.0	² 75.0	² 64.3	² 56.3
Pennsylvania.....	60.0	43.0	40.0	34.3	30.0
Porto Rico.....	50.0	28.0	23.3	20.0	17.5
Rhode Island.....	50.0	50.0	46.7	40.0	35.0
South Dakota.....	55.0	43.0	40.0	34.3	30.0
Tennessee.....	50.0	44.0	36.7	31.4	27.5
Texas.....	60.0	60.0	50.0	42.6	37.5
Utah.....	60.0	60.0	53.3	45.7	40.0
Vermont.....	50.0	50.0	41.7	35.7	31.3
Virginia.....	50.0	43.0	40.0	34.3	30.0
Washington.....	⁽³⁾	¹ 27.7	¹ 23.1	¹ 19.8	¹ 17.3
		² 48.5	² 40.4	² 34.6	² 30.3
West Virginia.....	50.0	43.0	40.0	34.3	30.0
Wisconsin.....	65.0	58.5	48.8	41.8	36.6
Wyoming.....	⁽³⁾	¹ 32.3	¹ 26.9	¹ 23.1	¹ 20.2
		² 55.4	² 46.2	² 39.6	² 34.6
United States.....	66.7	61.5	51.3	43.9	38.5
British Columbia.....	55.0	55.0	55.0	55.0	55.0
Ontario.....	66.7	66.7	66.7	66.7	66.7

¹ With no dependents.

² Maximum with dependents.

³ A flat monthly pension not based on wages.

An analysis of these tables shows to what extent the weekly maximums nullify the statutory percentages. Probably no other factor has been more instrumental in vitiating the beneficent purpose of workmen's compensation laws than this weekly maximum. In New Jersey, for example, a workman is supposed to receive 66 $\frac{2}{3}$ per cent of his wage in case of injury. As a matter of fact, however, because of the operation of the \$12 weekly maximum, instead of receiving 66 $\frac{2}{3}$ per cent a bricklayer and a plasterer receive only 21.8 per cent; a structural-iron worker receives 24.2 per cent; a carpenter, a painter, and a sheet-metal worker receive 27.3 per cent; a molder, 28.4 per cent; and a machinist 33.3 per cent. The effect of the weekly maximum in the other States can be obtained by referring to the tables

Table 20 brings out the significant fact that although the weekly maximum and the statutory percentage have been increased in most of the States, yet because of the greater increase in wages the relative amount of compensation received in 1920 is less than it was in 1916. The weekly maximum in New Jersey was increased from \$10 to \$12 and the percentage of wages was increased from 50 to 66 $\frac{2}{3}$, yet the actual percentage received by structural-iron workers in 1916 in New Jersey was 33 per cent, whereas the actual percentage received in 1920 was only 24.2 per cent.

Furthermore, the percentages in the tables relate to temporary total disability accidents only. In cases of permanent partial disability or in death cases the percentages would be still smaller.

Again, in computing the percentages the waiting periods were left out of consideration. It was assumed that compensation was paid from the date of the accident. The wage loss suffered by the injured workmen therefore is even greater than the percentages indicate. In order to show the effect of the waiting periods upon wage loss, the given wage percentages should be decreased by the following percentages: A 3-day waiting period by 2.8 per cent; a 7-day waiting period by 9.4 per cent; a 10-day waiting period by 14.4 per cent; a 14-day waiting period by 20.7 per cent.

METHODS OF COMPUTING WAGES IN WORKMEN'S COMPENSATION PRACTICE.⁵²

Among the numerous problems which come up for settlement before the boards and commissions administering workmen's compensation laws is the problem of arriving at an equitable method of computing the average earnings which form the basis upon which compensation awards are to be paid. Many of the administrative bodies are allowed broad discretionary powers in making such determinations, while others are restricted by more or less detailed provisions outlined in the laws. Under practically every workmen's compensation law awards of compensation are based upon the amount of wages earned. (The only States which do not pay compensation on the basis of wages earned are Oregon, Washington, and Wyoming.) The questions immediately arise: What method shall be employed to determine the average earnings? and What shall be regarded as constituting wages? These questions have received very little attention by writers upon compensation subjects in the past, a fact that was casually commented upon by some members of the International Association of Industrial Accident Boards and Commissions at its convention in San Francisco in 1920. In an effort to discover the methods in use in this branch of workmen's compensation legislation and administration this survey was undertaken. A comparison is here made of the legal provisions, commission rulings, and court and commission decisions which outline the various methods of computing the average weekly wages now in use in the United States and Canada, with the purpose of showing what items are regarded as constituting wages or earnings.

An examination of the provisions of the various laws shows that two States (Washington and Wyoming) make no provisions whatever for computing average wages. This is due to the fact that in

⁵² This section was prepared and written by Martin C. Frincke, jr.

those States compensation payments are fixed sums prescribed by the statutes and are not based on the wages of the injured employee. The laws of Alaska, Maryland, Nevada, and Yukon Territory are also silent with regard to the method of computing the average weekly wages except that the law of Maryland requires that "full-time" wages be used. All the laws of the remaining States (this word will hereafter be regarded as including the States and Territories of the United States, the United States, and the Provinces of Canada) make some reference to the average wages. Twenty-eight laws⁵³ outline very definite methods of computing the average wages of an employee working on a full-time basis, while the remainder either outline only the method of compensation when an employee has not worked on a full-time basis or state over what period of time the wages to be used in the computations must have been earned, or merely declare that the compensation is to be paid on the basis of a certain percentage of the average wages. All these laws are susceptible of various interpretations in their practical application to specific cases.

Almost all the laws containing specific rules for the computation of average earnings prescribe different methods for computing wages when the employee is working full time and when he is working part time, and also when the period of time worked prior to the injury has been so short as not to form an adequate basis for computation of earnings. Many laws also outline the methods of computing the earnings of minors, learners, and apprentices. The reason why there are several methods of computing the average weekly wage in each State is that provision may be made for all the various situations and circumstances which may arise. Whether provisions for computing wages are found in the law or made by the administrative body it seems that at least two situations must always at some time or other be met; these are when an employee has worked continuously for a period of one year, or six months, on a full-time basis, and when he has worked only a short time or irregularly. The States whose laws prescribe the method of computing weekly wages may be divided roughly into seven groups or classes, according to the following different situations which determine the method of computation: (1) When the workman has been employed on a full-time basis; (2) when the average wage earned at the time of the injury is to be taken; (3) when the workman has not worked on a full-time basis for the prescribed period; (4) when he has worked only a very short time preceding the injury; (5) when he has been working at a seasonal employment; (6) when the workman was earning money at two or more concurrent jobs when he was injured; (7) when the injured person is a minor, apprentice, or learner. According to the laws of 10 States⁵⁴ no provision is made for computing the average weekly wages on a full-time basis, but the method to be used is left to the discretion of the commission. A comparison of the laws prescribing the method of computing the wages for a workman who has been engaged in work on a full-time basis will first be considered.

⁵³ Alabama, California, Colorado, Connecticut, Delaware, Georgia, Illinois, Indiana, Iowa, Kansas, Maine, Massachusetts, Michigan, Missouri, Nebraska, New Jersey, New Mexico, New York, Oklahoma, Oregon, Pennsylvania, Quebec, Rhode Island, South Dakota, Tennessee, Texas, Virginia, and Wisconsin.

⁵⁴ Alberta, Alaska, Hawaii, Idaho, Manitoba, Maryland, New Hampshire, North Dakota, Oregon, and Yukon Territory.

COMPUTATIONS ON FULL-TIME BASIS.

The laws contemplate that employment will be on a full-time basis. A man has been employed on full time if he has worked regularly and continuously for a certain minimum period, usually one year or six months, at the same kind of work for the same or different employers. Various minimum periods (from 7 days to 2 weeks) are stipulated during which a workman may be absent from work and still be regarded as working "full time," the rule being that when a man has worked on a full-time basis, average earnings are always computed, if possible, upon that basis. If for some reason they can not be computed on a full-time basis, other methods in the nature of exceptions or alternatives are used.

The various provisions of the law prescribing the method of computing the average earnings of an employee who has been engaged at work on a full-time basis indicate four distinct methods of making the computation, as follows: (1) Divide the earnings for the year preceding the injury by 52; (2) multiply the average daily wage at the time of the injury by 300 and divide by 52; (3) divide the earnings for the 6 months preceding the injury by 26; (4) multiply the average daily wage for the 6 months preceding the injury by $5\frac{1}{2}$, 6, $6\frac{1}{2}$, or 7, according to the number of days in the employee's customary week. There are 13 States⁵⁵ that compute the average weekly wages by the first method, taking the actual full-time earnings of the employee for one year immediately preceding the injury and dividing by 52, but this method of computation may not be employed in Kansas if the workman loses any time at all; in Alabama, South Dakota, and Virginia when the workman has been absent from work for 7 consecutive days; in Indiana, New Mexico, and Tennessee when absent 7 or more days; and in Massachusetts when absent 2 weeks. In cases where the absence from work is greater than the prescribed period it becomes necessary to employ some one of the methods prescribed for computing the wages on a part-time basis. In all of the States in this group except Iowa, Nevada, New York, Ohio, and Ontario this method is specifically prescribed in the law. In Iowa and Nevada this method was adopted by rules of the administrative commissions. In Nevada compensation is paid on a monthly basis and therefore, instead of dividing the year's earnings by 52, they are divided by 12; the principle, however, is the same. This method is not the one prescribed in the law of New York, but in the case of *Remo v. Skenandoa Cotton Co.*⁵⁶ it was declared that this method must be used where an employee regularly worked but five days per week. The State of Ohio was brought within this group by a decision of the industrial commission.⁵⁷ The law of this State simply declared that the average weekly wage at the time of the injury should be used, leaving it to the commission to determine how it was to be used. This method of computing the average weekly wages of the employee was upheld in a case⁵⁸ which came before the Ohio courts, where it was said: "There is no statutory provision by which the 'average weekly wages' may be determined,

⁵⁵ Alabama, Indiana, Iowa, Kansas, Massachusetts, Nevada, New Mexico, New York, Ohio, Ontario, South Dakota, Tennessee, and Virginia.

⁵⁶ 179 N. Y. Supp. 48.

⁵⁷ In re King, Bulletin of the Ohio Industrial Commission, No. 7 (1913), p. 37.

⁵⁸ Ware v. Industrial Commission, 8 Ohio App. 460.

but some force should be given to the word 'average.'" The board of Ontario has adopted a slight variation of this method. In this Province the wages are computed by this method, and the mean between the result so obtained and the weekly wages at the time of the injury is used as the average weekly wage. In each case where the method of dividing the total full-time earnings for the year preceding the injury by 52 is used to find the average weekly wage it is required that the employee must have been continuously engaged during said preceding year in the same grade of work, or in the same employment, or for the same employer. Although the law of Massachusetts does not state that the earnings during the year preceding the injury must have been earned in the same employment, a recent decision of the courts has ruled to this effect.⁵⁹

There are 10 States⁶⁰ that compute the average weekly earnings of employees who have been employed on a full-time basis by the second method. This method is to multiply the average daily wage at the time of the injury by 300 and divide the product by 52. Included in this group are four States (Illinois, Iowa, South Dakota, and Georgia) whose laws prescribe that the average daily wage be multiplied by 300 and divided by the number of installment periods. Just what this was intended to mean is difficult to determine. Of these four States, Iowa and Illinois, by rules of the industrial commission, have adopted the method of dividing by 52; South Dakota provides two systems of computing the wages but the method here considered is used; while Georgia has but recently enacted its law and it is not known how this provision will be interpreted. Of the main group of States that employ this method of computing wages, Utah adopted it in the rules of its commission. In Maine the court decided⁶¹ that in arriving at the daily wage, which is to be multiplied by 300, the last week's wages should govern, and that this should be divided by 6 regardless of the fact that the employee may have had a half holiday on Saturday. A few cases of interest have come before the New York courts for interpretation of the application of this method, which is the one outlined in the law of that State and most commonly used. Thus in one case,⁶² where an employee had worked but 274 days previous to his injury, it was ordered that this method should be used the same as if he had worked the whole year previous to the injury. In another case⁶³ the court decided that where the injured employee had been regularly employed 7 days per week his daily wage should be multiplied by 332 instead of 300 to find the annual earnings. Wisconsin has been classed in this group because the principle involved in the method employed by this State is very similar to that here involved. Instead of dividing the annual earnings by 52, however, the Wisconsin law requires that they be divided by 50. This method is more liberal than that of other States of this group and is regarded as more scientific in application in that it makes some provision for lost time and holidays. A Michigan court⁶⁴ refused to compute the wages of an injured employee by

⁵⁹ *In re Gagnon (Mass.)*, 117 N. E. 321.

⁶⁰ Georgia, Illinois, Iowa, Maine, New York, Oklahoma, South Dakota, Texas, Utah, and Wisconsin.

⁶¹ *Hight v. York Mfg. Co. (Me.)*, 100 Atl. 9.

⁶² *Lesman v. Drey Bros.*, New York Department of Labor, Special Bulletin 95, p. 145.

⁶³ *Prentice v. New York State Rys.*, 181 App. Div. 144.

⁶⁴ *Robbins v. Oriental Gas Engine Co. (Mich.)*, 157 N. W. 437.

this method where it appeared that he had lost seven weeks' work during the year.

In the two foregoing methods of computing wages on a full-time basis the laws of the respective States require that the injured employee must have been continuously employed for one year previous to his injury. In the consideration of the other two methods in this group the laws of the States included require only six months' continuous employment prior to the injury. The first of these two methods is to divide the actual earnings for the six months prior to the injury by 26. The States that compute the average weekly wages in this manner are Colorado, Connecticut, and Rhode Island, the last two States permitting only such wages to be used as were earned from the employer for whom the employee was working when injured. The commissioners of Connecticut have even gone so far as to hold⁶⁵ that this method of computing the wages must be employed when the employee has been employed on a part-time basis. The second of these two methods is to take the average daily wage over a period of 6 months and multiply by the number of days in the workman's normal week, whether $5\frac{1}{2}$, 6 or $6\frac{1}{2}$, or 7. The States computing the average weekly wages by this plan are Delaware, Nebraska, New Jersey, and Pennsylvania. In connection with Delaware it is to be noted that the law arbitrarily states that the average daily wage is to be multiplied by $5\frac{1}{2}$ in all cases. The application of this method as laid down in the rules and decisions of the Pennsylvania Workmen's Compensation Board⁶⁶ is as follows:

In ascertaining the weekly wage of an employee for compensation purposes, from the total number of working days during the preceding 6 months should be deducted all (1) Sundays, (2) legal holidays, (3) half-holidays, (4) and days employee was absent through no fault of his own, including days when the plant or mine was idle because of a strike, and the number thus obtained should be divided into the total earnings for the six months' period. The average daily wage thus obtained shall then be multiplied by $5\frac{1}{2}$, 6, $6\frac{1}{2}$ or 7.

COMPUTATION OF WAGES AT THE TIME OF INJURY.

The second class or group includes those States that follow a method of computing the weekly wages of an injured employee by which little or no regard is had to the previous earnings of such employee. "Average weekly wages" as determined by such a method have no reference to an actual average of the employee's past earnings but are merely the result of an arbitrary computation, the figure arrived at having the appearance of an average. By this method the wages the employee was earning at the time of his injury are taken as the basis and are either multiplied by the number of days in the employee's customary working week or are multiplied by 300 and divided by 52. The laws of nine States⁶⁷ require the use of the former process. Nevada, New Jersey, and Oregon have adopted it by rules of the administrative commissions, while in Indiana this plan has been adopted by decision of the courts, it being held in one case⁶⁸ that the average weekly wage of a laborer

⁶⁵ *Silveria v. Connecticut Quarries Co.*, Connecticut Workmen's Compensation Cases Digest, vol. 1, p. 509.

⁶⁶ *Sicheri v. Allegheny River Mining Co.*, Pennsylvania Workmen's Compensation Board Decisions, vol. 4, p. 274.

⁶⁷ California, Louisiana, Michigan, Minnesota, Montana, Ohio, Porto Rico, West Virginia, and the United States.

⁶⁸ *Interstate Iron & Steel Co. v. Szot*, 115 N. E. 599.

whose regular compensation was 20 cents an hour and who was injured while temporarily doing the work of a fireman at \$3 a day, was correctly computed at \$3 multiplied by 6, or \$18 a week. It will be noted that this method will sometimes result in an advantage to the employee, while on the other hand, if working for a lower than usual wage when injured it will be a distinct disadvantage. According to the rules of the Montana board⁶⁹ an exception is made in the case of an employee doing piecework, in which case the earnings for the previous 90 days are used. In two cases coming before the Louisiana courts⁷⁰ it was decided that the wage used should be "the daily rate of pay under the contract of hire in force at the time of the accident." The law of West Virginia declares that the wage at the time of the injury must be used, but goes on to amplify this by saying: "The time of injury, within the meaning of this section, shall be such reasonable length of time immediately preceding the date of injury as shall enable the commissioner to make a fair and just award." On the face of this provision it is ideal for it makes it possible to accord an equitable settlement in every case, but in actual practice it has been found by investigation that in computing the average weekly wages the commissioner of West Virginia has adopted the practice⁷¹ of cutting up the period preceding the employee's accident into groups of one year, six months, four months, and two months, and then permitting the employee to select the period by which he wishes to be governed. The period thus selected is then divided by the number of weeks therein contained to find the average weekly wage. Thus if an employee, by reason of strikes, illness, or industrial depression, is able to work only 5 days in a two-month period his earnings for these five days would be divided by the number of weeks in the two-month period and the result would be his "average" weekly wage, upon which basis he would be compensated. Of course the employee might choose one of the other periods but in any case such period would include the two-month period in which only five days were worked. The law declares that the wages earned *immediately* preceding the injury must be used in such a way as to arrive at a "fair and just award," but the use of the arbitrary periods adopted in this State does not give the wages immediately preceding the injury.

The method of computing the average weekly wages by using the daily wage at the time of the injury, multiplying it by 300 and then dividing by 52, has been applied in six States.⁷² Many of these States, it will be noted, have been classified in the previously outlined groups. Their inclusion in this group in most instances has been brought about by judicial interpretations of the provisions of the respective laws in their application to cases under consideration. Thus in a case before the Iowa commission,⁷³ where a man had shortly before his injury been transferred to a higher grade of work, it was held that the average daily wage to be multiplied by 300 could not be found by considering preceding lower grade wages; so it was ordered that the daily wages at the time of the injury were to

⁶⁹ First Annual Report, Montana Industrial Accident Board (1915-16), p. 232.

⁷⁰ *McGuirt v. Gillespie*, 75 South. 419; *Behan v. John B. Honor Co.*, 78 South. 589.

⁷¹ See p. 15.

⁷² Iowa, Kentucky, New York, Utah, Ohio, and South Dakota.

⁷³ *Winburn v. Des Moines Saw Mill Co.*, Iowa Workmen's Compensation Commission, Legal Opinions (1916), p. 54.

be used and multiplied by 300 and then divided by 52. In Kentucky,⁷⁴ where the nature of the injured man's employment is such that he does not work the full year his daily wage at the time of his injury is multiplied by the customary working days for his occupation and divided by 52. This method, although justified, is not as liberal as that of Iowa. In a case⁷⁵ decided by a New York court, where a workman was employed in a brickyard as a laborer at \$1.40 a day for 5 months a year and as a molder at \$2.65 a day for 7 months a year and was injured while working as a molder, it was held that the wages earned at the time of the injury (\$2.65 a day) should be used. This method was also applied in a case⁷⁶ which came before the Utah courts.

In addition to the above-mentioned States there are 10 States⁷⁷ whose laws permit the use of the wages that are being earned at the time of the injury when the circumstances are such as to make it impossible or unfair to compute the wages in the usual manner. The laws of Hawaii, Kentucky, North Dakota, and Vermont also contain a provision that if at the time of the injury the employee was earning higher wages for a higher grade of work than he had been earning previously during the period preceding his injury, then only such higher wages can be considered in the computation of the average weekly wage.

COMPUTATIONS ON PART-TIME BASIS.

The methods of computing the average weekly wages on the full-time basis are comparatively simple and without any great difficulty as to application. The real problems arise when an injured workman has worked only a part of the time stipulated in the law previous to the time of the accident. Owing to the requirements in many of the laws that full-time methods may only be used when the employee has been employed continuously for the requisite period in the same grade, in the same employment, or for the same employer, the alternative part-time methods are more widely applied in determining the average weekly wages. Three general situations which should control the determination of the average weekly wage are recognized by the various laws. The first of these is where the employee has been employed continuously a considerable length of time but has not been so employed for the full stipulated period; the second is where the employee has been employed only a very short length of time, such as a few hours, and there is no adequate basis of his own earnings on which to compute his average weekly wages, and the third is where the employee has been injured while engaged in a seasonal occupation. These various situations will be taken up in their order.

Where the law of a State requires that the injured employee must have been employed a full period of one year or six months prior to the injury, and the employee has not been employed for such full period but has nevertheless been employed sufficiently long for his earnings to form a basis for computing his average earnings, then

⁷⁴ *Lodge v. Virginia Iron, Coal & Coke Co.*, Leading Decisions of the Kentucky Workmen's Compensation Board (1917-1919), p. 25.

⁷⁵ *Bylow v. St. Regis Paper Co.* (N. Y.), 179 App. Div. 555.

⁷⁶ *Utah Power & Light Co. v. Industrial Commission* (Utah), 189 Pac. 875.

⁷⁷ Colorado, Hawaii, Idaho, North Dakota, Vermont, British Columbia, Manitoba, New Brunswick, Nova Scotia, and Ontario.

the wages actually earned during such shorter period are divided by the number of weeks in that period. In other words, when the full-time method can not be used, the actual wages divided by the actual number of weeks required to earn them are used as the average weekly wages. In 14 States⁷⁸ this method is employed because required by law; in Nevada and Ontario it has been incorporated in the rules of the administrative bodies; and in Maryland, Ohio, and Pennsylvania it has been actually applied by the commissions in cases which came before them for hearing. In Connecticut, judging from the decisions of the commissioners, it seems that two weeks' employment is sufficient to establish a basis upon which to compute the average weekly wages. Thus in employing this method a Connecticut commissioner held⁷⁹ that where an employee had worked only 18 days in a four-week period his wages for that period must be divided by four, and another more equitable method could not be used because the employee had worked two full weeks previous to his injury. The law of the State of Maryland leaves the computation of the average weekly wages to the discretion of the commission. In its exercise of this discretion the commission of this State, in a number of cases which came before it for decision, adopted this method of computing the average wages, dividing the actual earnings for the period worked by the number of weeks in such period.

When the employee has worked only a very short time previous to the injury, so that no adequate basis of previous earnings exists for computing the average weekly wage, the wages of other persons who have worked under the same circumstances but for the required period are used. Nearly every statute that makes any effort to designate the methods for computing the average weekly wages prescribes this method as a last resort where by reason of the shortness of the time of service or other circumstances the aforementioned methods can not equitably be applied. This provision is so nearly alike in each of the various laws that it can best be stated by quoting from one of the acts. In the Idaho law this provision is as follows:⁸⁰

Where by reason of the shortness of the time during which the workman has been in the employment, or the casual nature of the employment, it is impracticable to compute the rate of remuneration, regard may be had to the average weekly earnings, which, during the twelve months (or six months) previous to the injury, were being earned by a person in the same grade, employed at the same work by the employer of the injured workman, or if there is no person so employed, by a person in the same grade employed in the same class of work in the same district.

The laws of 28 States⁸¹ contain this provision. The Kentucky and Nevada commissions have incorporated it in their rules, and the Ohio⁸² commission has adopted it by actual application to cases coming before it. In a case⁸³ coming before the California com-

⁷⁸ Alabama, Arizona, Connecticut, Delaware, Indiana, Massachusetts, Nebraska, New Hampshire, New Jersey, Rhode Island, South Dakota, Tennessee, Vermont, and Virginia.
⁷⁹ *Cheski v. Connecticut Mills Co.*, Connecticut Workmen's Compensation Cases Digest, vol. 1, p. 213.

⁸⁰ Idaho Acts of 1917, ch. 81, sec. 24.

⁸¹ Alabama, Alberta, California, Connecticut, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Maine, Manitoba, Massachusetts, Michigan, New Mexico, New York, North Dakota, Oklahoma, Ontario, Pennsylvania, Quebec, Rhode Island, South Dakota, Tennessee, Texas, Vermont, Virginia, and Wisconsin.

⁸² In *re Williams*, Bulletin of Ohio Industrial Commission, vol. 1, No. 7, p. 31.

⁸³ *Mitchell v. Langley & Livingston*, Decisions California Industrial Accident Commission, vol. 6, p. 188.

mission this method was resorted to to find the average daily wage, after which the usual method employed under the California law was applied to find the average weekly wage. In contrast to this procedure is the action of a Connecticut commissioner⁸⁴ who decided from the evidence in the case before him that \$9 was the proper weekly rate of earnings, and arbitrarily applied that amount in the determination of the compensation. The Workmen's Compensation Board of Kentucky in applying this method⁸⁵ uses it not to find the wage itself, but to find the usual period of time per year men are regularly employed at the particular occupation, and taking this period multiplies it by the daily wage at the time of the injury, thus ascertaining the annual wages, which are then divided by 52 to find the average weekly wage. It will be noted in the quoted extract of the Idaho law that the wages of a fellow employee must first be resorted to, if possible, before the wages of employees of other employers can be used. This point came up for decision before a Maine court,⁸⁶ where it was held that where an insurance company has presented evidence of the wages of a fellow employee of the same grade, resort can not be had to the wages of employees of other employers. In applying this method of ascertaining an average weekly wage the Industrial Accident Board of Massachusetts⁸⁷ has adopted the custom of securing testimony from various persons engaged in the particular occupation as to what in their opinion or experience may be regarded as a fair weekly wage, and from this testimony the board makes its own deductions. The New York commission, in the case⁸⁸ of an injured printer coming before it, resorted to the union rate of wages and took the mean between that and his actual wage at the time of the injury. A case⁸⁹ came before the Wisconsin courts of a plumber who was injured while temporarily acting as a policeman at the behest of the town marshal, and it was held that his average wages would have to be determined by the usual wages of a policeman who devoted his entire time to that occupation, and not by his wages as a plumber.

SEASONAL OCCUPATIONS.

Seasonal occupations, as the name implies, are occupations which do not provide employment throughout the entire year. Usually workers when they are thrown out of work by the expiration of a season will take up other occupations that may offer a means of livelihood. When a workman engaged in a seasonal occupation is injured and becomes entitled to compensation, it is often a difficult matter to determine how his average weekly wages are to be computed. Some States will permit the aggregate of all his earnings at all occupations during the year to enter into the computation of the average weekly wages, while other States confine the computation strictly to the wages earned in the occupation in which the workman was in-

⁸⁴ *Brady v. Grove*, Connecticut Workmen's Compensation Cases Digest, vol. 1, p. 240.

⁸⁵ Leading Decisions of the Kentucky Workmen's Compensation Board (1917-19), pp. 73, 82.

⁸⁶ *Thiebault's Case* (Me.), 111 Atl. 491.

⁸⁷ Massachusetts Industrial Accident Board, Workmen's Compensation Cases, vol. 2, pp. 179, 558, 704.

⁸⁸ *Adams v. Boarum & Pease* (N. Y.), 179 App. Div. 412.

⁸⁹ *Village of West Salem v. Industrial Commission of Wisconsin*, 9 Negligence & Compensation Cases Ann. 541.

jured. It must, of course, be understood that the question of seasonal employment does not always have to be recognized in States where the wages at the time of the injury are used to compute the average weekly wages. The laws of the States of California, Delaware, Nebraska, and Pennsylvania provide that the aggregate of all the earnings from all occupations are to be used, while in Massachusetts and Oklahoma this rule has been adopted by decisions in cases bringing up this point. The law of California limits this provision by declaring that the wages earned in other occupations must not be considered at a higher rate than the rate earned in the occupation in which injured. In Delaware, Nebraska, and Pennsylvania after the aggregate annual earnings have been determined, the total is divided by 50 to find the average weekly wage. Since in performing seasonal labor the workman is required to shift from job to job, it is inevitable that he will lose some time between jobs, and this seems to be the theory underlying the method of dividing the annual earnings by 50 instead of the usual 52 weeks. The courts of Massachusetts have decided in a case⁹⁰ involving a longshoreman that the aggregate of all the earnings of the employee during the year should enter into the computation of his average weekly wages. The Oklahoma Industrial Commission, in a case⁹¹ which came before it for hearing came to the same conclusion, but, unlike the above States, it divided the aggregate annual earnings by 52 to find the average weekly wage. According to the rules adopted by the Kentucky board, the aggregate annual earnings are permitted to be used, but they also are divided by 52 to get the weekly wage.

In Georgia, Illinois, Iowa, and South Dakota, as fixed by statute, the method of computing the average weekly wages of an employee who has been injured while engaged in a seasonal employment is to determine the number of days during which such seasonal occupation offers employment, not less than 200, and multiply such number of days by the average daily wage and divide this by 52 to arrive at the weekly wage. A decision⁹² of the New York courts declared that the "annual earning capacity of the injured employee in the employment is the proper basis of compensation," and further stated that in determining the average weekly earnings regard should be had "to the known and recognized incidents of the employment, including the element of discontinuousness." In Utah it was decided in a case⁹³ coming before the courts that where work is seasonal or intermittent the aggregate earnings in the employment should be divided by the number of weeks employed. On the face of this decision it appears to be very equitable, but in fact it worked a great hardship on the employee concerned. This employee was a farmer and had been employed to drag the roads after the rains. From the nature of this work he could have only intermittent employment at road dragging and seldom for a full week, so that when the court in computing his wages divided his aggregate earnings as a road dragger by the number of weeks in the period during which he was employed, the result was only a small sum. The earnings of the employee as a farmer were not permitted to be taken into consideration.

⁹⁰ *Gillen v. Ocean Accident & Guarantee Co.*, 215 Mass. 96, 102 N. E. 346.

⁹¹ *Ryan v. Maud Ginning Co.*, Oklahoma Industrial Commission Decisions, vol. 2, p. 116.

⁹² *Matter of Littler v. Fuller Co.*, 223 N. Y. 369, 119 N. E. 554.

⁹³ *State Road Commission v. Industrial Commission of Utah*, 190 Pac. 544.

CONCURRENT EMPLOYMENTS.

The sixth group includes those States in which provisions are made with regard to employees who at the time of their injury are employed in two or more concurrent employments, each employment contributing separately to the workman's wages. There are two methods of computing the wages of such employees—one, by taking into consideration the combined wages of the employee from all his employers; and the other, by taking into consideration only such wages as the workman earned from the employer in whose service he was actually engaged when injured. Twelve States⁹⁴ have adopted the first of these methods, five of them (Kansas, Maine, Pennsylvania, Alberta, and Manitoba) by statute and the remainder by rules or decisions of the commissions or courts. In California, where a newsboy was engaged in selling newspapers for two publishers, one publishing a morning paper and the other an afternoon paper, the industrial accident commission held⁹⁵ that his total earnings from all sales should enter into the computation of his average weekly earnings. In another case decided by this commission⁹⁶ it was held that where a typist who worked five and one-half days per week for one employer and Saturday afternoons and Sunday evenings for another was injured while in the employ of the latter, her entire earnings from both employers must be considered in determining her average weekly wage. Decisions of the same nature were arrived at in Kentucky⁹⁷ in the case of a miner who part of the time worked for a utility company; in Indiana⁹⁸ in the case of a janitor engaged under separate contracts to wash windows for several employees; in Maryland⁹⁹ in the case of a market errand boy who was part of the time employed in operating a meat-cutting machine; in Minnesota¹ in the case of a lineman engaged part of his time in other capacities; and in Ohio² in the case of a mine check weighman who was at the same time in the employ of both the mine owner and the miners' union. In Manitoba the board, by a rule adopted by it, computes the average weekly wages of employees engaged at concurrent jobs by taking the average in the different employments if in the same grade of work.

There are six States³ whose laws or practices grant compensation based only on the earnings from the employer in whose service the injury was received. Of these jurisdictions the Provinces of Manitoba and Ontario are the only ones that have followed this plan by reason of the requirements of its law. It should be noted in connection with these Provinces, however, that this method is qualified by the provision that the employee's earnings "shall be computed on the basis of what he would probably have been earning if he had been employed solely in the employment of the employer for whom he

⁹⁴ Alberta, California, Kansas, Kentucky, Indiana, Iowa, Maine, Manitoba, Maryland, Minnesota, Ohio, and Pennsylvania.

⁹⁵ *Sewel v. Chronicle Publishing Co.*, Decisions of Industrial Accident Commission of California, vol. 6, p. 23.

⁹⁶ *O'Connell v. Blums Advertising Agency*, Decisions of Industrial Accident Commission of California, vol. 6, p. 225.

⁹⁷ *Cloutz v. Kentucky Utilities Co.*, Leading Decisions Workmen's Compensation Board, 1917-1919, p. 129.

⁹⁸ *In re Howard (Ind.)*, 125 N. E. 215.

⁹⁹ *Smith v. Kaiser*, Maryland Workmen's Compensation Cases, vol. 1, p. 148.

¹ *Klietz v. Village of North St. Paul*, Minnesota Department of Labor and Industries, Bul. No. 16, p. 57.

² *In re Nielson*, Bulletin of Ohio Industrial Commission, vol. 4, No. 5, p. 134.

³ Connecticut, Idaho, Massachusetts, Minnesota, Ontario, and Wisconsin.

was working at the time of the accident." Manitoba has also been classed in the group employing the first method because of the actual practice adopted by the board of that Province in its interpretation of the law. Minnesota, likewise, has also been classed in the first group of these States because of the decision of its department of labor and industries in the *Klietz*¹ case, but it seems that according to the usual practice of this State the compensation is "based only on earnings from employer in whose service injury was received." The commission of Idaho, which has adopted this method, employs it only to the extent that it uses the daily wage of the workman at the time of the injury. In the application of this method a Connecticut court held,² in the case of a man who was employed during the day as an insurance agent and at night as a newspaper reporter and who was injured while performing duties in the latter occupation, that only his wages as a reporter could be computed in determining his average weekly wage. Likewise, in Massachusetts a court held³ that where a printer worked during the week for one publisher at \$28 per week and on Saturdays for another publisher for \$9.20 and was killed while working on the latter job, his dependents could recover compensation based only on the earnings on such job (\$9.20). In this case the court said:

The amount earned by an employee in a particular employment should govern in all cases in computing the compensation to be paid under the workmen's compensation act unless the computation becomes impracticable; and the wages which determine the compensation are the wages earned in the employment where the injury happens.

The reason for considering the earnings in all the employments when the various concurrent employments are in the same occupations and such as are usually carried on at the same time is not hard to find, but the reasoning underlying the contention that where the concurrent employments are in two or more distinct occupations only the earnings in that employment in which the accident occurred should be considered is harder to understand. It is said that equity requires that the responsibility of an industry should be limited to those earnings which may reasonably be deemed to fall within the contemplation of the employer when he enters into the contract of employment. It is contended, on the other hand, that this reasoning fails entirely to take into account the fact that the workmen's compensation laws are remedial acts, and that for the privileges derived from these acts an employee must surrender his common-law rights under which, in the estimation of an injured man's damages, his wages merely form one of the "elements" going to make up his total damages. It is further maintained that the better plan for the computation of wages where a workman has been employed at concurrent employments would be to take only the wage earned in the employment in which the injured man was working at the time of the accident and compute it on a full-time basis as if the workman had devoted his entire time to the occupation in which he was injured; by this method the employee's rate of wages would be used, as distinguished from his "earnings" in the particular employment.

¹ *Klietz v. Village of North St. Paul*, Minnesota Department of Labor and Industries, Bul. No. 16, p. 57.

² *Kinsmen v. Hartford Courant* (Conn.), 106 Atl. 562.

³ *King's Case* (Mass.), 125 N. E. 153.

MINORS AND LEARNERS.

The seventh and last group includes those States whose laws or commissions have made some specific provision or ruling for the computation of the future earnings of minors or learners who become injured in the course of their employment. At common law in a suit for damages for injuries to minors it was permitted to take into consideration the probable future earnings of such minor in arriving at the damage sustained by him as a result of such injuries. This principle of making allowance for the probable future increase in the earnings of minors and learners has been recognized by 15 States⁶ in the provisions of the workmen's compensation laws. In Nevada, according to the custom of the commission, a minor is allowed the maximum compensation. There are two general methods of arriving at a minor's or learner's average weekly wage. These are: (1) To compute the minor's wage upon what his earnings probably would have been had he worked until he became 21 years of age; and (2) to compute the minor's or learner's wage on the basis of wages received by adults or experienced persons. Eight States⁷ employ the first of these two methods. In California the minor's injuries must be permanent before he can be given special consideration, and if it should develop that his probable future earnings can not be determined with any degree of accuracy the law fixes a minimum earning capacity of \$3 per day for a six-day week. In interpreting the statute of California the courts have ruled⁸ that the probable wages of a minor when he arrives "at" the age of 21 must be used, and that it was not justifiable to compute the wages of such minor "within a reasonable period after attaining the age of 21 years." In contrast to this decision is one rendered by the Maryland commission, in which it was held⁹ that the wages of a young man in his twenty-first year, who was temporarily employed in a lumber plant at \$48 a month preparatory to his becoming a salesman at \$75 a month, and who was killed while working in the plant, should be computed on the basis of the increased earnings. In Manitoba and Ontario the boards have limited the provisions of the laws so that they are made to apply only to permanent disabilities.

The States of Georgia, Illinois, Iowa, and South Dakota, according to the provisions of the statutes, employ the method of computing minor's or learner's wages by using as a basis the wages of an adult or experienced person in the same occupations. California, Massachusetts, and New York have also adopted this method in actual cases involving injuries to learners. Thus in California the commission held¹⁰ that the wages of a student motorman of a street railway who was injured while learning should be computed on the basis of what they would have been after he had completed his apprenticeship.

The method employed in Connecticut is quite distinct from either of the foregoing methods except in the case of learners, where the

⁶ British Columbia, California, Colorado, Connecticut, Georgia, Illinois, Iowa, Manitoba, Maryland, Massachusetts, New York, Oklahoma, Ontario, South Dakota, and Wisconsin.

⁷ British Columbia, California, Manitoba, Maryland, Massachusetts, New York, Oklahoma, and Wisconsin.

⁸ *Dean v. Western Pacific R. Co.*, 57 Cal. Dec. 500.

⁹ *Chambers v. Kendall Lumber Co.*, Maryland Workmen's Compensation Cases, vol. 1, p. 32.

¹⁰ *Boyce v. Pacific Gas & Electric Co.*, California Industrial Accident Decisions, vol. 6, p. 147.

wage is that of an experienced person in the same occupation. In the case of minors, however, the average weekly wages are computed in the usual manner, by dividing the previous six months' earnings by 26 and adding to the result so obtained an arbitrary amount equal to 50 per cent of such average weekly wage.

The law of Colorado provides for the computation of a minor's average weekly wage on the basis of what his earnings would have been had he not been injured, but qualifies this by stating that the probable increase in earnings can be computed only over such period as compensation payments are being made. This rule was also adopted by a New York court in a case involving a temporary disability. The minor had injured the tips of his fingers, resulting in a temporary disability, and the commission in awarding him compensation computed his wages on the basis of what they would have been when he arrived at the age of 21 years. The court held ¹¹ that as the boy would become well again before he became of age, this method was not proper; "however, any probable increase of earning capacity under normal conditions during the period of such disability might doubtless properly have been taken into account."

WHAT IS INCLUDED IN THE TERM "WAGES."

In addition to the problems involved in the computation of the average weekly wages, the bodies administering the workmen's compensation laws are also required to pass upon what items shall be permitted to constitute a part of the wages. Besides the regular wages paid to an employee there are a number of other items of value paid to him by his employer, or which come to him from the nature of his employment, which go to make up his total earnings on a particular job. These extra or additional items of income may be grouped into six classes, namely, overtime earnings, board and lodging, etc., tips, gratuities, supplies, and tools, etc., and special expenses incurred by the nature of the employment. Each of these classes will be briefly discussed in the order named, and the attitude of the respective States as to their inclusion or exclusion will be indicated.

Of the 23 States whose laws, rulings, or decisions have dealt with the question of the inclusion or exclusion of overtime earnings in computing the average weekly wages ¹¹ ¹² States require that such earnings shall be included and ¹² ¹³ require that they shall be excluded. Of the States that include overtime earnings in the computation of the average weekly wages only one, California, is required to do so by statutory provision. Connecticut has included such earnings in an actual case ¹⁴ coming before one of the commissioners, while all the remaining States have included such earnings by interpretations of the respective commissions. Four of the States that have excluded overtime earnings from the computation of average weekly wages, Idaho, Maryland, New Jersey, and Oregon, have done so by rulings of the administrative commissions, while the remainder of these States are required to exclude such earnings by the

¹¹ *Ide v. Faul & Timmins* (New York), 179 App. Div. 567.

¹² California, Connecticut, Manitoba, Massachusetts, Michigan, Minnesota, Nevada, Ontario, Vermont, Virginia, and Wisconsin.

¹³ Delaware, Georgia, Idaho, Illinois, Iowa, Maryland, Montana, Nebraska, New Jersey, Oregon, South Dakota, and United States.

¹⁴ *Caron v. Shartenberg & Robinson Co.*, Connecticut Workmen's Compensation Cases Digest, vol. 2, p. 32.

provisions of the statutes. In connection with the rulings in Maryland, New Jersey, and Oregon, it is to be noted that if overtime earnings predominate or are paid so frequently as to become a regular part of the earnings, then they are to be regarded as a part of the regular wages. Although Montana does not permit the inclusion of overtime earnings in the computation of the average weekly wages for the purpose of determining the compensation, its law specifically requires such earnings to be included in the employer's pay-roll totals upon which his insurance premiums are based. It may also be pointed out that many of the States that exclude overtime earnings from consideration take absences from work into account in determining the basis for computing earnings.

The theory upon which overtime earnings are excluded seems to be simply that they are not "regular" but are of the nature of additional income and can not therefore be properly included in arriving at an "average" wage. Yet, as will be seen later, some of these States which have excluded overtime earnings are in the habit of including tips, board and lodging, and gratuities or bonuses. Some hold that the better reasoning would be that overtime earnings should be included as being properly a part of the employee's wages. It is also pointed out that as the time of labor increases, the fatigue occasioned by such labor also increases and workers are inclined to become less attentive to the observation of safety rules and thus increase the hazard to which they are exposed. Also when working overtime they are exposed to the hazards of the occupation for a greater period of time, and therefore the earnings during such overtime period should be regarded as a proper part of the employee's total earnings.

It is pretty generally accepted that board, lodging, fuel, housing, rent, and the like are proper items to be included in the computation of the average weekly wages, and all of the 33 States¹⁵ which have legislated or ruled on this subject have required or permitted the inclusion of such items. In Connecticut, Maryland, Massachusetts, and Minnesota¹⁶ this inclusion was effected by decisions of the courts or commissions in actual cases, in Illinois, Iowa, Kentucky, Manitoba, Michigan, Montana, Nevada, and Ontario by rulings of the administrative bodies, and in the remainder of the States by legislative enactment. In most cases the board, lodging, etc., is reckoned at its reasonable or market value, but in Delaware, Maryland,¹⁷ and Nebraska such items are excluded unless their money value has been fixed at the time of the hiring of the employee. The law of New Jersey states that board and lodging shall be considered as part of the wages if included in the contract of hiring, and where such contract fails to name the value of such advantages the law fixes their value at \$15 a week, but in Pennsylvania the law permits these advantages to be included in the wages at only 50 cents a day for lodging or \$1 a day for board and lodging. Notwithstanding this limitation in the law, the Pennsylvania board held in one case¹⁸ that

¹⁵ Alabama, California, Colorado, Connecticut, Delaware, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Manitoba, Maryland, Massachusetts, Michigan, Minnesota, Montana, Nebraska, Nevada, New Jersey, North Dakota, Oklahoma, Ontario, Oregon, Pennsylvania, South Dakota, Tennessee, Texas, Vermont, Virginia, Wisconsin, and United States.

¹⁶ *State v. Sibley County District Court*, 128 Minn. 486, 151 N. W. 182.

¹⁷ *Picanardi v. Emerson Hotel Co. (Md.)*, 108 Atl. 483.

¹⁸ *Kelly v. Silverman*, Pennsylvania Workmen's Compensation Board Decisions, vol. 4, p. 269.

where at the time of hiring it was agreed that the workman should receive \$10 a week in cash, and room, with three meals a day, amounting to the value of an additional \$10 a week, his wages should be computed on the basis of \$20 weekly earnings. In Massachusetts it was held¹⁹ that where a man was hired for \$5 a week and meals it was not improper to value his meals at \$8 a week.

With regard to the matter of the inclusion or exclusion of tips, only two States have enacted legislation; one of these, Kansas, has a drastic antitipping law which accounts for its attitude on this point; the other, Nebraska, includes tips only when it is understood between the employer and employee that they shall form a part of the wages. In addition to these two States, eight others²⁰ have by commission rulings refused to regard tips as a part of a workman's wages. In 13 States²¹ the commissions have ruled that tips may properly be included in the wages. The California courts²² have held that tips may properly be included as a part of the wages as being "other advantages" allowed by law to be included. The question of the inclusion or exclusion of tips has come before the courts of New York a number of times. In some cases the tips were allowed to be included, but in others they were excluded. Thus the court in the case of a wagon driver²³ who received tips for hanging up the meat he delivered refused to permit such tips to be regarded as a part of his wages, because his employer had not been aware that he had been receiving tips for such services and because the granting of tips was not a customary thing in such employment. On the other hand, these courts have included tips as part of the wages of a summer-hotel waitress,²⁴ of a taxicab chauffeur,²⁵ and of a Pullman porter. In the latter case the court said:²⁶ "The tips received by a Pullman-car porter are understood by the porter and the company to be a part of his 'wages' and can be considered as such in determining the compensation to which he is entitled for his injuries." From these cases two controlling principles have been developed which have been made the basis for including or excluding tips. These are (1) In order that tips may be included as part of the wages the employer must know of them and recognize the fact that the employee receives them; and (2) The tips must be a usual thing in the business of the employee.

Gratuities as distinguished from tips partake more of the nature of gifts or bonuses from employers to their workmen and are usually granted as a reward for long and faithful service or for increased efficiency and output. In the States of Colorado, Delaware, Kansas, Nebraska, and Pennsylvania the law specifically prohibits the consideration of gratuities as a part of the wages, although in Pennsylvania this has been held not to apply to bonuses. In addition to these States, eight others²⁷ have by rulings of the administrative

¹⁹ *Driscoll v. London Guarantee and Accident Co.*, Massachusetts Industrial Accident Board Cases, vol. 2, p. 576.

²⁰ Iowa, Minnesota, Montana, New Jersey, Ohio, Pennsylvania, South Dakota, and Vermont.

²¹ California, Connecticut, Idaho, Illinois, Manitoba, Maryland, Massachusetts, Michigan, Nevada, New York, Ontario, Virginia, and Wisconsin.

²² *Hartford Indemnity Co. v. Industrial Accident Commission* (Calif.), 183 Pac. 234.

²³ *Begendorf v. Swift & Co.*, 183 N. Y. Supp. 917.

²⁴ *Perlis v. Lederer*, New York Department of Labor Special Bulletin No. 95, p. 156.

²⁵ *Sloate v. Roenester Taxicab Co.*, 221 N. Y. 491.

²⁶ *Bryant v. Pullman Co.*, 177 N. Y. Supp. 488.

²⁷ Connecticut, Idaho, Iowa, Massachusetts, Minnesota, Montana, Nevada, and New Jersey.

commissions excluded gratuities from consideration as wages. In Connecticut as in Pennsylvania the commissioners have ruled that this exclusion does not extend to bonuses. Ten States²⁸ have by the rulings of their commissions included gratuities in the computations of wages of injured workmen. In Oregon such gratuities must be in the nature of "regular bonuses" to be included, and in Maryland, Virginia, and Wisconsin gratuities will be included only when they are understood by the employer and employee to be a part of the earnings; but in New York it has been held²⁹ that bonuses are wages whether or not paid regularly. It has also been held³⁰ in New York that the racing winnings of an automobile driver should be included as a part of his wages.

It is the custom in some States, especially where the mining industry is carried on to any extent, for employers to deduct from the wages of their employees their union dues and the value of tools, supplies, materials, repairs, and labor furnished to them by the employer. When a man becomes injured and entitled to compensation it is often necessary to determine whether his gross earnings or his net earnings after deducting the above items are to form the basis of such compensation. In two States, Colorado and Delaware, these items are required by law to be excluded from the wages and in nine³¹ others these items are excluded by rulings of the administrative commissions. Eight States³² permit these items to be computed as part of the wages. In a case where it was sought to deduct from the wages of a miner the value of union dues, powder, carbide, and other items paid for or supplied by the employer to the miner, the Supreme Court of Illinois has held³³ that such items could not be deducted, and that the word "earnings" could not be held to mean "net earnings" unless such qualification appeared in the statute. A similar decision³⁴ was rendered by the Pennsylvania courts, which held that these items can not be deducted from the wages unless there is an express contract between the employer and employee permitting such deductions.

By "special expenses incurred by the nature of the employment" is meant such allowances as are made to traveling salesmen, field agents, and the like, who are paid an allowance to cover the cost of their transportation and other incidental expenses. As a rule these expenses are paid in addition to salaries, or the salaries are increased sufficiently to cover them. With the exception of the States of Maryland, Michigan, Montana, and Virginia all the compensation States have excluded such items as these from the computation of the wages, and even in Maryland and Virginia their inclusion is permitted only where the contract of hire expressly calls therefor. In Manitoba such items are also excluded except such portions as are expended for board. Eighteen States³⁵ effect this exclusion by specific

²⁸ Illinois, Manitoba, Maryland, Massachusetts, Michigan, New York, Ontario, Oregon, Virginia, and Wisconsin.

²⁹ *Clara v. Solvay Process Co.* (N. Y.), 184 App. Div. 629.

³⁰ *Dearborn v. Pegeot Auto Import Co.* (N. Y.), 175 App. Div. 959.

³¹ California, Idaho, Iowa, Manitoba, Maryland, Minnesota, Nevada, Ontario, and Vermont.

³² Illinois, Massachusetts, Michigan, Montana, Pennsylvania, South Dakota, Virginia, and Wisconsin.

³³ *Springfield Coal Mining Co. v. Industrial Commission* (Ill.), 126 N. E. 133.

³⁴ *Reitmeier v. Cox Bros. & Co. (Pa.)*, 107 Atl. 739.

³⁵ Alberta, California, Georgia, Hawaii, Idaho, Illinois, Iowa, Kansas, Maine, Manitoba, Nebraska, New Jersey, Ontario, Pennsylvania, Rhode Island, South Dakota, Texas, and Vermont.

provisions in the laws, while four³⁶ have done so by commission ruling.

From this survey it is apparent that there are a large number of different methods for computing the average weekly wages in the various States, some established in the laws, some laid down in the rules of the administrative commissions, and others the outgrowth of custom and practice in actual cases. The application of these methods to actual cases has not always been consistent. Even where the provisions of the laws in different States are identical their actual application to specific cases is often very different in effect. This suggests the desirability of a standardization of methods along as simple lines as possible, covering each particular class of cases. Many States have already attempted this, some with a good degree of success, but the wide variety of methods disclosed suggests the need of simplification and uniformity in order to secure to injured workers and their dependents a prompt and full settlement of their claims.

DESCRIPTION OF CLAIM PROCEDURE IN EACH STATE.

EXCLUSIVE STATE FUNDS.

BRITISH COLUMBIA.

The British Columbia workmen's compensation law is compulsory both as to compensation and insurance. Only enumerated hazardous employments are covered by the act. All employers must contribute to the State accident fund, which is administered by a workmen's compensation board of three members. The members of the board are appointed by the lieutenant governor for a term of 10 years. The board is authorized to appoint its own officers and employees and to fix their salaries. The tenure of office of such employees is subject to the pleasure of the board. The administrative expenses of the board are paid out of the premiums contributed by the employers except the salaries of the board members which are paid out of the consolidated revenue fund of the Province. These expenses are prorated among the several industry classes according to the amount of premiums collected and losses paid. In addition to administering the compensation provisions and the accident fund the board is charged with the enforcement of the safety laws. The board, however, has no safety inspectors of its own, the main inspection work being performed by the inspectors of other Government departments, who are responsible to the board. The board has final jurisdiction over all compensation matters, no appeal to the courts being permitted. Compensation claims are adjudicated on the basis of written reports from employer, attending physician, and workman, supplemented by examinations and investigations.

CLAIM PROCEDURE.

Accident reporting.—Only employers subject to the act are required to report accidents, but all their accidents are required to be reported. The statutory waiting period is three days. Noncom-

³⁶ Massachusetts, Minnesota, Nevada, and Wisconsin.

pensable accidents (those lasting less than three days) are reported on a different and shorter blank than that for compensable accidents.

When the report of an accident is received it is indexed in a book in alphabetical order by name of employee. (Originally a card system was used but it was abolished because it was too cumbersome.) The report is then given a claim number, or if it has already been reported, the claim number previously assigned. The employee's index register contains: Date first report received, claim number, name of workman, part injured, name of employer, and date and place of accident, and a notation as to which forms have been received.

The report is also indexed in an employers' register, in alphabetical order by name of employer. This register contains: Claim number, date of accident, name of workman, and part injured. The purpose of this register is to check double names, and to note whether the workman was previously injured and the number of accidents by firms. Each report is acknowledged by card. A summary sheet containing a synopsis of the essential facts is then made out.

Missing reports are requested. If the accident occurred over seven days before receipt of first report the missing reports are requested immediately. If less than seven days have elapsed the report is placed in a monthly follow-up file under the day of the month upon which it was received. Two follow-up requests are made at 10-day intervals. Before a claim can be acted upon it must have four reports—employer's report, workman's claim, physician's first report, and physician's progress report. If the missing reports have not been received at the end of 30 days the claim is put into a special correspondence file which is divided into three sections: (1) Claims awaiting physician's progress reports; (2) those having no workman's claim; and (3) all others. The follow-up system for these claims is by cards. After two further requests the claims are turned over to a claim agent, who determines what further action to take. If the claim is incomplete because the workman has made no application the case is placed in a suspended file for one year, after which it is outlawed.

The noncompensable accidents, those of under three days and involving no medical costs, are filed in alphabetical order by name of workman by month.

When the claim is complete it leaves the assembling department and goes to the adjuster, who classifies the accident, i. e., assigns it to the proper industry classification, examines the reports, and computes the amount of compensation.

The claim then goes from the adjuster to the medical adviser, who examines the claim from the medical viewpoint—time between accident and consulting physician, length of disability, degree of permanent partial disability, quality of service furnished, medical bills.

From the medical adviser the claim is transmitted to the secretary who checks the classification. The secretary has supervision over permanent partial disability ratings. He determines the degree of disability from a permanent disability schedule based upon the recommendation of the medical adviser.

From the secretary the claim goes to the accounting department where the compensation checks are drawn. Before the checks are sent the employer is notified of the award. Formerly the check

was held five days to allow the employer to protest the award, but this practice was abolished in 1920. The claim then goes to the statistical department. The list of claims is sent to the board for approval and then to the claim agent for final review, especially as to the legality of the claim. Payments on a claim are usually made every 30 days, but in some cases more frequently.

The board sees only the claims which need special consideration. Each member examines them separately but the decision is made by the board as a whole. Claims are paid if a single member favors claimant.

Permanent disability ratings.—Unlike most of the American laws the British Columbia compensation act does not provide a definite schedule in case of permanent partial disabilities. The law merely states that the compensation shall be equal in amount to 55 per cent of the difference between the average earnings of the workman before the accident and the average amount which he is earning or is able to earn in some suitable employment after the accident, and that the compensation shall be payable during the lifetime of the workman. Under authority of this provision the board has formulated a permanent partial disability schedule. The amount of compensation is based upon loss of earning capacity, which is expressed in percentages of total disability. In arriving at this percentage of disability two factors are taken into consideration, (1) age, and (2) wage. According to the British Columbia schedule compensation increases with age, on the assumption that the workman's ability to adapt himself to changed conditions after the injury decreases with age. On the other hand, compensation decreases with wage on the theory that the greater the wage the greater the mentality of the worker and consequently the greater his adaptability to meet changed conditions. The amount of compensation for permanent partial disabilities is computed as follows: The monthly compensation rate for total disability is first obtained by multiplying the average wages by 55 per cent. This rate is then multiplied by the percentage of disability as shown by the partial disability schedule, which gives the monthly compensation rate for the particular injury under consideration. This rate is then multiplied by the life expectancy at the age at the time of the injury. The same rate is also multiplied by the life expectancy at the age of 40. One-half of the sum of these two products is the amount awarded. If the percentage of disability is less than 10 per cent the amount is paid outright in a lump sum; if more than 10 per cent the award is paid in monthly installments. Compensation is also allowed for temporary total disability during the healing period, in addition to the amount provided for the permanent disability. Functional disability only is taken into account in determining the degree of disability. This is based upon the recommendations of the board's medical adviser.

Medical service.—Full medical attention is provided for under the act. This service may be furnished by the board or by the employer through the contract hospital system. All employees of employers not under hospital contract are required to contribute one cent a day for medical aid. These contributions are deducted from the employee's wages and transmitted to the board by the employer.

The amount thus contributed fails to defray the whole medical costs by about \$25,000. The remainder is borne by the accident fund. The board does not favor the hospital contract system, and has gradually reduced the number of such hospitals by withholding approval. Contract hospitals, as a rule, furnish inferior service. The injured workman is granted the privilege of selecting his own physician, but the board reserves the right to order a change of physicians if such action is deemed necessary.

The medical department of the board consists of two medical referees and several clerks. It is the duty of the medical referees to examine the claimants; to estimate the probable extent of disability; to determine the degree of permanent partial disability; and to pass upon the quality of the medical service furnished and the reasonableness of medical bills.

ACTUARIAL AND AUDITING DEPARTMENT.

All employers coming within the industries enumerated in the act must contribute to the accident fund. Only hazardous occupations in the enumerated hazardous industries are covered, but hazardous occupations in nonhazardous industries are also included if covered by the act.

Classifications and rates.—The industry classifications are provided for in the act, subject to modification by the board, but the insurance rates were determined by the board from the experience of other States and Provinces. At present there are 19 industry classes, having 259 subclasses. For psychological reasons the rates were purposely placed higher than was thought necessary to carry the hazard. Employers are better pleased if the cost is less than anticipated.

Assessments are levied quarterly. The number of assessments actually called for is determined at the close of the year and is based upon the condition of the fund for each class and the accident losses during the year. As a rule, only about two quarterly assessments are made annually. Consequently, the actual rates are one-half of the basic rate. Each class carries its own losses. The whole fund, however, is available in case a class is temporarily insolvent or overdrawn. Each class is divided into subclasses based upon their hazard as related to the hazard of the class. It is the aim of the board to keep a substantial balance in each class. No record of incurred losses by year of occurrence is kept. Consequently, it is impossible to correlate the losses and premiums for a given period. Whether the amount in the current fund is sufficient to take care of all accidents to date is not absolutely known, though the fund is probably more than adequate. The premium income for the year 1920 was \$1,766,879.

Reserves.—Reserves are set aside in death and permanent disability cases but no account is taken of the outstanding and open claims. Reserves in death cases are based upon a combined mortality and remarriage table, the present worth being discounted at five per cent. The reserve table for children takes into account the mortality rate to 15 years. For permanent total disabilities the American Experience Table is used. Fifteen thousand dollars has been set aside each year for a catastrophe fund. A catastrophe, however, is defined as an act of God and not due to the hazard of the

employment. The total catastrophe surplus as of December 31, 1920, was \$49,431.

Dividends.—No dividends are declared by the fund. It is the policy of the board to collect only sufficient premiums to meet cost of accidents as they occur.

Assessments.—Employers, when first coming under the act or at the beginning of the year, are required to submit an estimated pay roll for one year. Assessment for one-fourth of the amount is levied at the basic rate for the classification. Thereafter quarterly assessments are levied when needed. The number of assessments are determined by the condition of the fund and the accident experience during the year. At the close of the year a pay-roll audit is made by the board's auditors and the necessary adjustments made.

Collections.—The board allows 30 days in which to pay assessments. If they are not paid within 30 days a 5 per cent penalty is added; if not paid within another 30 days, a statement of indebtedness is filed in court, which acts as a judgment against the property of the employer and has precedence over all debts except taxes. During the three years 1917 to 1919, the uncollectible premiums amounted to only \$308.47.

Firm record cards.—Separate record cards (one for premiums and one for losses) are kept for each firm. The premiums are posted on these cards from the assessment slips and are again entered when paid. Adjustments are entered at the end of the year. The losses are entered on loss cards from the transmittal sheet.

Class ledger.—Payments on claims are listed on the transmittal sheet by classes and kind of payment (whether for partial disability, fatality, etc.); assessment receipts are also listed by classes, the totals in each case being posted to the class ledger. These sheets also serve as a preliminary cash book, and totals are posted to the permanent cash book.

Pension lists.—Separate pension cards are kept for fatalities, permanent total disabilities, and permanent partial disabilities. Pensions are paid monthly, half of them being paid on one date and half on another.

STATISTICAL DEPARTMENT.

One statistical clerk does all the statistical work. Only closed compensable cases are tabulated. These cases are tabulated by the year in which the case is closed, regardless of the date of occurrence of the accident. In fatal and permanent partial disability cases the date of the award is the date the case is closed. The data on the reports are recorded on cards—a separate card for each fatal, permanent partial disability, and temporary disability accident. From these cards the statistical tables are constructed.

SAFETY WORK.

The safety work of the Province is under the supervision of the workmen's compensation board. One member of the board devotes all his time to safety matters. The board has issued safety standards and rules governing a number of industries. The board has no inspectors of its own, except that one commissioner makes inspection trips. The main inspection work is done by the Government inspectors (mines, factory, boilers and machinery, electric energy, and railway) who cooperate with the board. The inspectors send their

reports and orders to the board, and the employers must report to the board when the inspector's orders have been complied with. If they do not the board has power, which it exercises, to prevent operation of the dangerous machinery, etc. One member of the board gives personal attention to all eye injury cases, permanent partial disabilities, and certain other injuries, which are examined from the standpoint of accident prevention.

NEVADA.

The workmen's compensation law of Nevada is elective as to compensation and compulsory as to insurance. All industries except farm labor and domestic service are covered. Electing employers must insure with the State fund, neither private casualty companies nor self-insurance being permitted. The compensation act, including the State fund, is administered by an industrial commission of three members appointed by a board composed of the governor, attorney general, and inspector of mines for a term of four years. The commission is authorized to appoint its own employees subject to the approval of the governor. The administrative expenses of the commission, except rent and printing, are paid out of the premiums of the fund. The commission performs no safety work, this being a function of the labor commissioner and mining inspectors.

The commission adjudicates compensation claims primarily upon written reports from the employer, physician, and injured workman. Appeal may be had from the commission's decision to the courts, but a jury trial is permitted.

ACCIDENT REPORTING AND CLAIMS.

Accident reporting.—Only employers electing to come under the act are required to report accidents, but all their tabulatable accidents are reported. The statutory waiting period is one week. Four reports are necessary to complete a case—employer's first report, workman's claim, physician's first report, and physician's supplemental report. If the first report received is the workman's claim the other reports are requested; otherwise, the first report is placed in a monthly follow-up file and the other reports are requested every two weeks until received.

The commission keeps five card-index records as follows: (1) Employer's index, filed by firm number, which shows all the accidents for each firm; (2) employee's accident record, filed by name of employee, each accident being given a number; (3) physician's report index, filed by name of physician, which shows all the accidents for each physician; (4) employee's claim record (compensable accidents), filed by name of employee, each claim being given a number; (5) accident and claim record, filed by claim number. A summary sheet containing a synopsis of the case is made for each claim.

Lists of cases for payments are prepared twice a week. Payments on a claim are made monthly. The checks are signed by two commissioners and countersigned by the actuary. All reports (employer's, physician's, and workman's) must be received before payment is made, except in severe cases. A notice is sent to the workman with the check stating that he must, at the end of 30 days or at the termination of disability, furnish the commission with a

physician's statement of his condition. If no report has been received on the date due, another request is made.

There have been four cases of overpayment. The commission was reimbursed in three of these. The commission pays compensation directly to the workman in all cases. Compensation is not denied if the employer pays full wages during disability.

Hearings.—The commission adjudicates compensation cases upon the basis of written reports and the opinion of its medical adviser. Either party may appeal from the commission's decision to the courts. Jury trial is allowed. There have been four appeals by the injured workmen, but none by employers.

Medical service.—The commission has a medical adviser who devotes only part of his time to the work of the commission. Medical treatment must be furnished by the employer unless it is expressly stated that the commission shall furnish the same, in which event additional premiums are charged.

Many employers maintain their own medical and hospital service or contract with the hospital associations. The commission has supervision over such service and may order change of physician. The commission has in use a fee schedule which has been approved by the State medical society.

Permanent partial disabilities.—In permanent partial disability cases compensation is paid for temporary total disability during the healing period in addition to the amounts provided in the statutory schedule. The degree of disability in cases involving partial loss of use of a member is determined by the commission from the reports of the attending surgeon and the commission's medical adviser. The extent of permanent partial disability other than dismemberment is determined in from three to six months after the termination of temporary total disability.

ACTUARIAL AND AUDITING DEPARTMENT.

Rates and classifications.—The rates are not provided for in the law but are determined from the Nevada experience as far as possible. The National Workmen's Compensation Service Bureau's manual rates are used for minor classifications. Mining and ore reduction account for approximately 75 per cent of the premium income. There are 7 classes and 46 subclasses. The rates, however, do not cover medical benefits.

If the employer wishes to have the commission pay medical benefits he must so elect, in which case an additional premium is demanded. The medical rate depends upon the class, for mining it being three-fourths of the compensation rate, and for nonhazardous classes one-fourth of the compensation rate. The compensation and medical funds are kept separately.

Pay roll and premiums.—The pay roll is estimated for a six weeks' period and premiums based thereon are paid in advance. At the end of each month the actual pay roll is reported and the premium thereon sent in. The estimated six weeks' premium serves as a continuing advance deposit. Default on premium payment automatically terminates the insurance. Claims are not paid by the fund if the employer is in default on the premium at the time of the accident. The commission charges no minimum premium.

The commission has one traveling auditor, whose main duty is educational in character. The employer's pay roll is not audited as a rule. The commission accepts the employer's statement of pay roll and classification. The total premium income for the year 1920 was \$338,184.

Catastrophe surplus and reserves.—The total surplus of the fund as of June 30, 1920, amounted to \$198,686, of which \$86,740 constituted the catastrophe reserve.

Dividends.—A dividend of \$131,670.80 has been declared, covering the first five years' operation of the act. The dividend percentage is based upon and varies with the experience of the class, varying from 0 in class 2 (mining) to 46 in class 5 (public utilities). All members of the class receive the same percentage of dividend.

Accounting.—(a) Premiums: A separate account is kept for each firm of compensation premiums and of medical premiums. This account shows the amount of premiums paid, the amount due, and the balance to the credit of the employer. The amount due at the end of the fiscal period is estimated. The class ledger shows the pay roll by classes and the rate, from which the premiums may be determined.

(b) Losses: A list of claims is made out semiweekly on a sheet, which with the claims is approved by the commission, then posted to the voucher record, and from the voucher record posted to the firm loss ledger. The voucher record shows disbursements by class and by type of injury (death, permanent partial, permanent total). A card showing the losses paid and incurred for each claim is kept in the claim department.

Pensions.—Pensions for fatal and permanent total disability cases are recorded in a book, which shows the amount of award and monthly payments to date. Pension payments are made monthly. Affidavits from dependents showing change in status are required every six months.

STATISTICS.

A statistical card showing all accidents and compensation data is made out when the first payment is made. These cards are filed by claim number. At the end of the fiscal period they are divided into classes. An estimate is then made of the outstanding claims. In its statistical tabulations the commission follows the recommendations of the committee on statistics of the International Association of Industrial Accident Boards and Commissions.

SELF-INSURANCE.

Self-insurance is not permitted; all employers accepting the compensation act must insure in the State fund.

SAFETY WORK.

The commission performs no safety work, this being a function of the labor commissioner and mining inspectors.

NORTH DAKOTA.

The North Dakota workmen's compensation law is compulsory as to both compensation and insurance. All industries except agriculture and domestic service are covered. All employers must insure

with the State accident fund, neither private insurance carriers nor self-insurance being permitted. The act is administered by the workmen's compensation bureau of the department of agriculture and labor. The bureau is composed of the commissioner of agriculture and labor, the commissioner of insurance, and three workmen's compensation commissioners who are appointed by the governor for a term of five years. The commissioner of agriculture and labor and the commissioner of insurance are ex officio members, the former being head of the bureau. The bureau is authorized to appoint its own employees, subject to existing laws regulating the selection, grading, and compensation of departmental clerks.

Administrative expenses of the bureau are paid out of the workmen's compensation fund, but the total expenses shall not exceed \$50,000 per year.

In addition to administering the compensation act the bureau is authorized to perform accident prevention work and to administer the State minimum wage law.

The adjudication of compensation claims is based primarily upon written reports from employers, physicians, and the injured workman. Appeal may be had from the bureau's decision to the court.

ACCIDENT REPORTING AND CLAIM PROCEDURE.

Accident reporting.—All employers in the State must report all disability accidents. The statutory waiting period is one week, but in case the disability exceeds one week, compensation is paid from the date of injury. The claim procedure and actuarial methods are based upon those of the Ohio fund, the Ohio actuary being also the consulting actuary for the North Dakota fund. In case of injury the employee must file a notice of injury and a preliminary application, and if the injury is a compensable one he must also file a supplemental application. These reports must be acknowledged before a notary. A report from the attending physician is also required. The applications received are examined by the bureau's medical director and if found correct a payment covering one week's compensation is sent. Subsequent payments cover two weeks. No payments are made until the attending physician makes a report on the case. Postal cards are sent to the attending physician every two weeks for a report, upon receipt of which payments are made.

Hearings.—Claims are adjudicated upon the basis of written reports from the interested parties. Appeal to the courts may be had from the decision of the bureau.

Permanent partial disabilities.—In case of permanent partial disabilities the law provides 5.2 weeks' compensation for each per cent of disability. The bureau is authorized to formulate a schedule and to determine for each permanent injury the degree of disability. The schedule established by the bureau provides a greater amount of benefits than is provided in any other State in the Union.

Medical service.—The bureau provides unlimited medical service to injured employees. The bureau has a part-time medical adviser, who examines claims and assists the commission in the solution of medical problems connected with the administration of the act.

CLASSIFICATIONS AND RATES.

The bureau is authorized to classify the industries according to hazard and to formulate rates therefor.

The present rates were established by the bureau's consulting actuary and are based upon the experience of other States. No merit-rating system has been put into effect as yet.

SELF-INSURANCE.

Self-insurance is not permitted. All employers under the act must insure with the State fund.

SAFETY WORK.

There is no safety or factory inspection law in the State, but the bureau is authorized to administer all laws and regulations requiring places of employment to be safe and to issue safety regulations whenever necessary. The bureau has ordered the installation of safeguards in some instances.

OHIO.

The Ohio workmen's compensation law is compulsory as to both compensation and insurance. All employments except those having less than five employees are covered by the act. All employers must insure in the State fund or provide self-insurance. Private casualty companies are not permitted to write compensation insurance business. The act is administered by an industrial commission of three members appointed by the governor for a term of six years. The commission is authorized to appoint its own employees, subject to the approval of the governor and the civil-service laws. The administrative expenses of the commission are paid out of the State treasury from moneys regularly appropriated.

In addition to administering the compensation act and insurance fund the commission is charged with the enforcement of all the labor laws of the State, including factory inspection, safety, woman and child labor, etc.

The claim procedure in State-fund cases is different from that in the case of self-insured employers, the claims being handled by different departments of the commission. The adjudication of the State-fund claims is based primarily upon written reports from the employee and attending physician and upon investigations and examinations made by the commission. In the case of self-insured employers compensable accidents are usually settled by voluntary agreements which must be approved by the commission. In disputed cases either party may file an application for a hearing with the commission. In both State-fund and self-insured cases appeal may be had from the commission's decision to the courts.

ACCIDENT REPORTING AND CLAIMS.

The accidents and claims of employers insured in the State fund are handled differently from those of self-insurers. Each is administered by a different department of the commission. The following account describes the claim procedure of the State fund:

Accident reporting (State fund).—Only employers subject to the act are required to report accidents, but all their compensable acci-

dents and accidents requiring medical aid must be reported. The statutory waiting period is one week. The following primary reports are required by the commission: (1) First notice of injury and application for medical expenses in noncompensable cases; (2) first notice of injury and preliminary application; (3) supplemental application with supplemental report of injury; (4) attending physician's report; (5) supplemental report of physician.

When the first reports of a compensable accident are received, they are arranged by the mailing department in alphabetical order by name of employer. The risk number is assigned to each report from the card index of employers, after which the report is sent to the actuarial department to have the manual number assigned. It is then returned to the claims division, where a claim number is assigned. It is examined as to completeness, and indexed in an employees' index book in alphabetical order by name of employee. The index shows name of employee, risk and claim number, and date of accident. The report is then recorded in a docket book which shows the name of the claimant, the name and business of the employer, the date of filing, and the date of the first notice. It is then transmitted to a clerk, who requests the missing reports including the supplemental application of the claimant and the physician's report. A card acknowledgment is sent to the employer, which also requests him to report any irregularities in the claim.

The report is again sent to the actuarial department where it is coded and a card punched as to risk number, manual number, and claim number. From the actuarial department it goes to the filing division of the claims department where the cases are filed in numerical order by claim number. The filing department receives the supplemental reports and prepares the cases for the examiners. Incomplete cases are gone over once a month and follow-up letters sent out requesting missing reports. After 90 days, if no application is received, the case is sent to the "disposed of" file. Doctors' bills are allowed after 90 days if no application has been received.

The case then goes to the medical department and is passed upon by the medical adviser from the medical standpoint only and returned to the docket clerk. Noncompensable cases do not go to the medical department but are transmitted directly to the examiner. The docket clerk completes the docket, entering in the docket book the date the supplemental application was filed and the date of the physician's report. The docket clerk then transmits the case to the examiners, who examine it as to wages, coverage, nature of injury, etc., after which it is sent to the claim-sheet writer, who makes a record of proceedings, or summary of the case; then to checkers who check the work of the examiners and the record of proceedings; then to a clerk who arranges the cases in numerical order by the claim number and who approves each case in the name of the commission by attaching a commissioner's and the secretary's signatures. This form of approval is called the "hearing" by the commission.

The case itself now goes to the files and the summary claim sheet or record of proceedings to the auditing department where payments are made, but only for the period stated by the medical department, after which the case is reexamined and the same procedure as outlined above followed.

The compensation checks which are drawn upon the State treasurer are written in the auditing department. The State treasurer notifies the commission when the checks are cashed. The claim sheet is then transmitted again to the actuarial department and the amounts paid out as shown by the claim sheet are recorded on Hollerith cards. The employer is notified of each payment made.

Accident reporting (self-insurers).—The handling of accident reports and claims with respect to self-insurers is under the supervision of a separate department of the commission and the procedure is entirely different from that in State-fund cases. In permanent disability and fatal cases the injured workman, instead of making a claim, enters into an agreement with his employer. In temporary disability cases the employer reports monthly as to the amount of compensation paid.

The following reports are required in completing the different classes of claims under the self-insurance system:

Injuries causing disability of seven days or under are reported directly to the actuarial department, whereas injuries causing disability of over seven days are reported to the claims department.

In temporary total disability cases the necessary forms for filing such a claim are: First notice of injury; monthly report, to be filed each month in cases in which the temporary total disability exceeds one month's duration, showing the amount of compensation paid; and final report, to be filed upon completion of payment of compensation for temporary total disability.

In cases involving both temporary total and permanent partial disability the required forms are: First notice of injury; monthly report, to be filed each month in cases in which the temporary total disability exceeds one month's duration; agreement as to compensation for permanent disability, to be filed upon completion of payment of compensation for temporary total disability; final report, to be filed with the agreement. No monthly report is required during the payment of compensation covering a permanent partial disability award.

In cases of death the forms are: First notice of death; agreement as to compensation on account of death; and final report. Monthly reports are not required during the payment of compensation covering a death award.

When reports are received by the mailing division the mailing clerk separates them into first notices, agreements, and final reports. The first notice is sent to the auditing department for examination as to coverage; then returned, arranged in alphabetical order by name of employee, numbered, indexed, and docketed. Card notices, giving claim number, are sent to the employer and the report is filed in a pending file. Upon receipt of the card notice the employer sends in a supplemental report. The first report is taken out of the pending file upon receipt of the first monthly payment report (in temporary disability cases) or upon receipt of agreement (in permanent disability and death cases). In temporary disability cases the reports are placed in a continuing file. When the final receipt in temporary disability cases or the agreement in permanent disability or death cases is received the case is turned over to the State-fund examiners to be examined.

If the agreement is not in accord with the provisions of the law the matter is taken up with the employer by correspondence and in the meantime the case is placed in a continuing file until further facts are obtained. If it is in accord with the law the agreement is approved and placed in the "disposed of" file. When the final receipt is received the case is taken out of the "disposed of" file and examined. If no supplemental reports are received, form letters are sent to the employer and to the claimant one month after receipt of the first notice. The continuing file is examined every three months and absence of the monthly report noted and requested.

In disputed cases the employer or claimant files application with the commission for a hearing. Ten days are allowed for answer by the other party, and another week for the first party to reply. Upon receipt of all the necessary forms the case is examined and prepared for hearing by the reviewer of the legal department of the commission, who makes a recommendation as to the disposition of the case. The case may be set for a hearing before the commission or given to a referee (there are three in the State) if circumstances demand the taking of evidence.

Hearings.—The adjudication of the State-fund claims is based primarily upon the written reports from the employee and attending physician and upon investigations and examinations made by the commission. In the case of self-insured employers compensable accidents are usually settled by voluntary agreements which must be approved by the commission. In disputed cases either party may file an application for a hearing with the commission. In both State-fund and self-insured cases appeal to the courts may be had from the commission's decision.

Permanent partial disabilities.—In permanent partial disability injuries compensation is paid for temporary total disability during the healing period in addition to the schedule amounts provided for permanent disability. Permanent partial disabilities resulting in the partial loss of use of a member are compensated on the basis of the subsequent wage loss.

Medical department.—The commission has a medical department consisting of the chief medical adviser and seven assistant medical advisers. It is the function of the medical department to examine claims and to pass upon the reasonableness of medical bills. The medical advisers travel about the State examining claimants.

ACTUARIAL AND AUDITING DEPARTMENT.

Classification and rates.—The commission has authority to classify the industries according to their hazard and to fix the rates of premiums. These rates have been sufficiently high to build up an adequate surplus.

The commission uses the old liability classification as a base. Originally there were about 1,500 classifications in use. These were reduced to 900 on January 1, 1920, but it is the intention of the commission to reduce this number still further, to about 400. Some additional classifications have been added under pressure from employers. Rates, as far as possible, are determined upon Ohio experience. On the smaller classifications, however, the rates are determined with reference to the pure premium developed in other

States. An experience-rating system has been adopted by the commission.

Premiums and pay roll.—Premiums are paid in advance for a six months' period upon the employer's estimated pay roll. Upon request by an employer for an insurance application, an application blank is forwarded to him by the actuarial department. This blank when filled out is returned by the employer to the auditing department. The auditing department investigates his previous insurance records, coverage, etc., and notes whether it is a new application or a reinstatement. The application is then forwarded to the classification section for assignment to classification and for initial rating. A premium advice is then prepared in triplicate. This premium advice contains classification of risk, rate, and amount of the premium. The third copy is kept in the actuarial department with the application. Copies one and two are sent to the auditing department for completion of pay-in order, which is made in duplicate. The second copy remains in the auditing department until the premium is paid; the original premium advice with the original pay-in order is forwarded to the employer, and a copy of the pay-in order is forwarded to the State treasurer. The employer returns the original premium advice, attaches a check to the pay-in order which is forwarded to the State treasurer, who mails a receipt direct to the employer and forwards the acknowledged pay-in order to the auditing department, showing the date of the premium payment. The auditing department then prepares a certificate of premium and forwards the same to the employer, together with accident report forms. The auditing department withdraws a copy of the premium advice, applies the risk number to the same, and completes the card index and ledger records. The original pay-in order is forwarded to the actuarial department, where it is checked with the original application, and after card indexes have been prepared the application and all attached papers are filed. The employer is now insured for a six months' period.

In the meantime, accident reports are received as noted under "Accident reporting and claims" (p. 97). The first report of the accident is transmitted to the actuarial department for assignment of manual classification number and then returned to the claims department. It is later again sent to the actuarial department, at which time a pending card is made which contains risk number, manual number, claim number, and date of accident. The accident report is again returned to the claims department and the pending card is filed, awaiting action of the commission on the claim. Later the claim sheet is forwarded to the actuarial department and the amount of the award, the doctor's fees, etc., as determined at each hearing, is recorded on the pending card which had previously been made out. The claim sheet is then returned to the claim department.

Two weeks before the expiration of the insurance period the auditing department sends out a blank pay-roll report, on which the employer reports his actual pay roll for the current insurance period. The same is returned to the auditing department by the employer and recorded. The pay-roll report then goes to the actuarial department for merit rating, which is based upon the employer's individual accident experience. The auditing department is advised of

the amount of any credit premium or debit charge applicable to the risk as determined by the accident experience of the employer. The pay-roll report is forwarded to the auditing department, which makes an adjustment of the actual premium found due as compared with the estimate of the premium at the beginning of the period. A settlement sheet statement is made out which sets forth the earned premium on the actual pay roll and the estimated premium of the subsequent insurance period, and the total premium due the fund to cover the adjustment of the insurance period just closed and the estimated premium for the subsequent six months. The pay-in order is prepared and forwarded to the employer with the original settlement sheet, and a copy of the pay-in order is sent to the State treasurer, who notifies the auditing department when the premium covering the same is received. A copy of the settlement sheet is forwarded to the actuarial department, and another copy of the settlement sheet together with the original pay-roll report is filed in the files of the auditing department, and a copy of the pay-roll report submitted by the employer is forwarded to the commission's traveling auditor in the proper district for auditing purposes.

Pay-roll auditing.—A field manager, with 22 agents, has charge of pay-roll auditing, investigation of fatal special claims, lump sums, rating, and nonpayment of premiums or failure to report pay roll. Each agent has a regular specified district. The fund aims to audit pay rolls once a year. However, many risks, especially the small ones or those irregularly located, have not been audited for several years. The fund has found difficulties in auditing contracting risks. Each pay-roll period audit usually results in additional pay roll of about \$1,000,000. Much of this under-reporting of pay roll is due to a misunderstanding of the law, failure to include executives, traveling salesmen, etc.

Record of awards.—Separate record cards are kept for deaths, permanent total disabilities, and indeterminates. Pending cards are filed by risk number. First awards (except for death and permanent total disabilities) as shown by claim sheet are punched on pending cards. Supplemental awards are punched on supplemental cards. Monthly recapitulation cards are made which contain amounts awarded on account of all accidents (except deaths and permanent total disabilities) for each risk during the month. These cards (in four colors—one for monthly cards, one for individual accidents, and one each for deaths and permanent total disabilities, which do not contain the compensation amounts, these being shown on the separate cards previously mentioned) are filed in numerical order by risk number and show the losses awarded since the beginning of the act. The total losses are obtained by adding to the awards shown on these cards the awards for deaths and permanent total disabilities and the outstanding claims from the indeterminates and from the open temporary cases on file in the claim department.

Record of premium income.—The pay-roll and premium income are punched on cards from the settlement sheets from the auditing department. These cards are arranged in numerical order by risk number. For rate-making purposes the risks are grouped under the proper classifications and totaled; losses are similarly classified and totaled. Classification pay rolls and losses are then correlated.

Employer's individual premium account.—Each employer's financial record is kept in a ledger, which shows by insurance period the amount of pay roll, premium, credit or debit charges, and the dates paid.

Payment of warrants.—Compensation checks are sent out the day following the receipt of claim sheets from the claims division. The claim sheet is checked against the premium payment record in order to ascertain whether premium payments of the employer are up to date, after which the checks are typewritten from the claim sheet. These checks, which are numbered in rotation, are recorded upon sheets containing the risk number, employee's name, amount, and check number, and then mailed. The State treasurer daily transmits to the commission a statement of checks cashed, which are recorded on the record sheet.

Pension awards.—Pension awards (in death and permanent disability cases) are kept in a special book. All pension cases are paid biweekly on Monday.

Reserves.—Claim reserves for outstanding losses are computed as follows: In case of death the present worth of the award is set aside, no reduction being made for mortality. In case of permanent total disability the present worth is based upon life expectancy. In case of permanent partial disability the full award is set aside, no reduction being made for mortality. The outstanding claims in case of temporary total disability are determined according to a reserve table formulated by the commission. The commission has also formulated a table for computing reserves for unreported and reopened claims.

The commission is also required to maintain a surplus of at least \$100,000. The present surplus is over \$1,000,000.

STATISTICAL DEPARTMENT.

The accident statistical work of the commission is done in the actuarial department. No accident statistics have been published by the commission for several years.

SAFETY WORK.

The industrial commission is charged with the enforcement of the safety laws of the State, the work being performed by the division of workshops and factories of the commission.

SELF-INSURANCE.

Self-insurers are required to furnish a financial statement and to deposit security in every case except those exempted by law (banks and public utilities). The minimum deposit must equal the semi-annual premium of the risk but be not less than \$15,000. The financial question only is taken into account in granting the self-insurance privilege. Questions of safety, hospital facilities, claim settlements, and so on are not considered. Injuries to public employees are paid out of a public fund contributed by the State and counties. Each county is responsible for its own accidents.

Employers carrying their own risk must contribute their proportionate share to the State-fund surplus.

Self-insurers are not permitted to reinsure their catastrophe hazard. This practice, if allowed, would increase the number of self-insurers and thus militate against the State fund.

There were 919 self-insurers as of December 31, 1919, of which about 250 were bona fide self-insurers; the remainder were reinsured in casualty companies under the former régime. The records of the bona fide and reinsured self-insurers have not been kept separately. A few employers have been denied the self-insurance privilege. Quite a number have had the privileges revoked because of failure to furnish bond, pay premiums, or furnish pay rolls, etc.

There have been no failures of self-insurers up to the present time.

ONTARIO.

The Ontario workmen's compensation law is compulsory, both as to compensation and insurance. Only enumerated hazardous employments are covered by the act. All employers except those in schedule 2 (municipalities and railroad, express, telephone, telegraph, and navigation companies) must contribute to the State accident fund. Employers under schedule 2 are individually liable, though they must deposit funds with the board, which pays the compensation direct to the injured employee. The compensation act, together with the fund, is administered by a workmen's compensation board of three members, who are appointed by the lieutenant governor in council and hold office during good behavior, subject, however, to retirement at the age of 75. The board may appoint its own officers and employees and fix their salaries, subject to the approval of the lieutenant governor in council. The tenure of office of all employees is subject to the pleasure of the board. The administrative expenses of the board are paid out of the consolidated revenue fund of the Province to the extent of \$100,000. If the expenses exceed this amount, such excess is paid out of the premiums.

The board is not charged with accident-prevention work, this being performed by other provincial departments and by employers' associations authorized by the compensation act. The board has final jurisdiction over all compensation matters, no appeals to the courts being permitted. Compensation claims are adjudicated on the basis of written reports from employer, attending physician, and workman, supplemented by examinations and investigations.

ACCIDENT REPORTING AND CLAIM PROCEDURE.

All disabling accidents or those requiring medical aid are required to be reported to the board by all employers within three days. Accidents of seven days or over duration are compensable. An abbreviated report form is used in reporting noncompensable accidents (those of under seven days).

When report or notice of accident is received, the index book and the employer's index card are searched to see whether the accident has been previously reported. A claim number and the employer's firm number are assigned to the report. It is then indexed in alphabetical order by name of workman. The index book contains the firm number and the claim number, in addition to the name and address of the workman. The report is also indexed on the employer's index card. The necessary forms are requested to complete the case, including, in compensable accidents, the workman's claim and the surgeon's first report. Both these forms are sent to the

workman, with an addressed envelope for return. In noncompensable cases an employer's abbreviated report is usually all that is required in addition to the doctor's account.

A card is made for each case for which forms have been requested. These cards contain the claim number, the name of the workman and the employer, and the number of the forms requested. Cards are filed in numerical order by the claim number. The folder containing the reports which have been received is also filed in numerical order by claim number. As the requested forms come in they are checked off on the card, and when all are received the card and folder are extracted from the files. If the forms are not received within a reasonable time—depending on the time necessary for mail to go and come—a second request is sent, and if no report from the workman is received the case is put in the closed file until such time as the workman makes a claim. Medical aid is paid if the accident is under the act.

A summary claim sheet is then made out, a shorter form being used for cases with medical aid only, and the date the employer's pay roll was received is entered on the summary claim sheet.

The case is then sent to the medical department for estimate of the period of disability. Only temporary disability is first considered. Determination of permanent disability is taken up later—at the end of the temporary disability period. The medical officer certifies on the summary sheet how many weeks' disability can be allowed according to the information on file.

The case then goes to the computer, who computes the amount of compensation from the facts given. If there is doubt as to the wages earned, a provisional rate is taken and later the amount of compensation is corrected in the light of subsequent facts. From the computer the case goes to the checker and then to the claims officer for examination and approval; then to the board for final approval. Ordinary cases are examined and approved by individual commissioners, more important cases by the chairman of the board, and permanent disability cases and others involving mooted questions by the whole board.

The cases ready for payment are then listed, with necessary particulars, on a large order sheet, which is signed by the chairman, and which goes to the finance department where the checks are made out. This order sheet is the authority to the finance department to issue and dispatch the checks. There is an individual record card for each firm which contains the assessment paid and the amount paid out for accidents. These cards are arranged according to the industrial classifications. The check number is entered on the summary claim sheet.

The case then goes to the medical aid division for approval of medical fees, after which the case folder is returned to the claims division and put in the "final" file if final payment has been made, and in the "day" file if a continuing case (see later description), while the order-for-payment sheet goes to the bookkeeping division. Here assessment and accident costs are kept by classifications, the totals of which should correspond with the totals of the individual employer's records in the finance department.

For the pension cases (death or permanent disability) a special card is used (in different colors), which is filed in a separate case.

Each payment is entered upon the card. Payments are made monthly and checks are made out each day for those coming due. All pension cases are also recorded in books—a separate book for deaths and for permanent disability cases.

"Day" file.—The continuing cases are placed in the "day" file—divided into six groups corresponding to the six days of the week. For example, each Monday the cases in the "Monday" group (accidents happening on Monday) are examined. Those which indicate that the period of disability as previously estimated by the medical officer is still unexhausted are computed and go through for payment. Others are turned over to the medical department for further consideration. Continuing cases are paid fortnightly if warranted.

"Adjustment" file.—Those cases which are being investigated or which are awaiting additional or supplementary reports are kept in a separate file called the "adjustment" file. They are filed by claim number (cards are not used for cases in "adjustment").

The fatal cases are handled separately from the general claims by the claims department. Statutory declarations are required from both the employer and the widow. A surgeon's report is also required. Inquiries are sent to the employer, the friends of the deceased, the boarding house or the former place of residence to locate dependents.

Hearings.—No formal hearings are held by the board. All cases are adjudicated upon written reports from the parties interested, and upon examination and investigation made by the board. The board has final jurisdiction over all compensation matters, no appeal to the courts being permitted.

Permanent disabilities.—A permanent disability is not considered until the temporary disability has terminated. The case is then given to the medical department for report on functional disability. After reports are obtained from the doctor, workman, and employer, and special examination is made by the medical referee or the medical officers of the board, it is placed in the "ready" file and then goes to the statistical department for permanent disability rating. If the case needs further investigation or examination the folder is temporarily placed in the "inquiry" file.

The board has adopted a schedule for the rating of permanent disabilities. This schedule is used chiefly as a guide, the actual rating depending upon the particular circumstances surrounding each case. The compensation rate is paid during life, a modified American experience table being used. Compensation for less than 10 per cent disability is paid in a lump sum; all other is paid monthly. Final approval is by the board.

Medical division.—The board has a medical department consisting of a chief medical officer and several assistants. The medical division passes upon medical questions, and claimants are examined by them or by medical referees where considered desirable. Workmen's traveling expenses are paid. Specialists are appointed to examine claimants in difficult cases.

Selection of physicians is made through mutual agreement of employer and workman; certain physicians who have proved incompetent are not recognized by the board. The bills of such physicians are not honored.

Medical aid division.—The medical aid division passes upon medical fees and looks after artificial appliances. A fee schedule has been adopted in conjunction with the provincial medical society. Fees are uniform throughout the Province and somewhat below regular fees. Claimant's or board's own physicians attend the patient in the hospital and are paid therefor.

STATISTICAL DIVISION.

The statistical division rates permanent disabilities and tabulates statistics. Accident files do not reach the statistical division until they have passed through the claims and finance departments.

OREGON.

The Oregon workmen's compensation law is elective as to compensation and compulsory as to insurance. Only enumerated hazardous industries are covered by the act. Electing employers must insure with the State fund, neither private casualty companies nor self-insurance being permitted. The act is administered by an industrial accident commission of three members appointed by the governor for a term of four years. The governor may at any time remove any commissioner appointed by him. The commission is authorized to appoint its own employees. The cost of compensation is borne by the employers, the workmen, and the State. The workmen are required to pay 1 cent for each working day, which is collected and remitted by the employer in addition to the employer's premiums. The State pays (out of the appropriation fund) one-seventh of the combined contributions of employers and workmen. This provision has been eliminated for the two-year period ending June 30, 1921. The expenses of administration, however, since 1917, have been paid out of the accident fund but are limited to 10 per cent of the premiums. The State's contribution approximately equals the annual administration expense. Prior to 1917 the administration expenses were appropriated by the State but limited to \$25,000 for salaries.

In addition to administering the compensation provisions and the State insurance fund the commission performs rehabilitation work and is also charged, in conjunction with the bureau of labor, with the enforcement of the safety laws.

The commission adjudicates its compensation claims upon written reports from the employer, physician, and workman, supplemented by examinations and investigations. No formal hearings are held by the commission. Appeal may be had from the commission's decision to the court, but a jury trial is permitted.

ACCIDENT REPORTING AND CLAIM PROCEDURE.

Accident reporting.—All employers are required to report all accidents, but only those of employers under the act are recorded and tabulated. There is no waiting period, all time loss accidents being compensable.

The following three reports are necessary before a claim is complete: Employer's report, workman's claim, and physician's report. The physician's report or the employer's report is usually received first. Upon receipt of the first report, two sets of index cards are

made. The employee's card contains the name and address of the employee, the claim number, the date and nature of injury, the firm name and number. These cards are filed in alphabetical order by name of employee (a book register was formerly kept but was discarded because too cumbersome). The employer's card contains the name and address of employer, the firm number, the claim number, the date, and the nature of the injury. When a report or claim is first received the employee's index is searched to see if the accident has been previously reported. If not, it is indexed and the claim number assigned. The reports are then turned over to the assembly department.

Assembly department.—The assembly department requests the missing reports of claims to which claim numbers have been assigned. A jacket is made and the incomplete claim is put in the monthly follow-up file, awaiting the receipt of the missing reports; if not received at the end of five days another request is made; then two more requests at 10-day intervals. Those still remaining incomplete are taken out and turned over to the correspondence clerk, by whom requests are again made. At the end of 60 days the incomplete cases are placed in the suspense file, where they are kept until outlawed. The assembly department also makes out a summary sheet. Only the workman's claim is acknowledged. The injured workman is also sent a return card, on which he reports whether the accident caused time loss, and if so, the date he returned to work. The assembly department also has on file the signatures of the employer's agents who are authorized to sign accident reports, thus preventing fraudulent reports being sent in by workmen. While the claim is in the assembly department information is obtained from the accounting department as to whether the claimant and the employer are covered by the act.

Computers and claim agent.—From the assembly department the claims go to the computers or claim examiners. The chief computer checks the facts as per inside cover of the claim jacket, on the basis of which the computers determine the amount of compensation, etc., which is entered upon the summary sheet. The claim then goes to the checker who reexamines the claims and checks the computations. The amount of compensation and the period covered are placed on the summary sheet. Continuing payments are made monthly, except that for serious cases (those in which the attending physician estimates the disability at two or three months) payment for one month is made immediately; if the report shows that disability will last three weeks, payment covering two weeks' compensation is made in advance. Ordinary claims are not examined by the commission's medical adviser. After leaving the computers the claims are divided. The "commission" claims (permanent partial disability awards, rejections, partial payments going through for the first time, fatal cases, reopened cases, and others involving over \$100 award) go to the claim agent for final examination, then to the classifier for classification, and then to the listing clerk. All other claims go directly to the listing clerk after classification.

Classifier.—From the computers and claim agent the completed claim goes to the classifier in the statistical department, who assigns the accident to the proper classification.

Listing clerk.—As the claims are received from the statistical department they are listed on a sheet by type of claim. These sheets go to the commission for approval and form the minutes of the commission's action. The commission claims go to the listing clerk once a day; other claims, every one and one-half hours, or five times a day.

Commission.—Only those claims enumerated above are examined personally by the commission each morning in the presence of the claim agent and the medical adviser. Permanent partial disabilities are rated at this time.

Transmittal sheets.—All claims involving payments are then transmitted to a special clerk, where a transmittal sheet is made in quadruplicate (one each to the cashier, the secretary of state, the commission for approval, and the bookkeeper). The commission signs the original sheet. Employers are notified of each award.

Cashier.—The cashier draws the checks which are signed by one commissioner. Checks are mailed the same day the transmittal sheet is made out. Checks for pensions (called warrants) are made out by the secretary of state but are mailed by the commission.

Partial payments.—Partial payment claims (continuing temporary disabilities) are kept in a separate file in numerical order. Two cards are made of each claim showing the name of the workman, the claim number, and the date of the accident. One of these is filed in alphabetical order, the other in the follow-up file. About 10 days before the next payment falls due (payments are made monthly) a progress report is sent to the attending physician, who reports as to the condition of the injured workman. If he will still be disabled for a considerable period the monthly payment is sent when due. (The claim again goes to the computer and takes its regular course.) If the claimant has resumed work or will be able to by the end of the next payment a certificate of condition is sent to the employer, who reports whether the workman has resumed work. The attending physician's statement as to length of disability is accepted. The case is not reviewed by the commission's medical adviser.

Medical service.—The commission has a part-time medical adviser who examines the claimants and advises the commission with respect to the medical questions arising under the act, including the determination of the degree of disability in permanent disability cases. The commission furnishes the medical service unless the employer operates under a hospital contract system. The commission has established two physiotherapy laboratories, one located at Salem and the other at Portland. Each of these laboratories is in charge of a skilled surgeon and has several nurses who administer physiotherapy treatment to the claimants.

According to the commission the contract hospitals are giving unsatisfactory treatment. It is stated that patients are discharged from the hospital before they are ready. Under the contract hospital system the commission remits to the employer the 1 cent a day collected from the workman. This amount is then deducted from the employees' monthly dues for the contract hospital services, which are also collected by the employer for the hospital. Under this contract hospital system, therefore, the employer's compensation costs are

reduced by the amount of medical cost. Consequently, he opposes the elimination of the contract hospital, because through the commission's merit-rating system he receives a credit on his premiums if his total accident cost is less than a certain per cent.

Permanent partial disabilities.—In case of permanent partial disabilities compensation is paid for temporary total disability during the healing period in addition to the statutory amounts in the schedule. The degree of disability in case of loss of use of a member is determined by the commission, being based upon the opinion of the medical adviser of the commission.

Fatal cases.—Fatal cases are reported on the employer's regular report form. These cases do not go to the assembly department but direct to the correspondence division. Relatives, the coroner, and the dependents are communicated with. In special cases an investigator is sent to obtain the facts, particularly as regards dependency.

Hearings.—The hearings of the commission are merely informal conferences, most of which are held in Portland. One commissioner and the medical adviser spend one day each week in Portland to examine claimants and to hear permanent partial disability cases. Claimants may appeal from the decision of the commission to the courts. There have been 25 appeals since the beginning of the act, 9 of which were decided against the commission. Upon appeal to the court the claimant is allowed a jury trial. According to the commission the jury frequently grants compensation when the facts do not warrant it.

ACTUARIAL AND ACCOUNTING DEPARTMENT.

Classifications and rates.—The original compensation act divided the industries into classes according to hazard, but provided for only two rates—3 per cent for the more hazardous and $1\frac{1}{2}$ per cent for the less hazardous; the workman to contribute one-half of 1 per cent and one-fourth of 1 per cent, respectively. In 1915 an amendment provided for a revision of classes and rates. This, however, was not found practicable. The commission, therefore, gradually revised and increased the classifications until at present about 300 are in effect. The rates enumerated in the law, however, could not be increased or decreased. The new classes were put in the statutory classes which best reflected the hazard of the class, as shown by experience in Oregon and other States. The commission, however, could make monthly exemptions of premium payments, which was done. The commission also was authorized to allow deductions of 10 per cent if the losses of a risk did not exceed 50 per cent of the annual premiums. These reductions applied on the next year's premiums. If the second year also showed a loss ratio not exceeding 50 per cent, a 20 per cent reduction was allowed. Exemptions applied to all classes except firms which had not had six successive monthly pay rolls immediately preceding.

Since 1919 the commission has been authorized to change the statutory rates. The practice of monthly exemptions has been eliminated, although the experience reductions are still in effect.

The workman contributes 1 cent a working day, which is collected and remitted by the employer. Some employers voluntarily pay the workman's share. The State pays (out of the appropriation funds)

one-seventh of the combined contributions of employers and workmen. This provision has been eliminated for the two-year period ending June 30, 1921. The expenses of administration, however, since 1917, have been paid out of the accident fund, but are limited to 10 per cent of the premiums. The State's contribution about equals the annual administration expense. Prior to 1917 administration expenses were appropriated by the State and limited to \$25,000 for salaries. The total contributions by employers and workmen for the year 1920 amounted to \$2,931,770.

Accounting department.—The Oregon act is elective. At present there are from 8,500 to 9,000 active accounts. About 10 per cent of these are nonhazardous employments which have come under the act through voluntary acceptance. Of these 10 per cent about 70 cent are farmers. Hazardous occupations in nonhazardous industries are not covered, nor are nonhazardous occupations in hazardous industries.

Pay rolls of employers accepting the act are submitted monthly on "remittance blanks." These blanks show the monthly pay roll and number of employees arranged by classes. Remittance sheets go first to the cashier, where they are acknowledged and totaled and deposited in bank. A check for the total amount is immediately drawn on the bank and deposited with the State treasurer. The remittance blanks then go to the bookkeeping department, where a list of daily receipts is made by firm number showing the amount contributed by the employer and the workman, penalties, etc. The total amount is then posted in the cash book. The remittance blank then goes to the statistical department for classification, after which it is returned to the bookkeeping department where the contributions and class numbers are entered on the firm premium record card. A separate record card is kept for each employer, showing whether the remittance has been made and what subsequent action has been taken. The remittance blank goes to the statistical department again for class experience. The daily receipt list is checked with the daily totals on the firm premium cards.

Losses paid as shown by warrant sheets are posted to the firm loss card. In case of death or permanent partial disability only awards are entered. Subsequent monthly payments are shown on premium cards. Warrant sheet totals are checked with firm loss card totals.

Funds.—The commission has five funds:

(1) Segregated fund or reserves for death, permanent total disability, and permanent partial disability awards (over 24 months): Out of this fund the pensions are paid on warrants drawn by the secretary of state from monthly lists furnished by the commission. These warrants are drawn in favor of the commission, which indorses them in favor of the claimant. Stamped acknowledgment cards are sent with the warrant; otherwise the commission has no further record of whether the warrant was received, since the cashed warrants are returned to the secretary of state. In case of remarriage of a widow, the remainder of the reserve is put back into the general accident fund.

(2) General accident fund: Out of this fund are drawn the moneys from which all other claims are paid. This fund includes the administration fund.

(3) *Emergency or revolving fund:* This fund was created in 1919. Previously the secretary of state issued warrants for each claim. In 1919 an emergency fund of \$40,000 was created by taking out of the general accident fund \$40,000 and placing it in a revolving or emergency fund, which is deposited in the bank. The commission now draws its own checks on this fund for nonpension payments. At the same time a check for the total is drawn against the State treasurer, who transfers the total amount called for from the general accident fund to the emergency fund. This practice relieves the secretary of state of making out warrants for each claim. No receipts are required by the commission from the claimants. Cashed checks are checked against the warrant sheets. A list is kept of those not cashed. Since the beginning of the act 497 uncashed warrants, aggregating \$3,579.65, have been written off the books. In addition 58 checks, aggregating \$1,048.63, will probably not be cashed but have not yet been canceled by the commission. These uncashed checks, however, are carried as a liability against the fund.

(4) *Catastrophe fund:* One per cent is taken monthly out of the general accident fund and placed in a catastrophe fund. Originally (1917) \$50,000 was set aside out of the accident fund for a catastrophe reserve. The total catastrophe reserve as of December 31, 1920, was \$95,192. In addition the fund has a general surplus of \$553,069.

(5) *Rehabilitation fund:* Two and one-half per cent is taken monthly out of the general accident fund and placed to the credit of the rehabilitation fund, from which reeducation work in permanent partial disability cases is paid. The commission believes, however, that 1 per cent of the premium income will be found adequate to care for the work of vocational reeducation.

Auditing pay rolls.—Pay rolls are audited whenever the auditors are able to do it. It is the aim of the commission to audit the pay rolls once a year. If the employer fails to pay his premium his pay roll is audited immediately.

Collection of premiums.—Premiums must be paid before the 15th of the next month after they become due. If not paid by the 30th a 1 per cent interest charge is made. After formal demand for payment is made by the commission a 10 per cent penalty applies, and if payment is not made within a reasonable time suit is brought. The commission is behind in its collections. There are between 8,500 and 9,000 accounts. About 1,200 letters are sent out monthly to delinquents. Each month 250 cases are turned over to the collection department for action. There are 50 prosecutions each month by the legal department. The uncollected premiums at the time of the examination were \$80,000, of which \$60,000 were over 90 days overdue.

Claim reserves.—Full reserves are set up by the commission in death and permanent disability cases, no deductions being made for remarriage or death of dependents. If the latter contingency occurs, the excess reserves are transferred from the segregated fund to the general accident fund. In temporary total disability cases the reserves are based upon the probable duration of disability.

Dividends.—The total dividends declared by the commission as of December 31, 1920, amounted to \$506,616.

STATISTICAL DEPARTMENT.

Only closed cases are tabulated. The periods shown are those in which the cases were closed. The cost tables show only premiums received and amounts disbursed for the periods stated. Premiums and losses do not apply to the same year.

The statistical department classifies both premiums and claims. One clerk classifies the premiums (monthly statements), and another classifies the claim losses. The premiums are obtained from monthly remittances and adjusted when audited pay rolls are reported. The losses are reported from transmittal sheets.

Accident statistics are recorded by hand on cards (one card each for temporary total, permanent partial, and fatal cases). From these cards the classifications are made. The commission is considering putting into operation the Hollerith tabulating machine.

REHABILITATION DEPARTMENT.

Since 1920 the commission has maintained a rehabilitation department for the purpose of educating and retraining those permanently disabled. At present rehabilitation is limited to those injured under the compensation act and to those under 40 years of age, who have sustained a loss of 50 per cent of function of a hand, arm, foot, or leg. The commission pays the tuition of those taking training and a monthly stipend is also paid, the amount of which is rated according to the number of dependents.

SELF-INSURANCE.

Self-insurance is not permitted under the Oregon compensation law.

SAFETY WORK.

Prior to 1920 the commission performed no safety work, this being a function of other State departments. In 1920, however, a law was enacted authorizing the industrial accident commission to undertake the work of accident prevention in conjunction with the bureau of labor.

WASHINGTON.³⁷

The Washington workmen's compensation act is compulsory both as to compensation and insurance. Only enumerated hazardous industries are covered by the act. All employers must insure in the State fund, neither private casualty companies nor self insurance being permitted. The act is administered by an industrial insurance department consisting of three commissioners, who are appointed by the governor for a term of six years. The commission may appoint its own employees. The administrative expenses of the commission are paid out of the State treasury from moneys regularly appropriated.

The commission is charged only with the administration of the compensation act including the State fund. Accident-prevention work is under the jurisdiction of the safety board and other State departments. The administration of the medical service under the compensation act is under the jurisdiction of a medical aid board.

³⁷ The Washington Industrial Commission was combined with several other labor-law enforcing agencies in 1921.

The commission adjudicates its compensation claims upon written reports from the employer, the physician, and the workman, supplemented by examinations and investigations. No formal hearings are held by the commission. Appeal may be had from the commission's decisions to the higher courts.

ACCIDENT REPORTING AND CLAIM PROCEDURE.

Accident reporting.—Only employers under the act are required to report accidents, but all their accidents irrespective of time loss or medical aid must be reported. The statutory waiting period is seven days.

Both employer and workman are required to make report of an accident to the commission at once, either on separate blanks or on a combined blank—one side for the employer and the other side for the workman. The workman's report serves as a claim. About four-fifths of all accidents are reported on combined blanks. The employee's claim is not made under oath. Each accident is given a number and filed in alphabetical order.

Assembly department.—All reports are first received by the file clerk, who stamps the date and transmits the accident reports to index clerks, two in number, one indexing from A to L, the other from M to Z. The attending physician's reports are first transmitted by the file clerk to the medical adviser, who initials them and forwards them to the indexing clerks. The reports are then indexed in alphabetical order by employee's name. The index register contains the name and address of the workman, the date of accident, the date when received, and what reports have been received, i. e., whether the employer's, the workman's, and the physician's reports are on file. The report is then given the next consecutive number. The workman's report is acknowledged by postal card upon which is shown the accident number. The employer's report is also acknowledged by card, with the claim number thereon. One purpose of the employer's acknowledgment card is to allow the employer to protest the claim and to prevent fraudulent claims on the part of the workman. This card is duplex in form. Upon the return half the employer corroborates the workman's claim and also states whether the workman has returned to work. If no reply is received a second card is sent to the employer, and if no reply to this is received it is assumed the claim is legitimate.

Missing reports (from employer, workman, or doctor) are requested by means of form letters. Missing doctor's reports, however, are requested from the local aid board having jurisdiction.

A summary and findings of fact is next made out by another clerk. This summary goes to the auditing department. First, the firm or risk number is placed on the summary. The names of all firms under the act are kept in a firm register in alphabetical order, showing firm number and class number. Then the summary sheet goes to another division and the class number and the medical-aid class are noted thereon, also whether the employer has a hospital contract. Here all firms are listed on cards, which are filed in numerical order. These cards show the manual class and the premiums paid. The summary then goes to the assembly division for the other reports, and then to the classifier who assigns the accident to the appropriate pay roll and determines the subclass.

The reports are then returned to the assembling department. A jacket is made for each claim (the jacket cover specifying what reports have been requested). If the jacket is incomplete it is placed in the monthly file at the day upon which a follow-up letter will be written. If the missing reports are not received within five days a first follow-up letter is sent, followed by a second after a 10-day interval. No reports are kept in this follow-up file more than 30 days. At the end of 30 days they go to a special follow-up division through which all matters requiring further attention are handled. In this special division the incomplete jackets are again placed in a monthly file.

Claims division.—When the jackets are complete they go to the claims adjuster. There are three such adjusters. These adjusters examine the cases as regards coverage, liability, computation of reserves, etc. Permanent partial disability cases are sent to the medical division for rating; if the case requires additional information it is sent to a field adjuster for investigation. The case then goes to the claim agent, who finally reviews and passes upon every case.

The claim agent divides the cases into the following classes: (1) Finals; (2) adjustments—those with vouchers attached signed by claimants; (3) permanent partial disability finals; (4) fatals; (5) reopen cases; (6) partial payments; (7) rejections; (8) suspensions; (9) to close as paid; and (10) monthly payments.

Listing clerk.—The cases then go to the listing clerk by whom the claims are listed on a sheet in the groups mentioned above. These lists contain the name of the workman, the amount to be paid, and the reason in case of the rejection of the claim. Four such lists are made (one each for the listing clerk, auditor, claim agent, and the statistician). Before the claimant is sent his check he must sign a voucher, which must be returned to the commission. In case of monthly payments this is not required, merely a card showing the amount of the award being sent to the employer. The listing clerk makes out vouchers for each claim in duplicate—one to the claimant and one to the employer. Notice of whatever action is taken by the commission, i. e., whether the claim is rejected or suspended, and the reasons therefor, is sent to the employee by form letter and to the employer by printed card.

The listing clerk does not make vouchers in fatal cases; these are made by the claim agent.

The claims then go to the commission for formal approval, then to the secretary's office where the vouchers and lists are compared and the vouchers are sent out. Claims then go to the audit department to have the losses recorded on firm record cards, which are kept in numerical order by firm number, then to the statistical department, after which they are returned to the voucher and warrant clerk. The monthly payment claims, however, go from the commission direct to the claim agent, who has supervision over continuing claims, that is, temporary total disabilities of long duration. Once a month a certificate of condition is sent to claimant which must be signed by the employer or the physician.

Voucher and warrant clerk.—From the statistical department the claims go to the voucher and warrant clerk. Here the claims are filed awaiting the return of vouchers from the claimants. When the

vouchers arrive the claims are withdrawn and warrant sheets are made out in quadruplicate. The signatures on vouchers and original accident reports are compared. The warrant sheet then goes to the State auditor and warrants or checks are made out; the claims are placed in another file awaiting the return of the warrants. When warrants are received they are checked with the claim as to the claimant's name, the amount, and the warrant number; the warrants are also checked with the warrant sheet as to name, amount, and number; and the envelope is checked with the claim as to the name and address of claimant. The original voucher is sent to the treasurer for comparison with the signature on the warrant. A duplicate voucher goes to the claimant.

Hearings.—The commission adjudicates its compensation claims upon written reports from the employer, physician, and workman, supplemented by examinations and investigations. No formal hearings are held by the commission. Appeal to the courts may be had from the commission's decision.

Medical department and permanent partial disabilities.—The commission has a medical department consisting of a chief medical adviser and assistants. All attending physicians' reports go to the medical adviser and are examined as to (1) name and character of physician attending the case; (2) nature of injury and whether it is presumably due to accident and whether it arose out of employment; (3) how soon after the accident the injured workman went to a physician. The physicians' reports are then returned to the claims division.

The medical department rates all permanent partial disability injuries. In case additional information is desired the case is referred to the district adjuster (at Spokane, Seattle, or Tacoma) for special report. A record of each permanent partial disability case is filed in the medical adviser's office.

Each permanent partial disability (impairment) is rated on functional loss only. The flexion and extension of a member are measured and the loss of motion determined in percentage of total loss of that member. Total loss of each member is stated in degrees, \$25 being paid for each degree of total disability, 80 to 100 per cent being the maximum. In eye injuries the Snelling test is used, the fractions being translated into percentages of loss of vision. In case of injury to one eye only, the per cent of loss of vision is computed upon central vision only, lateral vision being disregarded. But in case of injury to both eyes loss of lateral vision also is measured and taken into account.

The medical department of the commission has to do only with determining the degree of permanent disability and with the ability of the injured workman to return to work—the actual treatment being under supervision of a separate medical aid board. The medical adviser may refer cases to specialists, of whom he keeps a list, or he may have the injured workman called in for X-ray examination. All fees and expenses are paid by the commission. The results of these examinations and the recommendations of the medical adviser in these cases are transmitted to the medical aid board for its information. If deemed advisable the medical aid board may change physicians.

The medical department has X-ray machines and numerous testing and measuring instruments. Many workmen on their own initiative come into the office for examination. Temporary disability accidents of long standing are particularly scrutinized. These are investigated by an adjuster and if deemed advisable are examined by specialists.

Osteopaths, etc., are not recognized, and bills for treatment by them are not paid unless such treatment has been recommended by a regular surgeon. The injured workman selects the physician in nonhospital-contract cases, but if treatment furnished is inadequate or inefficient the commission may and does transfer the case to another physician. The hospital-contract system is undesirable according to the commission. It is stated that such hospitals furnish poor service, some of the hospitals being mere money-making schemes. Patients are said to be discharged before they are healed.

ACTUARIAL AND ACCOUNTING DEPARTMENT.

Classification and rates.—The basic rates and classifications are stipulated in the compensation act. These rates, however, may be increased or decreased by the commission in accordance with the experience developed. The commission may also change the classifications if experience warrants. Each class is divided into subclasses with varying rates (not more than basic rate) in accordance with hazard. A merit-rating system is used by means of which individual employers within each class receive a credit or debit in accordance with their experience and the physical condition of their plants. The merit rating is applied and the inspections are made by the safety board, a separate State department.

Assessments.—An employer in making his application submits an estimate of pay roll for the first three months' operation, showing pay roll, nature of work, and number of employees. A book of instructions is then sent to him including blank forms for reporting future pay rolls. A notice of assessment based on an estimated three months' pay roll is also mailed to him. An employer's premium record card is made out at the time, and the assessment recorded. A duplicate assessment is sent to the cashier where it is filed in numerical order. When the remittance is received with the original assessment, the duplicate is taken out of the file and the original returned to the employer. The duplicate then goes to the bookkeeper who combines the duplicates by classes and records totals to the credit of the class. The cards are kept in numerical order. The duplicate assessment slips then are marked as paid on the firm premium record card. The assessment checks are deposited in a bank, upon which a check to the full amount is drawn and deposited with the State treasurer.

Thereafter employers report their pay rolls three times a year upon blanks furnished by the commission. Assessments are made whenever needed. In most classes no further assessment is made until the end of the year, when the adjustment is made. In the others assessments may be called for at any time or at the end of the job in case of construction or small logging jobs. The action taken depends upon the condition of the fund of the class. Employers beginning in the middle of the year are charged the full basic rate unless they continue for the next year, in which case they receive the

adjusted rate. The total contributions for the year 1920 amounted to \$2,590,758.

Medical aid contributions are submitted with the pay roll. Compensation insurance premiums, however, are not transmitted with the pay roll, for the reason (1) that they may not be needed immediately, and (2) because the employer usually makes mistakes in computing the premiums. Medical aid contributions are computed on a per capita basis.

Premium adjustment.—At the end of the year the number of assessments to be made is determined and the adjustments are made. The pay rolls for each employer are summarized (on summary sheet), the classifications made or verified, and premiums computed. The net assessment for the year (the initial assessment being deducted) is sent to the employer and recorded upon the firm card and the class ledger card as in the case of the initial assessments. Debit and credit adjustments of different classes are made by means of a journal voucher on the class ledger. (The initial premium estimates may not correspond with the pay-roll premiums later reported, necessitating the giving of appropriate credits and debits.)

Each class bears its own losses. Consequently there are as many accident funds as classes. The number of assessments, as already noted, varies with the class. Frequently classes have no funds available for the current losses. Each class lives from hand to mouth, although the commission aims to have always a certain reserve on hand. In case one class is temporarily insolvent the other class funds are drawn upon. No catastrophe or other reserves (except claim pension reserves) are maintained.

Auditing pay roll.—Previous to June 7, 1917, employers did not report pay roll except initial estimates. The pay rolls were later obtained by the commission's traveling auditors. By an amendment to the law in 1917 employers were required to report pay rolls direct to the commission. The commission required reports monthly until April, 1918; since then, three times a year, but separately for each month by classes. These pay rolls and the classifications are accepted by the commission as correct without verification. However, pay rolls of large contractors reported in lump or with improper classifications are audited at the end of the year or the end of the job. Also, pay rolls of public contractors are audited because the State or subdivision will not pay contractors until they have received a release from the commission showing all premiums paid. Occasionally some other employers request a pay-roll audit by the commission, which is done.

Medical aid contributions.—The commission collects the medical aid contributions for the medical aid board. These contributions are deposited with the State treasurer to the credit of the medical aid board, which disburses the medical aid fund.

Firm record—premiums.—There is a premium record card for each employer, which shows the amount assessed against each employer by classes and the amount actually paid. The assessment is recorded on the card from the adjustment sheet before the assessment sheets are sent out. When assessments are paid the amounts are recorded on premium cards as actually paid. The firm cards are not

balanced with the class record cards. Medical contributions are also recorded.

Firm record—losses.—Each employer also has a claims-paid record card which shows the losses paid. After claims are approved by the commission they are recorded on a firm-record card, except the monthly payments which are recorded from the warrant sheets. The amount of reserves is not recorded. Medical payments are also recorded from the warrant sheet received from the medical aid board.

Class record.—Only premiums actually paid are recorded. When checks accompanying assessment slips are received, the latter are transmitted by the cashier to the bookkeeper, who groups them into classes and lists them on one sheet, from which they are transferred to ledger cards by classes (they are not kept by subclasses). There are several ledger cards for each class (premiums, refunds, claims paid, expenses of claimants, reserve fund). The claims, etc., are posted to the ledger card from the warrant sheets. The death reserves are kept by class on a separate card which contains the reserve and the payments made against the amount of the reserve. Credits and debits are made by the journal voucher. Each month a recapitulation by classes is made on one sheet.

Reserves.—Pension reserves for the Washington fund are computed by the State insurance department. These reserves are revalued annually, and if they are found to exceed the necessary requirements the excess is turned back into the accident fund. On the other hand, if the reserves are found insufficient the needed amount is taken from the accident fund. No catastrophe reserve is maintained by the commission.

Dividends.—No dividends are declared by the commission. It is the policy of the commission to collect only sufficient premiums to meet the cost of accidents as they occur.

STATISTICAL DEPARTMENT.

A new system of accident statistics has just been introduced. Only closed cases are tabulated. The accident cost to employers is to be kept by calendar year. Claims are received from the claims division as soon as closed and punched on Hollerith cards. Every firm is given a number. The firm number is punched so that it will be possible to assemble all accidents occurring in one firm. This gives the accident cost per firm. The firm cost is given only when a special request is made by the firm concerned. The State safety board duplicates this information.

Claims are divided into two classes—compensable and noncompensable. The chief information asked as to noncompensable claims is (1) reasons for rejection and (2) time loss for accident of less than seven days. No medical costs are tabulated. This is a function of the medical aid board. Classification of causes of accident is to be subordinated, since this is a function of the safety board. Heretofore emphasis on accident tabulation has been from the medical standpoint, that is, for the use of the medical department. Hereafter the insurance costs are to be made the major subject of the statistical department. The amount of the pay roll and the losses paid are to be kept by subclasses. From these data the commission will determine the number of assessments or calls for the year.

SELF-INSURANCE.

Self-insurance is not permitted under the Washington act. All employers must contribute to the State fund.

SAFETY BOARD.

The industrial commission is not charged with accident-prevention work. This is under the jurisdiction of the State safety board, a separate department of the State. The safety board not only is charged with the accident-prevention work but also administers the merit-rating scheme. Under this merit-rating system employers receive a credit or debit based both upon the physical condition of their plants and upon their experience.

MEDICAL AID BOARD.

The medical aid board has supervision of the medical service under the compensation act, including the administration of the medical-aid fund, which is kept separate from the accident fund. Employers, excepting those operating under a contract hospital system, must contribute to the medical fund in accordance with the hazard of the class to which they belong.

WEST VIRGINIA.

The West Virginia workmen's compensation law is elective as to compensation and compulsory as to insurance. All regular employments, except farm labor, domestic service, and traveling salesmen are covered by the act. Electing employers must either insure in the State fund or provide self-insurance. Private casualty companies are not permitted to operate. The act is administered by a compensation commissioner appointed by the governor with the consent of the senate for a term of six years. The commissioner is authorized to select his own employees and to fix their salaries. With the exception of the commissioner's salary, which is paid out of the State treasury from moneys regularly appropriated, the administrative expenses of the fund are paid out of the premiums, subject, however, to a maximum annual expenditure of \$140,000.

The compensation commissioner is charged only with the administration of the compensation act, including the State fund. The commissioner is not charged with the enforcement of the safety laws, except that he may require employers to adopt and post safety rules. The accident prevention work is under the jurisdiction of other State departments.

The commission adjudicates its compensation claims upon written reports of the employer, physician, and workman, supplemented by examinations and investigations. No formal hearings are held by the commissioner. Appeal to the courts may be had from the commissioner's decision.

ACCIDENT REPORTING AND CLAIMS.

Accident reporting.—Only employers subject to the act report accidents, but all their accidents are reported. The statutory waiting period is seven days. The following primary reports are re-

ceived: (1) Employer's report; (2) workman's claim, which must be sworn to; (3) doctor's report; in addition, periodical reports of the attending physician on the condition of the claimant, and physician's fee bill.

When the employer's report is received (usually it is received first) it is given a number. West Virginia has a unique system of numbering accidents. One number is given to all accidents occurring on a given date, this number being the number of days elapsing since the act went into effect. Then each accident is given another number, being numbered consecutively in the order in which it is received; e. g., No. 2206-83 means that the accident occurred on the 2206th day and was the 83d accident reported for that day.

After numbering a claim, a jacket is made, a different colored jacket being used for the self-insurer. The risk or firm number is placed on the jacket and on the accident report. The clerk who assigns these numbers has on file a list of employers with the risk numbers. The same clerk also makes out an employee's index card, containing the names of the employee and employer, the date of the accident, the nature and cause of the injury, the claim number, the risk number, and the date of filing. These are filed in alphabetical order, by employee's name, by three-month periods.

Another clerk indexes the accidents in an accident register book in numerical order. This book contains the risk number, the employee's and employer's names, the duration of disability, and also the following, which are entered later: Receipt of subsequent reports, which are checked when received, and the dates when the case goes to the medical department, the claim clerk, and the commissioner for approval.

The missing reports (the workmen's claim, and the physician's report and physician's bill which must be signed by both employer and employee) are then requested from the employer, blank forms being sent to the employer, who is requested to get in touch with the parties. Upon the blank forms are placed the claim number and the date when sent; the latter is also put on the jacket.

The case then goes to the accounting department to ascertain if the employer has paid his premiums; at the same time the class number is assigned. If the employer is in default on his premium payments he is automatically not under the act and the State fund is not liable for claim payment.

The case is then returned to the claim department and indexed in the employer's register by class number. The employers are divided into general classes (A, mining, G, public utilities, etc.), and the employers under each class are numbered in numerical order. The accidents are then listed under the name of the employer in the order in which they are received. The register contains the accident number, the date of the accident, the location of the plant, the employee's name, and whether the injury was fatal or nonfatal. The case is then filed in numerical order awaiting developments.

The clerk who has charge of the accident register records the reports as they are received. A list is made of completed cases, which are then withdrawn from the files and sent to the medical department for examination as to the duration of disability, the degree of partial disability, and the doctor's bill. The medical adviser makes a report on a special form. The case then goes to the claim clerk for exami-

nation, at which time a synopsis sheet is made out; then again to the accounting department for rechecking; then to the checker for final examination and checking of computations, etc.; and then to the commissioner for approval, after which it is countersigned by the secretary. A list of all claims is made and sent to the "register" clerk for entry. Checks are then made out and sent to the State auditor for signature.

Payments are made every two weeks and sent directly to the employer for distribution to the injured workmen. Compensation is paid irrespective of whether the employer pays full wages during the disability. The matter is left to the employer and employee—the former receives the check in the first instance. In fatal and permanent partial disability cases the employer is notified of the amount of the award and the check is sent directly to the employee.

Compensation payments in death cases are made twice a month. With each voucher check the beneficiary is required to state whether there has been a change in the nature of dependency, and twice a year the beneficiary is required to submit a sworn statement regarding the status of such dependency. When a check is sent to a claimant a physician's supplemental report form is inclosed, which must be returned before another payment is made.

The register clerk examines the accident register three months after the date of the accident and if missing forms have not been received a second set is sent to the employer; if there is still no reply, a third set is sent to the workman. After six months a claim is outlawed. Requests for reports are sent only in those cases in which the duration of disability was reported by the employer as over seven days. If the claimant is still disabled when the physician's report is made, the supplemental report is detached and sent in later when the injured man returns to work. Final reports are received from the physician, but not from the employer.

Self-insurers' accidents are handled exactly like those of the State fund, except that after the commissioner passes upon a claim and makes an award an order is drawn upon the employer to pay the amount and a receipt for the same is filed with the commissioner. The same reports are required (the workman's claim, and the doctor's and employer's reports) and the same procedure is followed.

Hearings.—The commission adjudicates its compensation claims upon reports from the employer, physicians, and workman, supplemented by examinations and investigations. No formal hearings are held by the commissioner. Appeal to the courts may be had from the commissioner's decision. There have been only about four or five appeals to the courts annually.

Medical department.—The commission has a medical department consisting of a medical adviser and one clerk. The medical adviser does not have his office in the commission and gives only part time to this work. The ordinary minor and routine cases are examined by the clerk, only the more important cases, including permanent disabilities, being examined by the medical adviser. The commission also refers cases to medical referees. A special surgical report is required in certain cases. As to medical fees, the commission is guided by a fee schedule which is uniform throughout the State. The selection of the physician is usually left with the employee, although some employers have assumed the privilege of choosing the physician.

ACTUARIAL AND ACCOUNTING DEPARTMENT.

Classification and rates.—The West Virginia compensation law provides for a classification of industries according to the hazard, but the commissioner has power to change the classifications enumerated in the act. The original statutory classifications have been considerably increased and modified.

The early law limited the maximum rate to \$1. This proved insufficient to meet the losses from several of the hazardous industries, especially coal mining. In addition there occurred two heavy catastrophes, one in 1914 and one in 1915. As a result of the low rate plus the two catastrophes, the coal mining schedule has been insolvent from practically the beginning of the act. The coal mine rates were increased to \$2.10 the third year; the coal mining deficit has been gradually reduced, and at the present time the coal mine class is almost solvent.

The original rates adopted in West Virginia were based upon the insurance manual. As experience developed these rates were modified. There has been no change in the basic rates since 1917.

Public employers must report their pay roll and premiums in the same manner as is required of private employers. They have the same classifications, depending upon the nature of the business, and are charged the rates applicable to the classifications.

Merit rating.—West Virginia has adopted an experience rating plan. Under this plan a debit or credit is given to each employer depending upon his experience during the preceding year. Such credits are not retroactive but apply upon the subsequent year. In determining each employer's loss experience, all fatalities, irrespective of whether there are dependents, are valued at \$1,200, and all permanent totals are valued at \$1,400. These debits and credits apply only for one year. This plan has resulted in a general reduction in rates of about 10 per cent. Adjustments are not made at the end of the year upon the previous year's experience, but a new rate modified in the light of the employer's loss experience is applied to the following year's pay roll.

Credit for hospital service.—No special reduction in rate is given if the employer maintains his own hospital service. However, by so doing he reduces his loss cost and in this way is credited in the application of the merit-rating system.

Pay roll and premium receipts.—Each employer is required to keep on deposit with the fund premiums for two previous pay-roll periods. He must report pay roll monthly and remit premiums thereon under oath. The employer makes the classification and applies the rate which is furnished him. The fund computes the revised or merit rate from the employer's prior year's experience. This rate is furnished the employer, and he applies it to his next year's pay roll. The rate does not apply retroactively. Each employer is supplied with his own experience by the monthly statements. Employers may know therefore whether their rate is correct.

Employers must report before the 25th of the succeeding month. If not, they are dropped at the end of the next month, i. e., three months from the beginning of the first month for which no report is received. Defaulting employers may be reinstated, however, with no penalty. There are about 200 defaults a month. No legal action

has been taken to collect premiums if employers fail to remit. The fund has two months' advance deposit, however, so it loses only one month's premiums. The fund is liable for accidents occurring three months after default or until the employer is suspended.

Each month a statement of each subscriber's experience is made, one copy of which is sent to the employer and one copy retained by the auditing department and bound in book form. This statement contains the claim number, the date of the accident, the name of the employee, the losses (medical, funeral, temporary disability, permanent total disability, and fatal); also the risk and class number. If an employer has more than one class a separate statement is made for each class. Losses include amounts awarded in fatal and permanent disability cases, but in temporary disability cases only the amount paid during the month regardless of the date of accident. Fatalities are figured at \$1,200 and permanent total disabilities at \$1,400, but for merit-rating purposes only.

In the employer's account book is kept a record of each firm's annual premium and losses. On one side of the page are posted the premiums from the monthly pay-roll report, the class number, the rate, the wages, the premiums, and the deposits being shown. The accounts are examined once a month and the delinquent employers notified. Employers must report their pay roll and send their remittance before the 25th of the succeeding month.

On the reverse side of the page are posted the firm's losses taken from the monthly statement, showing the class, the date, and the medical, funeral, temporary disability, permanent total disability, and fatal losses for the month. The fatalities are estimated at \$1,200 and the permanent total disabilities at \$1,400. The fund also keeps the annual experience of each employer, arranged by classes. In computing the loss experience by classes the merit-rating estimate for fatalities (\$1,200) is converted into the class estimate of \$1,875 and the permanent total disability estimate (\$1,400) is converted into a reserve based upon a life expectancy of 16 years. The total premium income for the year 1920 amounted to \$2,410,238.

Reserves.—Reserves for outstanding losses are computed as follows:

In case of death or permanent total disability the present reserve set aside is \$1,875. The original reserve under the act was \$1,200 for each fatality. This was increased to \$1,500 in 1918, and later to \$1,875. This \$1,875 is derived in the following way: Widows and permanent total disability cases are presumed to live 16 years, the compensation rate being applied for this length of time. The total compensation thus obtained is divided by the combined number of permanent total disabilities and deaths regardless of whether dependency exists, and the quotient thus obtained is the \$1,875 already mentioned. Each classification having a death or permanent total disability is charged with this amount irrespective of wages, compensation rate, or number of dependents.

The reserve for permanent partial disability is the full amount of the compensation award, discounted, however, at 4 per cent for present worth. There is no reduction for mortality. In case of lump-sum settlements, however, there is a 5 per cent discount for present worth and an additional 5 per cent for mortality.

The reserve for temporary disability is not based upon the case method but determined from prior experience; that is, the commission has determined from the earlier year's experience the actual losses which were outstanding at the close of each year. This has been about 10 or 11 per cent of the total losses.

Catastrophe reserve and surplus.—Originally 10 per cent of the premiums was set aside for catastrophe hazards. This was reduced to 5 per cent and then to the present 4 per cent. The catastrophe reserve is merely a part of the surplus and it is not used to pay for special catastrophe losses. Each classification must pay for its own losses. The catastrophe reserve plus the surplus is merely a stabilizer of insurance rates. The total surplus of the fund as of June 30, 1919 amounted to \$539,626, of which the catastrophe reserve constituted \$330,894.

Dividends.—No dividends have been paid. It is the policy of the fund to charge low rates rather than to pay dividends.

SELF-INSURANCE.

Self-insurers are required to file a financial statement showing their assets, liabilities, etc. In addition, each self-insurer is required to deposit security. The minimum security required is \$5,000. If more than one employee will be affected by a single accident a \$5,000 deposit is required for each employee. Thus far there have been no failures. Self-insurers are also required to pay their share of the administrative expenses of the commission, this being 5 per cent of their premium. They are required to report their pay roll and premium in the same way and manner as employers insured in the State fund. Self-insurers do not contribute to the catastrophe fund nor do they receive the benefit of the catastrophe reserve or fund.

SAFETY WORK.

The compensation commissioner is not authorized to administer the safety laws of the State except that he may require employers to adopt and post safety rules. The accident prevention work is under the jurisdiction of other State departments.

COMPETITIVE STATE FUNDS.

CALIFORNIA STATE FUND.

The California State insurance fund is under the jurisdiction of the industrial accident commission and is administered by a manager appointed by the commission. The commission determines the general policy of the fund but leaves to the manager the carrying out of its policies. The fund is, therefore, practically independent of the commission. The manager of the fund is authorized by the commission to appoint the employees of the fund, subject, however, to the civil service laws of the State. The administrative expenses of the fund are paid out of the premiums. This expense includes a 2 per cent tax on the earned premiums. The fund has voluntarily assessed itself this 2 per cent tax, which is required of the private casualty companies, in order to equalize competitive conditions. The amount of this tax is turned over to the administrative fund of the commission.

When the State fund was created, the State legislature appropriated \$100,000 as a working capital for the fund and the commission, having an additional sum available for preliminary expenses prior to the date the fund began as a legal entity, contributed \$5,000 as a preliminary expense fund. The \$100,000 appropriated by the legislature, however, has never been touched and is still carried as a liability against the fund.

The premium income of the funds increased from \$547,161 in 1914 to \$4,360,397 in 1920. During the first seven years of the act—that is, up to December 31, 1920—the fund returned to its policyholders \$2,060,291 in dividends. In addition to these dividends the fund had on December 31, 1920, a surplus, over and above all incurred and outstanding obligations, amounting to \$1,997,660 including the \$100,000 originally appropriated.

The fund adjudicates its compensation claims primarily upon written reports of the employer, the physician, and the workman, supplemented by examinations and investigations. In disputed cases either party may appeal to the industrial accident commission for a hearing. The number of appeals to the commission in the case of the State fund is relatively much smaller than in the case of private insurance carriers. Although the fund has the right to appeal from the decision of the commission to the courts, it is the policy of the manager of the fund not to appeal from the commission's decisions.

ACCIDENT REPORTING AND CLAIMS DEPARTMENT.

Accident reports are required from the employer, the physician, and the workman. All the mail is received in the general office and from there it is distributed to the claims department and other divisions. The medical division receives all the physicians' reports; the medical adviser examines these reports and notes those he wishes to reexamine, which are returned to the medical division in due time.

Certain large employers having their own medical service do not report minor injuries (those receiving no compensation and no medical aid) on blank forms. In lieu thereof they send in periodical lists from which statistical cards are punched.

Coverage division.—All accident reports are indexed on cards by name of employer. A number is assigned to each accident. Accidents are also indexed on cards by name of employee, and by claim number in a book which contains the names of the employer and workman and the policy number. Before listing the accident report is examined as to coverage. A summary card and jacket are then made out. A synopsis of the case (similar to the employee's index card) is sent to the branch office. The branch office gets in touch with the employer and requests the missing reports.

Claims division.—The jacket with the accident report and the summary card is transmitted to the claims division. This division is composed of four groups, each having entire supervision over the accidents assigned to it. Of every 100 accidents, group 1 receives those numbered from 1 to 25; group 2, from 26 to 50; group 3, from 51 to 75; and group 4, from 76 to 100. Each group consists of nine employees, as follows: Claim examiner, assistant claim examiner, clerk, assistant clerk, messenger, post-office girl, stenographer, typist,

and check writer. The post-office girl distributes the mail to the appropriate employees in the group.

The examiner receives the accident reports from the coverage division. Missing reports (generally the workman's claim and the employer's report) are requested, the claim number being assigned to the blanks sent out. The estimated cost of the accident is noted on the summary card, which is sent to the statistical department for tabulation and then returned to the examiner and filed in the monthly file as of the day missing reports are due or the day compensation is to be made. Carbon copies of requests are sent to the branch offices.

Payments are made weekly in ordinary cases, biweekly in serious cases, and monthly in death and permanent disability cases. One-half of the amount is paid in advance. In serious cases payments are made before the workman's claim is received. Employers' and doctors' reports, however, must have been received. Medical bills are paid biweekly. Doctors' supplemental reports are requested through the workman. These blanks are usually submitted with the compensation check.

Claims are examined and the amount of compensation computed by the clerk and checked by the assistant examiner. The claim then goes to the check writer, who writes the check; the check and case are examined by the examiner and approved by the superintendent or assistant superintendent of claims. Checks are signed by the manager, the secretary, or the assistant secretary, and countersigned by the fund auditor. Checks are sent to the workman direct in 9 out of 10 cases. Some employers want the checks sent to them. If the employer pays full wages while the employee is totally incapacitated, the check is drawn in favor of both the employer and workman.

Closed cases are extracted and filed in numerical order in the closed file. Closed summary cards are sent to the statistical department for tabulation.

Four copies of the checks are made (one each for the workman, the branch office, the jacket, and the audit department). The checks are totaled daily.

Hearings.—The fund adjudicates its compensation claims primarily upon written reports of the employer, the physician, and the workman, supplemented by examinations and investigations. In disputed cases either party may appeal to the industrial accident commission for a hearing. The number of appeals to the commission in the case of the State fund is relatively much smaller than in the case of private insurance carriers. Although the fund has the right to appeal from the decision of the commission to the courts, it is the policy of the manager of the fund not to appeal from the commission's decision.

ACTUARIAL AND ACCOUNTING DEPARTMENT.

Classifications and rates.—The State fund adopted the classifications and rates promulgated by the National Workmen's Compensation Service Bureau for the private casualty companies. The fund has ever since charged the same rates that other insurance carriers have charged, these being the minimum rates fixed by the State in-

insurance commissioner, except that when the other carriers at the beginning of 1918 increased their rates 5 per cent the fund did not meet this increase. The private companies, however, abolished this 5 per cent increase in October, 1919. The rates charged by the fund are sufficiently high to allow the building up of an adequate surplus and a return to the policyholder of an annual dividend of approximately 30 per cent.

Pay roll and premiums.—Risks are divided into three classes as regards method of premium payments as follows: (1) Ordinary small risks, the annual premium being based upon the estimated pay roll and paid in advance. (2) Contracting risks, in which three months' advance premium on the estimated pay roll is required, the initial premium acting as a deposit; the actual pay roll is then reported and the premium thereon paid at the end of three months. (3) Risks of large employers who report pay roll and pay premium monthly. Pay rolls are audited yearly except that pay rolls of small employers in outlying districts are not audited. The minimum premium ranges from \$5 to \$20, depending upon the hazard of the risk; ordinarily the minimum premium is \$10. Premiums must be paid within 10 days; if not so paid, the risk is automatically canceled.

The premium income of the fund has increased from \$547,161 in 1914 to \$4,360,397 in 1920, which was approximately 40 per cent of the entire workmen's compensation insurance business of the State.

Reserves, surplus, and dividends.—The loss reserves in workmen's compensation insurance in California are not computed upon the basis of incurred losses but under the State insurance law are based upon the earned premiums. The legislature of 1915 enacted a reserve law requiring insurance companies to retain, undistributed to their stockholders, a certain percentage of their premiums intact for three years before releasing them to their surplus account.

The reserve law then in effect provided for setting aside for losses a reserve of 75 per cent of 1914 earned premiums, less losses and loss expenses paid, and as the estimated actual losses (using liberal estimates for outstanding losses) were only approximately 39 per cent, a considerable portion of the profit was tied up in reserves for the average three and one-half year period by law. While this gave the fund an excellent bulwark to windward, it also limited the amount which could be immediately returned to policyholders. The only amount available was the difference between 100 per cent of the premiums earned plus interest and the reserve of 75 per cent plus expenses other than claims. At the end of the year a flat dividend of 15 per cent of earned premiums to all policyholders except those having paid only the minimum premium was declared. When the reserves for that year were released four years later, a second dividend was paid in cash to these same policyholders, bringing the total return to approximately 34 per cent. This arrangement for initial and final dividends has been continued for subsequent years until, for the year of 1919, the initial dividend declared was increased to 17.5 per cent.

This legal loss reserve is now 70 per cent of earned premiums, less losses and loss expenses paid. The total dividend returned to the policyholders up to December 31, 1920, is \$2,060,291. On December 31, 1920, the fund held a surplus, over and above legal reserves and all liabilities, of \$1,997,660 including the \$100,000 origi-

nally appropriated. For security to policyholders the fund, therefore, has the original appropriation of \$100,000, full legal reserves, a substantial additional surplus at all times, and the added protection of hidden profit contained in the excessive loss reserve.

All employers receive a minimum dividend of 10 per cent. Dividends may be withheld, however, from employers who have allowed premiums due to remain unpaid for a period of over 90 days.

Reinsurance.—The State fund was not able to obtain satisfactory reinsurance and therefore restricted its writings to a considerable extent the first year. Marine hazards, explosive manufacturing establishments, and other risks containing an apparent element of catastrophe possibilities were refused entirely. Underground mining risks were accepted only for liability limited to \$10,000 in any one disaster. With the exception of explosive manufacturing, aviation, and vessels with large crews, these restrictions were removed at the end of the first year.

Solicitation.—The fund carries on considerable solicitation for business by mail. It also does some personal solicitation through its representatives but this is limited to the large industrial centers.

ACCIDENT PREVENTION AND INSPECTION.

In addition to the accident prevention work carried on by the industrial accident commission, the fund maintains its own safety inspection department. Aside from assistance rendered its insured employers through inspection, to the end that maximum credits under the merit-rate system may be obtained for physical safeguards, the inspectors of the fund also give attention to unsafe conditions not subject to merit rating. The inspection department has also assisted in the organization of a number of safety campaigns in various industrial plants.

COLORADO STATE FUND.

The Colorado State insurance fund is administered by the industrial commission but is under the immediate supervision of a manager who is appointed by the commission. In Colorado the commission exercises a greater supervision and control of the affairs of the fund than is the case in California. The offices of the fund are combined with those of the commission and some of its employees are common to both the fund and the commission.

The administrative expenses of the fund are not paid out of the premiums, but are paid from the administrative fund of the industrial commission, which are regularly appropriated by the State.

The premium income of the fund increased from \$134,371 in 1916 to \$460,116 in 1920. During the first five years' operation of the fund, that is, up to December 1, 1920, the fund returned to its policyholders in dividends the amount of \$146,447.49 of which \$89,992.73 applied to private employers and \$56,454.76 applied to public employers. In addition to these dividends, the fund had on December 1, 1920, a net surplus, over and above all outstanding obligations, amounting to \$262,382.85.

In compensable accident cases the State fund signs a compensation agreement with the injured employee which must be approved by the industrial commission. In fact, the fund follows the same procedure that is required of other insurance carriers.

ACCIDENT REPORTING AND CLAIMS.

The State fund has the same system of indexing as the commission as regards (1) the employee's index record, (2) the employer's record, and (3) the compensation record showing date and amounts paid. In addition a duplicate compensation claim record is kept in a book by claim number, showing the amount of compensation and the medical benefits paid in each case. Two claim index records are also kept—one being used as a follow-up system. Payments are made biweekly in temporary disability cases, monthly in death and permanent partial cases. If the physician's report shows that the disability will be long, an agreement, together with a voucher covering two weeks' compensation, is sent to the injured workman to sign. The workman must sign the voucher before he will be sent his compensation check. An injured workman does not make a claim—instead he signs an agreement which serves as a claim. In compensable accident cases the State fund signs a compensation agreement with the injured employee, which must be approved by the industrial commission. In fact the fund follows the same procedure that is required of other insurance carriers. If the disability is severe, a doctor's supplementary report is not always required before a subsequent payment is made. There have been a few overpayments. If the physician's and employer's first reports show that the workman will not be disabled much over two weeks beyond the waiting period, the fund waits until the final reports are received before an agreement is sent, and the voucher and payment then cover the whole period. Checks are sent to the workman direct. When vouchers are returned by the workman they are sent to the State auditor who draws the warrants upon the State treasurer, after which they are returned to the fund for mailing.

Special investigations of claims, when deemed to be necessary, are made by the claim adjuster or a special investigator of the commission. The fund has no regular salaried medical adviser but refers cases for examination to special physicians. The fund and commission have adopted a medical fee schedule. This schedule is somewhat lower than the prevailing medical rates. The schedule rates are uniform for the entire State.

Hearings.—As already noted, compensable accident cases are settled by voluntary agreements which must be approved by the commission. In disputed cases an application for a hearing must be filed before the commission's referee. Appeal may be had from the referee's decision to the commission, and from the decision of the commission to the courts. The fund, however, is not allowed to appeal to the commission except through its assured employer.

ACTUARIAL AND ACCOUNTING DEPARTMENT.

Classifications and rates.—The National Workmen's Compensation Service Bureau's manual classifications are used by the fund. Originally the fund rates were 5 per cent lower than the stock company rates. The stock companies raised their rates 5 per cent because of war conditions. The State fund rates, however, remained as before. This was the situation up to July, 1919, when the new compensation benefits went into effect. The National Bureau companies then raised their rates about 12 per cent. The fund is now

writing rates equivalent to those charged by the stock companies prior to the 1919 increases. These rates are about 10 per cent less than the present stock-company rates.

Merit rating.—The merit-rating system of the National Bureau has been adopted by the State fund, the administration of which is conducted through the Colorado branch of the bureau.

Distribution of risks.—Metal mining constitutes most of the fund's business, about 65 per cent of the premiums coming from this source. The fund insures about 50 per cent of the metal mines of the State.

Pay rolls and premiums.—Premiums are paid in advance for a six months' period on the estimated pay roll. At the end of the period the actual pay roll is reported and the premium adjustments are made. At the same time dividends are computed and declared. About 30 employers report their pay roll and pay upon a monthly basis, making an initial deposit premium of one month which remains as a permanent deposit.

The premium record is kept in a premium journal. The premium record of each firm and a cash receipt book and a cash disbursement book are also kept. All banking is done with the State treasurer, who is custodian of the fund. No class ledger is kept, except that premiums and losses are divided into three groups (mining, power, and all others) for dividend purposes. Losses and reserves are computed from individual compensation cards. The insurance policy is subject to cancellation if the premiums are not paid within 20 days. The annual premium income of the fund increased from \$134,371 in 1916 to \$460,116 in 1920.

Claim reserves.—The claim reserves are computed as follows: (1) In death and permanent partial disability cases the full amount is set up; (2) in permanent total disability cases, the Danish survivorship table (Fondiller), discounted at $3\frac{1}{2}$ per cent, is used as a basis; (3) temporary disability cases—Table C of the New York State fund is followed for all indeterminate cases under six months; for such cases over six months the amount set up is less than that provided by Table C; (4) in unreported losses, the New York State fund method is followed.

Catastrophe reserve and surplus.—The fund has no catastrophe reserve apart from the surplus. The fund's surplus as of December 1, 1920, was \$262,382.85. It is the aim of the fund to have and maintain a surplus (including a catastrophe reserve) of \$500,000. At present the fund sets aside 15 per cent of its premium annually as a surplus.

Reinsurance.—The fund does not reinsure because of the excessive reinsurance rates charged.

Dividends.—The amount of dividends to be declared depends upon the experience produced for each six-month period for each of the three groups of industries (metal mining, power, and all others). Dividends are declared every six months and credited upon the next year's premiums. If a firm withdraws, it loses its dividends, but if a firm goes out of business its dividends are remitted. The business of public employers is kept separately. Such employers are divided into State, municipalities, schools, irrigation districts, etc.—five classes in all. The amount of the dividends is determined from the experience of each class.

The total amount of dividends declared up to December 1, 1920, was \$89,992.73 for private employers and \$56,454.76 for public employers, making a total of \$146,447.49. For dividend purposes the risks of the fund are divided into the following four large groups: Metal mining, power companies, all other private classifications, and public employments. The per cent of dividends declared varies with the group and with the year, and averages approximately 12 per cent for metal mining, and 5 per cent for power companies.

Expenses.—The expenses of the fund are paid out of the administrative fund of the commission, which is appropriated by the State. The fund's expenses are not kept separately from those of the commission.

Solicitation of business.—The fund obtains its business through letter solicitation only. The pay-roll auditor of the fund is not used for this purpose. The State and its political subdivisions must insure with the State fund.

Investments.—The investments of the fund's reserves and surplus are made by the State treasurer upon recommendation of the commission. The State law requires all State investments to be made in State bonds.

Liability of the State.—The State of Colorado assumes no liability for compensation payments, present or future, due from the State fund. If the liability of the fund exceeds its assets at any date it becomes technically insolvent.

Supervision over insurance rates and policies.—The compensation law requires the industrial commission to approve the adequacy of all compensation rates before the same shall take effect and to approve the form of policy.

ACCIDENT STATISTICS.

No accident statistics have as yet been compiled by the State fund, although it intends to organize a statistical department and to this end has installed Hollerith machines.

SAFETY WORK.

Neither the State insurance fund nor the industrial commission performs safety work. Under the compensation law the commission is authorized to enforce the State safety laws but this function has thus far been exercised by other State departments.

IDAHO STATE FUND.

The Idaho State insurance fund as originally created in 1917 was an independent department under the direction of a State insurance manager. In 1919, however, the "cabinet" system of government was adopted in the State and the fund was placed under the department of commerce and industry. This department now consists of a bureau of banking, a bureau of insurance, at whose head is the insurance commissioner, and the State insurance fund, immediately administered by an insurance manager. The insurance manager is appointed by the governor; he is authorized to appoint his own employees. It is the duty of the State insurance manager, in connection with administering the State fund, to enforce the compulsory

insurance provision of the compensation act. The fund is also the repository for the bonds required of self-insurers and insurance companies.

The administrative expenses of the fund are paid in the first instance out of the State treasury from moneys regularly appropriated. This amount, however, is later refunded to the State treasury by the fund out of its premium income.

The premium income of the fund increased from \$224,549, in 1918 to \$354,196 in 1920. The total surplus of the fund as of October 31, 1920, was \$246,400 of which the catastrophe reserve constituted \$86,294. Thus far, the fund has declared no dividend.

The fund adjudicates its compensation claims upon written reports from the workman and attending physician, supplemented by examinations and investigations. At the end of the disability period the fund transmits to the industrial accident board for approval a summary and award, which shows the time lost, the wages, the nature of the disability, and the amount of compensation and medical benefits awarded. In disputed cases, either party may apply to the industrial accident board for a hearing. Appeal to the courts may be had from the board's decision.

ACCIDENT REPORTING AND CLAIM SETTLEMENTS.

As in the case of the Idaho Industrial Accident Board, a report of the accident is required from the injured workman, which is countersigned by the employer, and from the attending physician. When the accident report is received it is verified as to coverage by the actuarial department; the risk and manual numbers are assigned; the report is given a claim or accident number, and a notation is made as to whether the employer has a hospital contract. An employee's claim record card is made out and filed in alphabetical order by name of employee. Physician's and employer's supplementary reports are requested after five days. In noncompensable cases a fee bill is sent to the attending physician after his report of the accident is received.

When all of the reports have been received they are examined by the claims adjuster. An examiner's report is made out, which, after being approved by the manager, is turned over to the actuarial department and payments are made. Each check is signed by the State fund manager and by the commissioner of the department. At the end of the disability period the fund transmits to the industrial accident board for approval a summary and award report which shows the time lost, the wages, the nature of the disability, and the amount of compensation and medical benefits awarded. In disputed cases either party may apply to the industrial accident board for a hearing. Appeal to the courts may be had from the board's decision.

The fund has a part-time medical adviser who examines claimants and advises the fund on medical questions.

ACTUARIAL AND ACCOUNTING DEPARTMENT.

Classifications and rates.—The fund is authorized to formulate its classifications according to the hazard and to determine rates therefor. The classifications and rates adopted were formulated by the actuary of the Ohio Industrial Commission, who has been retained as a consulting actuary for the Idaho State fund. The rates charged

by the fund are somewhat lower (stated by the manager to be from 15 to 25 per cent lower) than the manual rates quoted by the stock companies. The fund submits its earned premiums and incurred losses, by classifications, to its consulting actuary, who determines the rate from these data, supplemented by the experience in other States. If the premiums fixed for any class are subsequently found by the manager to have been too small for any period, he may determine what additional premiums are required from said class or for said period, and may make assessment accordingly. The fund, however, has as yet made no special assessment.

The fund has adopted an experience rating system modeled after the Ohio plan. The application of this rating system has resulted in a reduction of about 2 per cent of the basic rates.

Pay roll and premium income.—The actuarial and bookkeeping methods of the fund were installed by the consulting actuary and follow closely the Ohio system. Upon receipt of the employer's application he is sent a premium advice, giving classification, rate, etc. The employer then reports his estimated pay roll. He is then sent a pay-in order or statement covering the premium on the estimated pay roll. Upon receipt of this by the fund he becomes a subscriber. Thereafter actual pay rolls are reported. Logging operators report monthly; mining operators, quarterly; other employers, semiannually or annually. At the end of the monthly or quarterly period premiums based upon actual pay rolls are submitted. The premiums which were paid on the estimated pay roll are an advance payment and act as a deposit. At the end of the year a settlement sheet, showing the premium adjustment is made, credit or debit being given as the case demands. A charge of \$3 is made for each policy written and for renewals.

The pay-in orders or statements are recorded in a pay-in order register in numerical order. The receipts or actual payments are recorded in a receipt record register. From this they are posted to the actuarial record, in which is kept the premium record for each risk, and then to the class ledger, which shows the premiums for each manual classification. Only premium income is kept in these books, losses being kept in separate books.

The State and other public corporations may insure their liability for compensation with the State insurance fund but not with any other insurance carrier unless the fund shall refuse to accept the risk when the application for insurance is made.

If an employer shall default in his premium payment the fund may collect the same by civil action. If such employer is in default for 10 days, he shall also be liable to a penalty of \$1 for each of his employees for every day during which such failure continues. The amount of premiums in the course of collection as of October 31, 1919, was \$60,102, of which approximately \$20,000 was due over 90 days.

The total premium income of the fund increased from \$224,549 in 1918 to \$354,196 in 1920.

Losses.—Compensation awards and payments are taken from the claims examiner's report and recorded in a "record of awards made," which shows both the awards and the payments made for each disability on account of each claim. The losses are then posted to an

employer's claim record, which also shows the awards and payments made. No record of losses by classes is kept as yet. These must be obtained from the employer's claim record. A pension record is kept of fatal and permanent disability cases.

Pay-roll auditing.—The fund does not attempt to audit the employer's pay roll regularly. Occasionally the chief accountant or auditor makes a trip and audits pay rolls. These spasmodic audits have resulted in bringing in several thousand dollars in extra premiums. The fund admits that a considerable amount of premiums are lost because pay rolls are not audited.

Reserves and surplus.—Ten per cent of the annual premiums is required to be set aside by the fund for the creation of the surplus until such surplus shall amount to \$100,000 and thereafter 5 per cent until such time as, in the judgment of the manager, the surplus shall be sufficiently large to cover the catastrophe hazard and all other unanticipated losses. The total surplus as of October 31, 1920, was \$246,400, of which the statutory surplus fund (catastrophe) constituted \$86,294. The reserves for outstanding and anticipated losses are determined by the fund, subject to the approval of the insurance commissioner. These claim reserves are computed by the consulting actuary of the fund.

Reinsurance.—The fund carries reinsurance on its catastrophe hazards to the amount of \$250,000.

Dividends.—The law authorizes the fund to declare dividends, but as yet none have been declared.

Solicitation of business.—The fund has made no consistent attempt to obtain new business. The pay-roll auditor when in the field does some solicitation.

ACCIDENT STATISTICS.

No accident statistics have been kept by the fund for some time.

SAFETY WORK.

The fund performs no safety and inspection work in behalf of its insured. The accident-prevention work of the State is under the jurisdiction of other State departments.

MARYLAND STATE FUND.

The Maryland State insurance fund is administered by the industrial accident commission but is under the immediate supervision of a manager appointed by the commission. As regards administration the fund is practically an integral part of the industrial commission. The offices of the fund are combined with those of the commission and some of its employees are common to both the fund and the commission.

The administrative expenses of the fund in the first instance are paid out of the State treasury from moneys regularly appropriated. This amount, however, is later refunded to the State treasury by the fund out of its premium income.

The premium income increased from \$46,829 in 1915 to \$211,682 in 1920. The total net surplus of the fund as of October 31, 1920, was \$352,465, which included a catastrophe reserve of \$68,775. The fund declared a dividend of 25 per cent in 1920.

The adjudication of compensation claims is based primarily upon written reports received from the employer, the physician, and the

workman. The industrial accident commission determines the amount of compensation to be paid and makes an award to this effect. Upon receipt of this award by the fund payments are made. In case of dispute appeal may be had to the commission and from the commission to the courts.

ACCIDENT REPORTING AND CLAIMS.

The State fund uses the same report forms (employer's report, physician's report, and workman's claim) as those used by the commission. In fact, the claim procedure of the fund is closely connected with that of the commission.

When an employer's report is received it is indexed in a book in numerical order by accident or claim number. The index shows the number and date of the accident, the employee's name, and the policy and classification numbers. The report is compared with the policy file to ascertain whether the employer is insured, at which time the class number is assigned. The fund is not concerned as to whether the premiums have been paid, compensation being paid regardless of this fact. The fund must accept all risks offered.

Two claim index cards are made out. Each card contains the names of the employee and employer, the accident number, the policy number, and the date of injury. One card is filed in alphabetical order by employee's name and one by employer's name.

Upon receipt of the employer's report the physician's report and the workman's claim are requested if no claim is on file with the commission. The commission notifies the fund (each insurer in fact) when a claim is received. If the employer's report is received by the fund first, a copy is made and sent to the commission; if received by the commission first, a copy is made by the commission and transmitted to the fund.

The commission determines the amount of compensation to be paid and an award is made to this effect. Compensation is paid weekly after the commission's award is received and continues during the disability period estimated by the attending physician. The physician's supplementary reports are requested immediately prior to the expiration of the estimated disability. Pension cases are also paid weekly. The medical service of the fund is under the direction of the chief medical examiner of the commission.

ACTUARIAL AND ACCOUNTING DEPARTMENT.

Classifications and rates.—The industrial accident commission is authorized under the law to determine the classifications according to hazard and to fix the rates thereon. These classifications and rates have been formulated by the actuary of the Ohio Industrial Commission, who has been retained as the consulting actuary for the fund. The rates are somewhat lower than those of the National Workmen's Compensation Service Bureau. The rates charged by the State fund are not subject to the supervision of the insurance department. The fund has adopted an experience rating system modeled after that of the Ohio plan. A minimum premium is charged which varies with the hazard of the classification.

Pay roll and premiums.—Employers are required to submit a payroll estimate for a four-month period. Some employers send with

the pay-roll report a remittance covering the premium. Most of the employers, however, do not and are billed for the amount. Adjustments are made at the end of the four-month period, the difference being added to or subtracted from the estimated premium for the next period.

A firm premium record card is made for each employer and filed by policy number. Upon this card is entered the premium amount, when due and when paid. The premiums due are also posted to the premium journal. Receipts of premium payments are entered in the cash book, and the amount is deposited with the State treasurer.

The State fund has a revolving fund of \$5,000 from which current payments are made. A list of the compensation checks is sent weekly to the State treasurer who credits or reimburses the fund for the total amount as shown by the list. Fund checks are signed by the fund auditor, the superintendent of the fund, and the chairman of the commission.

A loss record card is also kept for each employer, showing the losses paid. The losses are also recorded in a loss payment book which shows the date entered, the claim number, and the kind of disability (death, medical, permanent partial, temporary total, etc.). Losses are not kept by firm or by class, and premiums are not kept by class. The total premium income increased from \$46,829 in 1915 to \$211,682 in 1920.

Pay-roll audit.—The employers' pay rolls are audited annually.

Reserve and surplus.—Ten per cent of the annual premiums is required to be set aside for the creation of a surplus until such surplus shall amount to \$50,000, and thereafter 5 per cent until, in the judgment of the commission, the surplus shall be sufficiently large to cover the catastrophe hazard. The total surplus as of October 31, 1920, was \$352,465, of which the catastrophe surplus constituted \$68,775.

Dividends.—The fund declared a dividend of 25 per cent in 1920.

Reinsurance.—The fund has reinsured against catastrophe hazard losses between \$25,000 and \$75,000.

Administrative expenses.—The administrative expenses of the fund in the first instance are paid out of the State treasury from moneys regularly appropriated. This amount, however, is later refunded to the State treasury by the fund out of its premium income.

Solicitation of business.—The fund makes practically no attempt to solicit business. According to the industrial accident commission it is not the purpose of the fund to become an active competitor of private insurance companies. Its purpose is rather to become a regulator of insurance rates and to furnish insurance to employers who do not care to or are unable to obtain insurance from the private companies.

ACCIDENT STATISTICS.

The fund compiles and furnishes no accident statistics apart from those of the industrial accident commission.

SAFETY WORK.

Neither the fund nor the commission performs accident prevention work, this being the function of other State departments.

MICHIGAN STATE FUND.

The Michigan State insurance fund is administered by the commissioner of insurance, but is under the immediate supervision of a manager appointed by the commissioner. The law also provides for the creation of an advisory board consisting of 15 policyholders in the fund, who with the commissioner of insurance determine the policy of the insurance fund.

The administrative expenses of the fund are paid out of the premiums. The premium income of the fund for the year ending June 30, 1920, was \$402,685. The fund has declared an annual dividend of 10 per cent, except that in 1914 a 20 per cent dividend was declared. The catastrophe surplus of the fund as of June 30, 1920, was \$148,623.

In compensable accident cases the State fund signs a compensation agreement with the injured employee, which must be approved by the industrial accident board. In cases of dispute either party may file an application before the board for a hearing. Appeal to the courts may be had from the board's decision.

ACCIDENT REPORTING AND CLAIMS.

The following accident reports are required by the fund: The employer's first report; the physician's first, weekly, and final reports; a card from the employer when the employee returns to work; and the compensation agreement between the fund and the injured workman.

When the first report is received it is indexed in a book, in numerical order, a number being given at the time. This index contains the number of the accident, the names of employee and employer, the date and nature of the accident, and the dates of receipt of the employer's report, the surgeon's report, the surgeon's bill, the hospital bill, and the return-to-work card.

The report is also indexed in a loss-record book, which shows the history of each claim, including the date of the accident, the agreements sent and approved, the wages, the cause and nature of accident, the medical and hospital benefit, the names of employee and employer, and the amounts and dates when the compensation is paid. The reports are indexed in alphabetical order by the employee's name, the compensable and noncompensable cases being kept separately. A request for missing reports is sent out at the time. A jacket is made, which is filed in numerical order by accident number, awaiting developments. Once a week the loss-record index is examined and missing reports or agreements are requested.

Agreements in duplicate are sent to the employer, who requests the injured employee to sign them. When returned, one agreement is sent to the industrial accident board for approval; the other is kept on file. No payments are made until notice of approval by the board is received by the fund. Payments are generally made for a two-week period; in fatal or permanent partial disability cases they are made monthly. When the case is closed the card is taken out of the loss-record index and filed in a permanent file in numerical order.

In short disability cases a report from the employer is awaited as to whether the employee returned to work. Periodical reports are required from the attending surgeon, before each payment is made, except in unusually severe cases. The fund makes an investigation of the accident in doubtful cases. Compensation checks are signed

by the manager and assistant manager and are drawn upon the State treasurer. The fund has no regular medical adviser, but employs local physicians upon a fee basis.

ACTUARIAL AND ACCOUNTING DEPARTMENT.

Classifications and rates.—The fund has adopted the National Workmen's Compensation Service Bureau's manual classifications, but its rates are from 25 to 30 per cent lower than the manual rates. On several classifications the rates have been based upon the fund's own experience. As regards minimum premiums the fund has adopted the plan of the National Bureau.

Merit rating.—A modified plan of the National Bureau's schedule rating system on manufacturing risks has been adopted by the fund, which has reduced the general level of the rates about 10 per cent. The fund inspects its own risks prior to the writing of the policy.

Distribution of risks.—The fund has no mining risks but has a considerable number of sawmill, logging, machine shop, and construction risks. The fund has a large number of small risks not solicited by other carriers.

Pay rolls and premiums.—Premiums on the estimated pay roll covering an entire year must be paid in advance. A statement of the amount is sent to the employer, which must be paid within 45 days. At the end of the year the actual pay roll is reported. Adjustments on pay roll and dividends are then made. The fund may cancel the insurance policy if the premiums are not paid. Premiums in default are collected by the attorney general.

Pay roll and premiums are entered upon a firm premium record card (yellow). As premiums are paid and the premium and dividend adjustments are made they are entered upon the same card. Two firm-loss record cards are kept—one for the employer (white), the other for the employee (orange). These show the losses of each employer. From these two cards are made the group classification, which shows the pay roll and losses, not by individual classification, but by the manual groups. The total premium income for the year 1920 was \$402,685.

Pay-roll audit.—The fund aims to audit the employer's pay roll once a year, but falls short of its aim. The fund has only one pay-roll auditor.

Administrative expenses.—The administrative expenses of the fund are paid out of the premium income.

Reserves.—In case of fatal and permanent disability accidents the full reserve is set aside. In temporary disability cases the outstanding losses are based upon the estimated disability as determined by the attending physician. The catastrophe reserve of the fund as of June 30, 1920, was \$148,623.

Dividends.—The fund has declared annually a dividend of 10 per cent, except that in 1914 a 20 per cent dividend was declared. Credit for the dividend is given on the next year's premium unless the risk goes out of business, in which event it is returned to the employer. Risks changing their insurance carrier are not entitled to dividends.

Liability of the fund.—The State disclaims liability beyond the amount of the fund.

ACCIDENT STATISTICS.

No accident statistics have been compiled or published by the fund.

SAFETY WORK.

The fund performs no accident-prevention work.

MONTANA STATE FUND.

The account of the Montana State fund is incorporated with that of the Montana Industrial Accident Board (pp. 177 to 182).

NEW YORK STATE FUND.

The New York State insurance fund is administered by the industrial commission, but is under the immediate supervision of a manager appointed by the commission. The employees of the fund are appointed by the commission, subject to the civil-service laws of the State.

The administrative expenses of the fund in the first instance are paid out of the State treasury from moneys regularly appropriated. This amount, however, is later refunded to the State treasury by the fund out of its premium income. The premium income of the fund increased from \$1,269,433 in 1915 to \$3,573,047 in 1920. The fund has declared an annual dividend of approximately 12 per cent. The total dividend returned to policyholders as of December 31, 1920, amounted to \$1,946,516. The net surplus of the fund as of December 31, 1920, was \$1,608,063, of which the catastrophe surplus constituted \$802,424 and the general surplus \$805,639.

The fund is at present reorganizing its method of claim procedure. Under the old system practically no records were kept apart from those kept by the commission. In brief, the fund was merely the disbursing department of the commission, paying the claims when and as awarded by the commission. It is the present aim of the fund to be an entirely separate unit of the commission, having its own records.

The compensation cases of the fund, in common with those of other insurance carriers, are adjudicated by the commission, which determines the award in each case. Upon the basis of this award the fund makes its compensation payments. In disputed cases appeal may be had to the commission and from the commission to the courts.

ACCIDENT REPORTING AND CLAIMS.

The fund is reorganizing its entire method of claim procedure. Under the old system practically no records were kept apart from those kept by the commission. In brief, the fund was merely the disbursing department of the commission, paying the claims when and as awarded by the commission. It is the present aim of the fund to be an entirely separate unit of the commission, having its own records; in fact, doing business as any other insurance carrier.

The following is a description of the methods as now practiced by the fund, part of which are new and part old. The fund receives directly from its insured or through the commission the employers' reports of every accident. If the reports are made in duplicate the fund retains one and sends the other to the commission. If only a

single report is received, the fund makes a copy of the report (actuarial card) and the original is sent to the commission.

Upon receipt of the employer's report the coverage is determined from the employer's insurance index in the actuarial department. In this card index employers are arranged in alphabetical order. Each card contains the policy number and the date of inception and expiration of policy and whether canceled. The date of the accident on the report is compared with the date of the policy. The policy number and the date are entered upon the accident report, the classification determined from the classification index and the proper class and group numbers assigned to the accident report. The classification card is filed by policy number and contains the several industry classifications and the group number of the risk, with the gross and net rates and the estimated pay roll for each class. The classifying is done by one clerk. The groups are used for dividend purposes.

The accident reports are numbered consecutively. Index cards are made, but before indexing the employer's index is searched as to whether a report of the accident has already been received. Index cards in duplicate are filed in alphabetical order, one by the employer's name and one by the employee's name. Each card contains the names of the employer and the claimant, the date, and the number of the accident. Actuarial cards are then made in triplicate. The original goes to the actuarial department, one copy to the docket file, and the other to the claim file or jacket which is made out at this time.

The accident report then goes to the medical examiner of the fund, who supervises the medical treatment of the claimant. If it is an ambulatory case, the claimant is called in for examination and referred either to the Wolff Medical Service (see p. 142) or to other physicians or specialists; if it is a hospital case, an investigator is sent out to look into the treatment. Reports as to the condition of the patient are received every two weeks. Copies of all reports on cases are sent to the commission immediately or at the time of the hearing and are made a part of the record of the case.

Payments.—Payments are made either in advance of or upon the award of the commission. The fund makes advance payments on records filed or on investigation reports. Formerly checks were made out by the cashier of the commission, approved by the fund's claim auditor, and signed by the secretary of the commission. All checks are drawn on the State treasurer, who receives warrants signed by the fund manager and two commissioners. At present checks are made out directly by the claim auditor of the fund and signed by the cashier and secretary. If the case is clear, payments are made in advance of the commission's award. Credit for advance payment is given at the time of the hearing. Formerly no payments were made until after the commission had made its award and such award had been certified on a "confirmation sheet," which was a list of fund cases in which the commission's award had been made, and which showed the main facts of each case and the amount of the award. This confirmation sheet was an order on the cashier to pay the claims. At present the confirmation sheet is no longer used, payments being initiated directly by the claim auditor of the fund.

Branch offices.—Accidents up-State are handled by the branch offices (Albany, Syracuse, Rochester, and Buffalo) of the commission and fund. Hearings are held by the deputy commissioner and awards made. Employer's accident reports are received at the branch office. Requests for the doctor's report and the workman's claim are sent out by the division of claims of the commission. The fund representative sends a copy of the employer's accident report and synopsis of claim to the fund in New York City. Notice of the award is given to the fund representative and immediately forwarded to the home office in New York City where payments are made by the commission. These payments were formerly made from the confirmation sheet but are now made directly from the award. If the fund representative approves the claim it is paid in advance of or upon award of the commission. If not, the case is set for a hearing before a deputy commissioner.

Wolff Medical Service.—The medical treatment for a large proportion of the State fund's New York City cases is handled by the Wolff Service. This service has a central office in New York, conducts a physiotherapy hospital, and has about 60 doctors in Greater New York. In case of an accident the workman is referred to the nearest doctor for attention. A fund investigator investigates the case. The injured workman is called in and examined by the medical adviser of the fund. He is then referred to the Wolff Service or to other physicians or specialists. The Wolff Service makes periodic (every two weeks or oftener) reports to the fund as to the progress of the case. A charge of \$3 is made for each case. The charges of the Wolff Service appear to be reasonable, and according to the fund injured workmen return to work sooner than they otherwise would.

ACTUARIAL AND ACCOUNTING DEPARTMENT.

Classifications and rates.—The fund is authorized under the law to determine the classifications according to the hazard and to fix the rates thereon. The manual classifications of the National Workmen's Compensation Service Bureau were used at the beginning of 1914, but in 1915 the fund withdrew from the rating board and used its own manual. However, in 1916 the fund reentered the rating board and readopted the manual classifications.

The fund rates in 1914 were $8\frac{1}{2}$ per cent lower than the manual rates; from 1915 to 1917 20 per cent lower, and since 1917 15 per cent lower. This 15 per cent reduction applies uniformly except in the classification of house wrecking, where a higher rate is charged. Higher rates are also charged on individual risks where the hazard is greater than the normal hazard of the class. The minimum premium depends upon the hazard of the class, the lowest minimum premium being \$10. The fund does not compute pure premiums. The adequacy of the rates is determined from the loss ratio as shown by the actuarial cards and the policy file.

Merit rating.—There are two kinds of merit rating in vogue. Experience rating is applied to all risks with a sufficient premium to qualify, and schedule rating is applied to all manufacturing risks which qualify under the plan. The latter, however, must have a certain premium income before becoming subject to experience rating. Rating plans are formulated and applied by the rating board. Schedule inspections are made by the rating board.

The rating board makes one complete rating survey during each policy term of all risks subject to schedule rating for which the annual estimated pay roll is not less than \$10,000, and where the annual estimated premium (computed at stock-company manual rates) is not less than \$100. It is optional with the insurance carrier to have one interim inspection, covering certain items specified by it, made by the rating board during a policy term.

Policies.—The insurance policy covers all employees. It can not be canceled before the expiration of the policy. It is automatically renewable. There are two kinds of policies: "A," which covers both compensation and medical benefits; "B," which covers compensation benefits only. On "B" policies a credit of 17½ per cent on the manual rate is given. Formerly policies were issued for a six-month period, now either for six months or a year.

Pay-roll premiums and losses.—In his application for insurance the employer includes a notice of election. The application contains the estimated average number of employees and estimated pay roll for each classification enumerated on application blank. The fund applies the rates and the amount of advance premium and the employer is billed for the amount. Coverage can not be extended until the entire advance premium (or deposit premium) as determined by the fund is paid. The application form also calls for the names of all the insurance carriers which previous thereto have carried the risk. This is necessary in order that the inspection rating board may determine experience rating credits.

When the advance premium (or deposit premium) is paid a policy is written. The fund must accept all policies offered,³⁸ but a policy can not be canceled until the end of the policy period.

Municipalities are classified according to the manual occupation the same as private employers. The State of New York pays a flat rate on all hazardous work. Nonhazardous employments are not insured, the State carrying its own risk on such employments.

A statement covering the advance renewal premium is submitted on or about the date of maturity of the current policy period. An adjustment bill, embodying both adjustment of earned premium, based on the pay-roll report or audit, and dividend, is submitted as soon as possible after the declaration of dividends. If these bills are not paid within 30 days a statement is rendered the assured calling his attention to his delinquency, and if payment is not forthcoming within 10 days from the mailing of this statement, either a representative of the State fund calls on the assured, or the assured is called up on the telephone, or a letter is addressed to the assured threatening cancellation. If the account is not paid at the expiration of 10 days a cancellation notice is sent by registered mail, canceling the policy as of a date 10 days subsequent.

Four copies of bills are made, the first copy going to the assured, the second copy into the folder, the third, after being posted on the policyholders' ledger and after a tabulating-machine card is punched, is filed according to bill number in a loose-leaf book, and the fourth copy is used as a follow-up copy for collection purposes, and after having served that purpose is filed away as a work sheet for

³⁸ But the fund is free to adjust its rates with a view to offsetting any adverse effect of its inability to refuse a risk.

the next bill. In the case of cancellation, a final bill is rendered the assured, based in most cases on an audit of the assured's pay roll. In the case of policyholders located in inaccessible communities, this final cancellation bill is based on the reported pay roll. This final cancellation bill and bills covering new business are handled in practically the same way as are the renewal and adjustment bills.

In accordance with a specific provision of the law creating the State fund, all bills unpaid for unreasonable periods are referred to the attorney general for collection.

A tabulating-machine card is punched for each bill drawn up. The totals of the various items from these cards are checked twice each week against figures representing the changes in the policyholders' ledger taken in conjunction with other items posted therein (cash receipts, refunds, etc.). These totals are entered in the general ledger.

Premium and other receipts are posted from the cashbook direct to the policyholders' ledger and checked through controlling accounts as outlined above.

Loss payments are reported to the accounting division in the form of carbon copies of checks issued, containing all information as to claim number, name of claimant, period of accident, etc. Tabulating machine cards are punched for each check, and the necessary tabulations by period of accident, industry group, type of case, etc., obtained from these cards; only such totals are entered in the books of account.

The earned premiums of the fund increased from \$1,269,433 in 1915 to \$3,573,047 in 1920.

Reserves.—The actuarial department of the fund computes the reserves (approved by insurance department) not only for the fund but for all the commission's cases. The computations of reserves in fatal cases are based on the Dutch remarriage table and the Danish survivorship table, present worth being discounted at $3\frac{1}{2}$ per cent.

The reserves for permanent total disability are based upon the Danish survivorship table, discounted at $3\frac{1}{2}$ per cent.

Up to 1920 the mortality factor was taken into account in determining the reserves for permanent partial disability. This factor is now disregarded unless the injured man is known not to have a dependent wife or children under 18 years of age. This change in procedure arises from the fact that a 1920 amendment makes an award in these cases revert to these dependents in case of the death of the injured man. The reserves in case of temporary total disability are based upon a table formulated by the fund. A former table gave reserves too high for serious cases and too low for minor cases.

Catastrophe fund and surplus.—Ten per cent of the premium is set aside for a catastrophe fund until it amounts to \$100,000; thereafter 5 per cent is set aside. The total surplus as of December 31, 1920, was \$1,608,063, of which the catastrophe surplus constituted \$802,424 and the general surplus \$805,639.

Dividends.—Dividends are based on the loss ratio determined in accordance with the experience of each group. Dividends are uniform within each group except that firms having a loss ratio of over 100 per cent receive no dividends. Firms withdrawing from the fund are entitled to dividends.

For dividend purposes the classifications were, until June 30, 1920, divided into six general groups (light manufacturing, heavy manufacturing, contracting, tunneling, transportation, and special groups). Since this date the light and heavy manufacturing groups have been combined into one. The special group consists of industries that have a special hazard, but include all the employers within the industry. The total dividends allowed to policyholders as of December 31, 1920, amounted to \$1,946,516.

Administrative expenses.—The administrative expenses of the fund are paid in the first instance out of the State treasury from moneys regularly appropriated. This amount, however, is later refunded to the State treasury by the fund out of its premium income.

ACCIDENT STATISTICS.

The fund has recently reorganized its statistical department and procedure. At present all statistical work is handled by the punch-card machine tabulation system. A card is punched for each loss payment, showing the date of accident, the policy number, the group number, the claim number, the date of payment, and the amount paid, with designation as to whether it is compensation, medical, or claim-adjustment expense.

Two series of cards are used in connection with the individual accidents. A preliminary card is punched for each case on which a reserve is carried and a final card for each case involving no loss or upon which payments have been entirely completed. These cards carry the year and month of accident, the policy number, the group number, the manual classification, and the nature and extent of the injury. The preliminary card also carries the valuation date to the compensation paid and reserve, and medical expense paid and reserve, as of this date. The final card carries the age, the wage of the injured employee, the cause of the accident, its duration (if temporary disability), the incurred compensation, and the medical cost.

A fourth series gives the audited pay roll and premium for each classification and period. It is probable that an additional series will be installed showing for each policy the audited premium, the dividend, and both the old and the new advance premium.

ACCIDENT PREVENTION.

The fund has 11 safety inspectors, of whom 7 are in New York City and 4 up-State, under the supervision of a chief safety engineer.

Inspections are made of manufacturing plants, contracting work, mining, quarrying, etc., and any other operations that are insured in the State fund. Investigations are also made of all fatal accidents to employees of assured and of nonfatal accidents where it appears that an investigation is desirable so that means for preventing a similar accident may be adopted if possible.

Purposes of inspections.—The inspections are made for the following purposes: (a) To enable the underwriting department to determine the proper classification of risks, the probable annual pay roll, and what subdivision of the pay roll, if any, may be proper. In the case of building construction or demolition, etc., the inspector also works out an estimate of the probable pay-roll expenditure on the job. Recommendations for safety are also made on such inspections.

(b) To point out to the assured conditions in their plants which do not comply with standards and to explain to them the proper safeguarding of such conditions, including the formation of plant safety organization, establishment of plant hospital, and first-aid arrangements, etc. By complying with safety recommendations covering such conditions all risks subject to schedule rating may obtain an appropriate reduction in their rate upon inspection by the rating board. The fund also advises the assured of the annual saving for compliance with each recommendation, if such information is desired.

(c) To ascertain if the assured has complied, in accordance with standards, with recommendations previously submitted.

PENNSYLVANIA STATE FUND.

The Pennsylvania State insurance fund is under the jurisdiction of a specially created workmen's insurance board consisting of the State treasurer, the insurance commissioner, and the commissioner of labor and industry. The fund is administered by a manager appointed by the board with the approval of the governor. The board also appoints the employees of the fund.

The administrative expenses of the fund were originally paid from a \$300,000 fund appropriated by the legislature at the time that the fund was created in 1915. An additional \$200,000 was appropriated in 1917. However, since July 1, 1919, the administrative expenses of the fund are paid out of the premiums.

The premium income of the fund increased from \$770,094 in 1916 to \$3,186,668 in 1920. The fund has declared an annual dividend of approximately 10 per cent on coal mining and 15 per cent on industrial risks. The total dividends declared as of December 31, 1920, were \$389,537. The total surplus of the fund as of December 31, 1920, was \$3,266,145, which included the \$500,000 originally appropriated for the administrative expenses of the fund, and the catastrophe surplus of \$509,340. The net surplus, therefore, including the catastrophe reserve, was \$2,766,145.

In compensable accident cases the State fund signs a compensation agreement with the injured employee which must be approved by the bureau of workmen's compensation of the department of labor and industry. In case of dispute either party may file an application for a hearing before a referee of the department of labor and industry. Appeal may be had from the referee's decision to the workmen's compensation board (an independent body), and from the board's decision to the courts.

ACCIDENT REPORTING AND CLAIMS.

Accident reports are made out by the insured employer in triplicate, one copy being retained by the employer and two copies being sent to the fund, one of which is forwarded to the workmen's compensation bureau in cases in which disability exceeds one day. The reports are divided into three classes: (1) Noncompensable cases, or those disabled not more than 10 days, (2) compensable cases, and (3) doubtful cases.

Abstract cards are made for each accident, two cards for groups one and two, and three cards for group three. One set of cards is filed in alphabetical order by name of the employee and one set by

name of the employer. The third card in group three is filed in chronological order not exceeding ten days in advance. On the date due, unless supplemental reports or other information for group three has been received, investigation forms are sent to investigators. Non-compensable cases are closed and filed after the facts are determined to a certainty. In compensable cases an agreement form and a synopsis of the accident report on a special form are sent to the investigator for attention.

The fund enters into an agreement with the injured employee which must be approved by the bureau of workmen's compensation of the department of labor and industry. In case of dispute either party may file an application for a hearing before a referee of the department of labor and industry. Appeal may be had from the referee's decision to the workmen's compensation board and from the board's decision to the courts.

Compensation payments are made by check every two weeks. Checks are dated two or three days in advance in order that the employee may have the money on the date due. Indorsement of check serves as receipt. Before a check is made out the case is always checked with the files. Reinvestigations are made when the occasion demands.

Accident acknowledgment to the insured employer requests the latter to request the attending physician to send in a medical bill and report, using a special form for the purpose. Medical charges may be investigated by an investigator of the fund.

Medical service.—The fund has contracts with a number of physicians to take care of accident cases of certain plants. Salaries paid to such physicians range from \$500 to \$2,500, which may be increased or decreased, depending upon the number of accidents. The employee is allowed to select the physician in other cases, but must select competent ones. Nurses and surgical supplies in establishment hospitals are not paid for by the fund, but credit on the rate is allowed for surgical kits. Medical fees are based upon county medical fee schedules.

ACTUARIAL AND ACCOUNTING DEPARTMENT.

Classifications and rates.—The fund is authorized under the law to group the industries into classes according to the hazards and to fix rates thereon. The rates fixed by the fund have been 10 per cent lower than those charged by other insurance carriers.

Industrial risks are divided into two classes for rate making and inspection purposes: (1) Manufacturing, and (2) nonmanufacturing. As regards manufacturing risks the compensation rating and inspection bureau furnishes each insurance company with a card showing the classification and rate at which the risk should be written. This rate the carrier quotes to the insured. The fund also informs the insured as to the charges (as furnished by the rating bureau) and notifies him in what way these charges may be reduced. If recommendations are complied with, the rating bureau makes a reinspection and allows such deductions as are justified. The revised rates take effect as of the date the reinspection was requested.

As regards nonmanufacturing risks, the State fund uses the manual classification and quotes the manual rate for this classification. These rates are the same for all insurance carriers. Experi-

ence rating may be applied to such of these risks as have a \$500 premium. Credit for experience is determined by the rating bureau. The experience period is the five policy years preceding the current policy period and not less than two full policy years. In the case of coal risks at least \$50,000 in pay roll is required for the experience period.

Minimum premium.—The minimum premium of the fund is one-half of the stock companies' minimum, except in the case of coal mines and a few other classifications which are written at a 10 per cent reduction. The lowest minimum, however, is \$5.

Inspection.—The fund has separate inspection departments for coal and industrial risks. The former is located at Greensburg, with eight inspectors, and the latter at Harrisburg, with five inspectors.

Solicitation of business.—The fund has several branch offices, used for investigation of claims, information bureaus, and the writing of new or renewal risks. No special soliciting agents are employed. Inspectors make inquiries and solicit business while making inspection trips.

Premium income.—The premium income of the fund increased from \$770,094 in 1916, to \$3,186,668 in 1920.

Catastrophe fund and surplus.—Under the law the fund is required to set aside 5 per cent of its premiums for the creation of its surplus until such surplus shall amount to \$100,000, and thereafter such percentage, not exceeding 5 per cent, until the surplus shall be sufficient to cover the catastrophe hazard of all the subscribers to the fund and to guarantee the solvency of the fund. The total surplus as of December 31, 1920, was \$3,266,145 which included the \$500,000 originally appropriated for the administrative expenses of the fund, and the catastrophe surplus of \$509,340. The net surplus, therefore, including the catastrophe reserve was \$2,766,145.

Dividends.—The fund has declared an annual dividend of approximately 10 per cent on coal mining and 15 per cent on industrial risks. The total dividends declared as of December 31, 1920, amounted to \$389,537.

Reinsurance.—The fund has reinsured against unusual catastrophe losses in the amount of \$50,000 to \$250,000.

Administrative expenses.—The administrative expenses of the fund were originally paid from a \$300,000 fund appropriated by the legislature at the time that the fund was created in 1915. An additional \$200,000 was appropriated in 1917. However, since July 1, 1919, the administrative expenses of the fund have been paid out of the premiums.

Liability of the State.—The State of Pennsylvania is not liable beyond the amount of the fund.

ACCIDENT PREVENTION AND INSPECTION.

Inspections of all industrial risks subject to schedule rating are made through the Pennsylvania Compensation Rating and Inspection Bureau. This bureau is a central rating medium and all compensation insurance carriers are members of it. In addition the fund has an inspection force of its own consisting of eight mine inspectors and five industrial inspectors.

UTAH STATE FUND.

The Utah State Insurance Fund is administered by the industrial commission but is under the immediate supervision of a manager appointed by the commission with the consent of the governor. The commission also appoints the employees of the fund, some of whom are in the employ of both the fund and the commission.

The administrative expenses of the fund are paid out of the premiums, except that the legislature originally appropriated \$40,000 to carry on the work of the fund. This amount is still carried by the fund as a liability.

The premium income of the fund increased from \$188,222 in 1918, to \$209,010 in 1920. During the first two years the fund declared dividends to the amount of \$32,814.89. On July 1, 1919, the commission changed its policy by decreasing its rates, as a result of which no dividends have been declared since 1919. The total surplus of the fund, including the catastrophe reserve as of June 30, 1920, was \$134,406.79.

The fund adjudicates its compensation claims, which are subject to the approval of the industrial commission. In case of dispute claimant or the fund through its insured employer may apply to the industrial commission for a hearing. Appeal may be had from the commission's decision to the courts.

ACCIDENT REPORTING AND CLAIMS.

Reports of the accident are received from the employer, the doctor, and the injured workman. Upon receipt of the first report the missing reports are requested. The index, filing, and follow-up systems of the fund are the same as those used by the industrial commission (see pp. 190, 191).

Payments are made weekly, biweekly, or monthly, depending upon the wishes of the claimant. If the injury is particularly severe a check is sent before the claim is received. Checks are usually sent to the claimant, but in certain cases they are sent to the employer at the latter's request, especially when the employer pays full wages during disability. The fund pays compensation during disability regardless of whether the employer pays full wages. Checks are signed by the fund manager and two commissioners, and are drawn upon the State treasurer, who is custodian of the fund. The treasurer is furnished a list of the vouchers drawn.

The fund has a part-time medical adviser who visits the office every other day and passes upon claims and medical bills and examines claimants as to permanent partial disability. Claims which are not regular or require additional information are investigated by the fund's adjuster.

Widows are required to notify the fund every six months as to whether there has been any change in dependency.

ACTUARIAL AND ACCOUNTING DEPARTMENT.

Classification and rates.—The industrial commission is authorized under the law not only to determine the classifications and rates for the fund but also to approve the rates for all insurance carriers.

Up to July 1, 1919, the fund rates were the same as those for stock companies, which were computed by the National Workmen's Com-

pensation Service Bureau and approved by the commission. The multiplier adopted was 2.49 plus 0.01. The rates for the fund were found to be too high—they developed too large a surplus—and after July 1, 1919, they were reduced by 20 per cent.

The fund divided premiums as follows: 65 per cent loss ratio and 35 per cent expense ratio. The 35 per cent expense loading was composed of the following items: Expense, 10 per cent; statutory surplus, 10 per cent; and for additional surplus returned to policyholders at the end of the first and second years, 15 per cent. In the new rates the 15 per cent dividend surplus was eliminated and the catastrophe reserve (statutory surplus) was reduced from 10 to 5 per cent. The present rates, therefore, do not anticipate creating a dividend surplus.

The State is required to insure in the fund and pays its premiums at the end of six-month periods according to manual classification. Municipalities are not required to insure. If they do they are treated the same as private employers.

Merit rating.—Prior to July 1, 1919, the fund had in effect the schedule rating plan on industrial risks promulgated by the National Bureau from the Denver branch office. The fund inspected the risks and transmitted results to Denver for rating. Since 1919 it has no merit rating except on coal mines, where the Associated Companies' rating system is in operation.

Policies.—Insurance policies cover all employees and all liability of employer arising out of damage suits up to \$5,000 in fatal cases. Under the Utah constitution dependents can not be deprived of the right to sue for unlimited damages. Both insurer and employer are liable for compensation. All insurers must accept whatever risk is offered. Employers who refuse to safeguard their plants are subject to penalty and shutdown of plant, though no such action has as yet been taken by the commission.

Pay roll, premiums, and losses.—Insurance policies are written for six-month periods. The fund requires 30 days' notification in case of cancellation. Two methods of paying premiums have been adopted: (1) Six months' pay roll is estimated and premiums on this pay roll are paid in advance; adjustment is made at the end of the period and applied on the premiums for the subsequent six months, the actual pay roll of the first six-month period being used as the estimate for the subsequent period. (2) Premiums of two or three months' pay roll are deposited; thereafter a monthly report of the pay roll is made, accompanied by premiums, the deposit premium acting as a permanent premium deposit. About 30 employers, all of whom are large employers, operate on a monthly basis.

A pay-roll form is sent to the employer between the 15th and the 1st of the month prior to the end of the adjustment period upon which the employer makes a report of his actual pay roll. The fund then makes an adjustment, and sends the employer a statement covering the adjustment and the premium of the subsequent pay roll. Pay-roll auditing is limited to large employers and suspicious cases. For employers furnishing their own medical service a reduction of from 10 to 17½ per cent is allowed on the premium rate. The minimum premium is \$6 a year or \$3 a pay-roll period.

The uncollected premium during the three years' operation of the fund amounted to \$2,826.44. The fund experienced two coal-mine failures, whose unpaid premium amounted to \$2,400. The amount of premiums overdue more than 90 days, as of May 1, 1920, was \$825. The total premium income for the year 1920 amounted to \$209,010.

Premium register.—Premium amounts (totals) are posted from the policy file showing classes to the premium register, which shows firm and amount. From the premium register they are posted to firm ledger cards. Receipts are posted to cashbook and thence to individual ledger cards. From pay rolls they are posted to combined class and firm ledger.

Disbursements.—Disbursements are posted in the disbursement register from vouchers, and from vouchers to combined class and firm ledger. No pay-roll record is kept; consequently, pure premiums are not available. The list of disbursements is made in triplicate—one for the State treasurer, one for the industrial commission, and one to be retained by the fund.

Reserves.—The claim reserves of the fund are not computed on the case system but are based upon the premiums written. During the first two years 65 per cent of the premiums were set aside as a claim reserve. In 1919 this was increased to 85 per cent inasmuch as the fund rates were reduced by 20 per cent.

Dividends.—During the first two years the fund declared 3 dividends of 15 per cent each on general classes and 5 per cent on coal mines, one at the end of the first year and one at the end of the following two six-month periods. The total amount of dividends declared amounted to \$32,814.89. Since July 1, 1919, no dividends have been declared, because these dividends were taken out of the excess-expense loading; after 1919 the rates were reduced by 20 per cent, and consequently in lieu of dividends the insured receive lower rates. Dividends were applied to all risks regardless of individual experience. These dividends were not directly remitted but were applied on future premiums. If a firm withdraws it can not receive dividends; the commission therefore reduced the rates.

Catastrophe fund and surplus.—Ten per cent of the annual premiums are set aside for the creation of a surplus until such fund shall amount to \$100,000, and thereafter 5 per cent until in the judgment of the commission the surplus shall be sufficiently large to cover the catastrophe hazard and all other unanticipated losses. The total surplus of the fund, including the catastrophe reserve surplus, as of June 30, 1920, amounted to \$134,406.79.

Reinsurance.—The fund is authorized by the law to reinsure its catastrophe hazards, but has not done so because of the high rates charged.

Administrative expenses.—The administrative expenses of the fund are paid out of the premiums, except that the legislature originally appropriated \$40,000 to carry on the work of the fund. This amount is still carried by the fund as a liability.

Liability of the State.—The commission shall administer the fund without liability on the part of the State beyond the amount of the fund.

Solicitation of business.—The fund solicits new business through correspondence and personal visits of the manager.

ACCIDENT STATISTICS.

The fund has compiled and published no accident statistics apart from those published by the industrial commission.

ACCIDENT PREVENTION AND INSPECTION.

The fund performs no accident-prevention work, this being a function of the industrial commission.

INDUSTRIAL COMMISSIONS.**CALIFORNIA INDUSTRIAL ACCIDENT COMMISSION.³⁹**

The California workmen's compensation law is compulsory both as to compensation and insurance. All employments except agriculture and domestic service are covered by the act. All employers must insure with the State fund or with private casualty companies or provide self-insurance. The compensation act is administered by an industrial accident commission of three members, who are appointed by the governor for a term of four years. The commission is authorized to appoint its own officers and employees and to fix their salaries, subject to the civil-service rules. The expenses of the commission are paid out of the State treasury from funds regularly appropriated for the commission. However, in 1919 an amendment to the compensation act provided for the creation of a rehabilitation fund, upon which the commission may draw to promote rehabilitation and accident-prevention work. This fund is created by requiring employers to contribute \$350 for each fatal accident in which there are no persons entitled to compensation.⁴⁰ In addition to administering the compensation provisions and the rehabilitation work the commission has charge of the enforcement of the State safety laws and supervises the State insurance fund. The State fund is under the immediate administration of a manager appointed by the commission. One commissioner has immediate supervision over compensation matters, one over safety matters, and the third has charge of the branch office at Los Angeles. In disputed compensation cases hearings are held before the commission's referees, who digest the evidence and render a decision, which is reviewed by the commission. Appeal may be had from the decision of the commission to the court upon questions of law.

ACCIDENT REPORTS AND BUREAU OF INFORMATION.

All employers in the State are required to report all industrial injuries. In case the employer is insured, the accident report may be forwarded by the insurance carrier. In addition, the attending physician's report is required and the insurance company or self-insured employer is required to make a supplemental or final report, stating when the injured workman returned to work, the amount of compensation, medical benefits, etc. The report of the attending physician, rather than the first report of the employer or insurer, is used as the basic report for administration purposes.

³⁹ The California Industrial Accident Commission was combined with several other labor-law enforcing agencies in 1921.

⁴⁰ This law was declared unconstitutional by the Supreme Court of California, January 27, 1922.

All reports first come to the bureau of information and are divided into four groups (death, permanent disability, serious, and minor). The physician's reports are immediately transmitted to the State fund for the purpose of ascertaining whether any of the employers are insured in the fund. The fund retains the reports of its own assured; other reports are returned to the bureau of information.

The reports as to death, permanent disability, and serious injury are indexed, a separate index being kept for each type of injury. Those accidents which are of interest to the safety department for accident prevention purposes are transmitted to that department, then returned to the bureau of information, and finally transmitted to the statistical department for further action. All serious permanent disability accident reports are transmitted to the rehabilitation department, and then returned, after which they are transmitted to the statistical department for further action. Those accident reports which show that the workman's family or dependents may need assistance are transmitted to the welfare department for consideration, then returned to the information bureau, and then sent to the statistical department.

The initial examination of accident reports and the follow-up work every six months is done by the statistical department as hereinafter described.

Death.—All fatal accidents, as already noted, are indexed and filed in alphabetical order. This index card shows the names of the employer, the employee, and the insurance carrier, the date of the injury and death, information as to dependency, and when the case was sent to the legal department. On receipt of a fatal-accident report, the commission sends a form letter to the employer requesting the names and addresses of dependents. A form letter is also sent to the dependents informing them of their compensation rights and stating what they must do. A synopsis of the law is also sent them. A blank form is also sent to the dependents asking for the necessary data upon which the death benefit payments may be based. Nonresident alien dependents receive the full amount of compensation benefits but dependency must be proved.

Permanent disability.—The permanent disability cases also are indexed in a separate file and filed alphabetically by name of employee. This card contains the names of the employee, employer, and insurance carrier, the date and nature of injury, the age and wage, and also the date the report was received and when the employee was notified. When the permanent disability accident report is received the employee is sent a synopsis of the law and also a memorandum defining what a permanent disability is and what the employee must do. An application for a permanent disability rating is sent the employee when, in the opinion of the commission, the disability has been reduced as far as possible. A surgeon's special report blank is also sent to the employee, which the attending surgeon is required to fill out. The rating is done by the permanent disability rating department. The secretary also has an alphabetical card index of all rated permanent disability cases. Applications for permanent disability ratings and surgeons' reports are filed in the permanent disability rating department.

Serious injuries.—A card index is also kept of serious injuries (not permanent disabilities), filed alphabetically by name of employee. Upon receipt of the accident report the injured employee, as in the case of permanent disability accidents, is sent a synopsis of the law and also a form letter stating in a general way what his rights are and what action to take if the injury later results in a permanent disability. No further report from the workman is required in these cases unless or until the insurance carrier denies liability, refuses further necessary medical treatment or disability payments, or unless the injury results in some permanent partial disability.

Minor accidents.—No card index of the minor accidents is kept. These reports are immediately transmitted to the statistical department, unless the nature of the accident requires attention by the safety department.

Receipts and reports not required.—The following reports are not required by the commission: Supplemental reports of insurance carriers; final physicians' reports; receipts from workmen for payments made by employers or insurance companies. No follow-up work is done in ordinary cases except that a request for a final report of the accident is sent every six months by the statistical department. The commission does not know when payments are made or whether they have actually been made.

STATISTICAL DEPARTMENT.

All reports received by the statistical department come directly through the bureau of information. State-fund accident reports, however, are transmitted directly to the fund, and the commission therefore does not keep a record of or tabulate these reports. Instead, the State fund furnishes the statistical department with a punched card similar to those made by the commission for all other accidents, and these cards are tabulated.

All accident reports (employer's, insurer's, and doctor's) when first received by the statistical department from the bureau of information are filed in large groups by name of employer. At the end of each quarter these accident reports are arranged in alphabetical order, assembled, examined, and compared. They are then divided into three groups—closed, open, and incomplete files. A closed case is one in which the workman has returned to work and the amount of compensation and medical benefits has been reported. A master report, usually from the employer's report, is then made out. This report combines all the data on the three reports. The reports are then numbered, but for statistical identification only, after which the reports are ready for punching and tabulation. The discarded reports, that is, those remaining when the master report is made out, are arranged in alphabetical order in convenient sized packages and filed away.

The open cases and the incomplete reports are filed separately in alphabetical order. When the supplemental or final reports are received the case is extracted from the open file and placed with the closed cases; similar action is taken as regards the incomplete file. Every six months the files are examined and missing or final reports are requested. Special report blanks are used for fatal and permanent partial disability cases. In temporary disability cases a list is

made for each carrier, and only the period of disability, medical cost, and amount of compensation are requested.

The accident statistics are kept by year of occurrence. Separate cards are punched for temporary, permanent, fatal, and dependency cases. Formerly separate statistical tables were made for fatal and permanent and temporary disability accidents, but in 1919 these accidents were combined in a single table.

All of the above reports are merely for statistical purposes and are not used by the claim or compensation department described below. In controversial cases an application is made by the claimant setting forth the facts. A synopsis of the case is then transmitted by the compensation department to the statistical department, which is noted on the accident report; similarly, the compensation department notifies the statistical department of any award made by the commission. If the cards for any of these cases have already been punched they are extracted and a new card in conformity with the award substituted.

Insurance company's reports are classified as to manual number by the insuring company. Self-insurers are classified by the statistical department.

COMPENSATION DEPARTMENT—HEARINGS.

The compensation department of the California commission has to do only with contested cases.

In cases of dispute the applicant makes the claim to this department. These cases are numbered and indexed. Hearings are set after 10 and before 30 days after the filing of the application. The respondent is notified and must file an answer with the commission and also with the applicant. The applicant may determine what witnesses and evidence are necessary from respondent's answer.

The case is then heard before a referee and testimony taken. Hearings are held at places most convenient to the injured workman, most of them being held at San Francisco or Los Angeles. The commission has several traveling referees. Attorneys are present in about one-third of the cases. The injured workman must pay all expenses incurred, including those of witnesses, unless suit is unreasonably defended.

The referee prepares a memorandum on the case containing his decision. If the case is heard by a traveling referee who can not consult the commission, a decision writer reads the evidence and writes an opinion. The case is then taken up with one of the commissioners, after which another commissioner reviews the case. The first commissioner marks the case "plain," "fairly plain," or "in doubt," and the second commissioner governs himself accordingly. All referees' reports are sent to the San Francisco office. The third commissioner is stationed at Los Angeles, coming to San Francisco once a week. This commissioner usually participates only in those cases in which the other two commissioners disagree.

The State fund has a much smaller percentage of disputed cases than other insurers. The fund does not fight claims as do insurance companies. It is the policy of the manager of the fund not to appeal from the commission's decision to the court, although this policy does not affect the right of appeal of the claimant in State-fund cases.

PERMANENT DISABILITY RATING DEPARTMENT.

The California system of compensating permanent disabilities differs from those of all other States and Provinces. The compensation law authorizes the commission to establish a schedule of permanent disabilities in which the amount of compensation shall be based upon (1) the nature of the physical injury, (2) the occupation, and (3) the age. In accordance with this authorization the commission has issued an elaborate schedule in conformity with which all permanent disability injuries are rated.

The permanent disability rating department of the commission receives the workman's application for a permanent disability rating and a special report of the surgeon setting forth the facts. These reports are examined by the commission's medical advisers. Discrepancies between the workman's and attending physician's reports are investigated. All permanent disability cases near San Francisco or Los Angeles are requested to come to the office for examination by a medical director of the commission, after which they are rated for permanent partial disability. Ratings are changed in accordance with change in condition. Ratings are made on functional loss primarily. The percentage of loss of function is based upon the degree of immobility of the member, stated if possible in amount of flexion and extension. Then the age and occupation as shown by the schedule are applied. The commission has a special schedule for eye injuries.

In permanent disability cases in distant portions of the State special cards are sent to the workman requesting specific data as to nature of injury. The exact disability of the injured member as reported by the attending surgeon is shown on a diagram. If the workman's statement agrees with the attending physician's report, the case is given a permanent disability rating; if not it may be referred to a medical referee, who makes an examination and renders his report.

WELFARE DEPARTMENT.

The purpose of the welfare department is to study the economic status of dependents of workers killed in industry with a view to determining their needs and to what extent the present death benefits fail to meet these needs. The commission hopes to amend the compensation scale to provide benefits which will more adequately meet the needs of the surviving dependents. It also hopes to introduce a plan for the reeducation and retraining of dependent widows and children similar to that provided for the rehabilitation of the permanently disabled.

The commission investigated nearly 700 fatal cases and ascertained the condition of dependents subsequent to the accident. The work was performed in cooperation with the board of control. Four investigators were furnished by the latter, but were paid by the industrial commission. The person in charge of the welfare department is under the supervision of the commission. She devotes one-half of her time to the commission and one-half to the board of control.

All fatal accident reports, awards, and synopses of all claims are filed with the welfare department. The record of the fatal accidents

is kept by name of deceased, and by county. When the necessary data have been recorded in the files of the department the accident reports are returned to the bureau of information.

MEDICAL DEPARTMENT.

The medical department consists of four medical advisers, two of whom devote only a part of their time to the work of the commission. Three of the medical advisers are in the San Francisco office and one in Los Angeles. These medical advisers examine claimants, select the impartial examining physicians, and pass upon the reasonableness of medical fees. The commission also appoints resident medical referees to whom are referred for examination claimants who are unable to come to the office of the commission. Employers have the right of selecting the physician, except that in case the physician rendering the service is incompetent the employee has the right to choose a physician from a panel nominated by the employer.

REHABILITATION DEPARTMENT.

The California compensation act provides that in case of a fatal injury in which there are no dependents entitled to compensation the employer must pay, in addition to any other payments, the sum of \$350. The moneys so paid in shall constitute an industrial rehabilitation fund upon which the commission may draw for the promotion of vocational reeducation and rehabilitation of persons disabled in industry. Any surplus not needed for rehabilitation work is placed to the credit of the accident prevention fund. The constitutionality of this provision is being tested in the courts, and until the constitutional question is decided the commission is handicapped in the prosecution of its rehabilitation program.^a

The commission, however, has created a rehabilitation department, in immediate charge of which is a young man who has lost both his hands. All permanent partial disability accidents are referred to him and record is made of each case. He regularly visits the hospitals near San Francisco and discusses with the patients the problems connected with their retraining.

SELF-INSURANCE.

All self-insurers are required to deposit security. The minimum amount required is \$20,000. A self-insurer must also file a financial statement showing his assets, liabilities, etc. This statement need not be renewed yearly.

The commission has no supervision over insurance and does not know until an accident occurs whether or not the employer is insured. Quite a large number of cases are not insured. The exact number is not known. The only consequence provided in the law for noninsurance is that the injured workman retains his right to sue for damages. A number of workmen have been deprived of their compensation because of the noninsurance of the employers.

In pension cases self-insurers must deposit the present worth of the compensation payment, discounted at 3 per cent, with the State fund, which thereafter becomes responsible for payment. There are at present 221 self-insurers with 204,802 employees. The deposited

^a Declared unconstitutional by Supreme Court of California, Jan. 27, 1922. [Ed.]

security is \$4,275,000. In addition to the self-insurers there are 215 maritime employers insured in a maritime insurance company not authorized to do business in California. No self-insurers have failed as yet.

SAFETY DEPARTMENT.

In California the enforcement of the safety laws is a function of the industrial accident commission. In fact it is one of the few States in which accident prevention work is regarded by the commission as of equal importance with the administration of the compensation provisions. The prosecution of the accident prevention work is under the immediate direction of a superintendent of safety supervised by one member of the commission, who devotes practically all of his time to this work. The personnel of the safety department consists of 46 inspectors and other employees. The department is divided into several branches (boiler, electrical, elevator, mining, shipbuilding, construction, and general), each division being in charge of a chief inspector.

COLORADO INDUSTRIAL COMMISSION.

The Colorado compensation act is elective as to the compensation provisions and compulsory as to insurance. All employments except agriculture, domestic service, and employers having regularly less than four employees are covered by the act. All electing employers must insure with the State insurance fund or with private casualty companies or provide self-insurance. The act is administered by an industrial commission of three members appointed by the governor for a term of six years. The commission is authorized to appoint its officers and employees, subject to the civil-service rules. The administrative expenses of the commission are paid out of the State treasury from moneys regularly appropriated.

In addition to administering the compensation provisions the commission has supervision over the State fund and administers the minimum wage law. The State fund is in the immediate charge of a manager appointed by the commission. The commission is also charged, under the act, with the enforcement of the child labor, factory inspection, and safety acts, but these functions are performed by the factory and mining departments.

Compensable accident cases are settled by voluntary agreements which must be approved by the commission. In disputed cases either party may file an application for a hearing before the commission's referee. Appeal may be had from the referee's decision to the commission and from the decision of the commission to the courts.

ACCIDENT REPORTING AND CLAIMS.

Accident reporting.—All accidents are required to be reported by all employers under the compensation act. The present waiting period is 10 days.

The employers' first accident reports are sometimes transmitted by the insurance carriers or made out by insurance carriers from the employers' reports transmitted to them. In the case of mining accidents two copies are received, one of which is transmitted to the mining department. The attending physicians' first reports are re-

quired in compensable accident cases, though not always received. A physician's supplementary report is required in special cases. Employers' supplementary reports are countersigned by the workman when he returns to work. In compensable accident cases agreements as to compensation, etc., are made between employer or insurer and injured workman. Receipts for compensation payments, including final receipt, are required by the commission. If there is no agreement on file with the commission the workman is requested to make an application for a hearing.

Claim procedure.—When the employer's first report is received it is given an accident number. The report is acknowledged by card and the workman is sent a card stating briefly what he must do and to what compensation he is entitled. The report is then indexed for card index (showing names of the employee and employer, the accident number, and the date of accident); these cards are filed in alphabetical order by name of employee. An employer's card is also made out (showing the accident and claim number, the employer's and employee's names, the date when injured, and the date the employee returned to work). These cards are filed in alphabetical order by employer's name. Each card contains a record of all the accidents of an employer. A compensation card is also made out showing the history of the accident and the payments made. These cards are filed in numerical order by accident number. The accident reports themselves are kept in a file in numerical order.

In all compensable accidents agreements between employer or insurer and workman as to compensation, etc., are required. As these agreements are received they are given a claim number which, together with other data, is transferred to the compensation card. The accident report is withdrawn from the accident file (a tracer showing the claim number being left) and a new claim file is made. The agreements are filed in numerical order by claim number. As receipts for compensation are received they are noted on the back of compensation card, together with dates of receipt. No medical payments are recorded. A new final receipt form, however, calls for detailed medical expenditures. When the final receipt and final employer's report are received and approved by the claim department the case is closed. The compensation card is withdrawn and put in the closed file. Compensation cards are made out for all accidents. If the first or supplementary reports show that the case is not compensable and that the workman has returned to work, the card is withdrawn and placed in the closed accident card file. The compensation card index is examined periodically and missing agreements or supplementary reports requested. If no response to these requests is received the workman is requested to file a claim.

The voluntary agreements are examined by the commission's claim agent, who compares the agreement with the accident report and clears up inconsistencies. Acknowledgment of agreement is sent to both parties.

Hearings.—In case of dispute the workman or insurer files an application for hearing before the commission's referee, whose decision is final unless appealed to the commission. Either party may also appeal from the commission to the courts. The referee travels about the State holding hearings which have been arranged for in advance.

Permanent partial disability.—Examination of permanent disabilities to determine the degree of disability is made either by the commission's special doctors or by the commission's referee. Special reports may be required. The commission has no regular medical adviser or medical department, but refers cases upon which it desires expert medical opinion to special physicians for examination.

STATISTICAL DEPARTMENT.

Only compensable accidents are tabulated. All accidents are kept by year of occurrence. The compensation amounts, as tabulated, cover the compensation paid and awarded on such accidents. Amounts outstanding are not included. The data are tabulated from compensation cards when first made out and later additional data are added, when the card is complete and the case closed. The accident report itself is not used in statistical tabulation. There is no tabulation of accident by industry, cause, or severity.

SELF-INSURANCE.

Self-insured employers must furnish the commission with an annual statement setting forth their assets, liabilities, etc. A number of self-insurers are required to give bonds ranging in amount from \$10,000 to \$100,000, and in case the employer's business is subject to a catastrophe hazard the commission requires the employer to reinsure its risk for losses exceeding \$25,000 up to \$150,000. In case of claim awards in excess of \$1,000 the commission also requires the employer to set up reserves which are subject to the exclusive control of the commission. There are 46 employers who carry their own risk. No self-insured employer has failed or gone into receivership since the act went into effect.

SAFETY WORK.

The industrial commission does not engage in accident prevention work. Under the creative act the commission was given jurisdiction over all places of employment for the purpose of enforcing the safety statutes, but thus far the accident prevention work has been carried on by the factory inspection and mining departments, who were charged with this work before the creation of the industrial commission.

IDAHO INDUSTRIAL ACCIDENT BOARD.

The Idaho compensation law is compulsory, both as to compensation and insurance. All industries are covered except agriculture and domestic service. All employers must insure with the State insurance fund or with private casualty companies or provide self-insurance. The law is administered by an industrial accident board of three members appointed by the governor for a term of six years. The board is authorized to appoint its employees, whose tenure of office is subject to the pleasure of the board. The board has no authority over the State fund, which is under the jurisdiction of the department of commerce and industry. The administrative expenses of the board are paid out of the State treasury from moneys regularly appropriated. In each case of fatal injury in which there are no dependents entitled to compensation, \$1,000 is paid by the employer into the general revenue fund of the State, which is used to defray the administration expenses of the board and other departments of the State.

In addition to administering the compensation provisions the board is also authorized to make and enforce safety rules, but thus far it has not undertaken this function.

In disputed compensation cases the matter goes before a committee of arbitration, of which a member of the board is chairman. Appeal may be had from the committee's decision to the full board and from the board's decision to the courts.

ACCIDENT REPORTING AND CLAIMS.

Only employers under the compensation act are required to report accidents, but all their accidents must be reported. The waiting period is one week. Employers are not required to make a first report of the accident.

The first notice of injury and preliminary application is made by the employee and countersigned by the employer, who merely states that the employee was employed by him. The employee's report, however, is usually made out by the employer. Upon receipt of this first report it is given an accident number and an "employee's accident record" card is made out. This card contains the name and address of the employee, the accident number, the date of the accident, the employer's name, and the nature of the accident. Cards are filed in alphabetical order by name of the employee. The accident is also recorded in a record of accidents book by accident number. This book contains the accident number, the date when the accident report was received, the name of the employee, the name of the employer, the date of the accident, the nature of the injury, and the date when the case was closed. The accident is also recorded in an employer's register, in which all employers are listed in alphabetical order and which contains the name of the employee and the date of the accident.

Upon receipt of the employee's first report the employee is sent a card informing him of his rights. The report is then put in a jacket and filed in numerical order, awaiting the attending physician's report and the employer's supplementary report. At the end of the disability the employer or insurer sends in a summary and award report which shows the time lost, the wages, the kind of disability, and the amount of compensation and medical benefits awarded. This completes the case, which is then submitted personally to the board for approval. The file is searched once a month and missing reports requested. A record of such requests is kept in a special follow-up index.

Physicians make three reports: (1) First report, (2) supplementary report in long continuing cases, and (3) final report which is accompanied by fee bill. A surgeon's special report is made for eye and ear injuries. All physicians' bills are passed upon by the board.

Receipts for compensation payments are required in all cases, though it is not possible always to secure such receipts from the employee. Payments are required weekly but may be made monthly upon agreement of parties. Monthly payments are the rule. One insurer in lieu of receipts sends in a statement that payment has been sent to the employee. Two files are kept, one containing the current and unadjusted cases and the other the closed cases, which include fatal and permanent partial disability cases for which awards have been made.

Hearings.—Disputed cases come before an arbitration committee of which a member of the board is chairman. An appeal may be had from the decision of the committee to the full board, and from the board to the courts. Hearings are held in the places best suited to the injured workman. Only 12 arbitration hearings, seven review cases by the board, and one appeal to the court have been had since the act went into effect. Most disputes are settled by correspondence. Insurance carriers usually accept the opinion of the board.

Medical service.—About one-half the employers under the compensation act are under the contract hospital system. Employees of such employers are charged \$1 a month for unlimited service in case of accident or sickness. The board has no medical department or medical adviser, but in disputed cases appoints impartial physicians to examine injured workers. The physician is usually selected by the employer. The board passes upon every medical bill whether or not disputed.

Permanent partial disabilities.—In permanent partial disability cases compensation is paid for temporary total disability in addition to the amounts provided in the statutory schedule. The degree of disability in cases involving loss of use of a member is determined by the board. In case of a second permanent injury compensation is paid upon the basis of the disability of the combined injuries.

STATISTICAL DEPARTMENT.

The board was just organizing its statistical department at the time the investigation was made. It is the aim of the board to organize its statistical work along the lines recommended by the committee on statistics of the International Association of Industrial Accident Boards and Commissions.

INSURANCE.

The compensation act is compulsory and every employer is required to secure compensation to his employees either by insuring in the State fund or by depositing security satisfactory to the board. Such security may consist of a surety bond or guaranty contract, which has been interpreted by the court to permit employers to insure their risk in private casualty companies.

Self-insurers must deposit either bonds or surety bond. The board also inquires as to the finances of the self-insurer, although it does not require the filing of a financial statement. If cash or Government bonds is deposited, \$15,000 plus 5 per cent of the pay roll is the amount required; if surety bonds, they must be unlimited. The amount of the bonds or security required is determined by the board. The minimum amount required is \$15,000 (formerly \$22,500), which is supposed to be the average cost of three fatal accidents. There are 21 self-insured employers in the State.

Employers who wish to insure in private casualty companies must furnish an unlimited surety bond, which is provided by the company which carries their insurance. The company then takes over the obligations of the employer. Each company must be approved by the board before it can do business, and must deposit a bond of \$25,000. Only four companies are writing business at present, two stock companies and two reciprocal exchanges, both of the latter consisting of lumber companies.

All bonds are deposited with the State insurance manager, though they must be approved by the accident board. The compensation act is compulsory and every employer is required to insure. The enforcement of this provision is under the State fund. Hundreds of employers are not insured. The present manager has made no prosecutions nor has he attempted to enforce this provision. The manager at the beginning of the operation of the law tried to carry out this provision and collected a number of fines. According to the accident board the reason for nonenforcement is that prosecution would alienate the good will of such employers, and if compelled to insure that they would insure with the private companies and thereby handicap the fund.

SAFETY WORK.

The board has full authority to make and enforce safety rules, but as yet has not done so because of lack of funds. There is no factory inspection department in the State. Board members, however, do a little personal work while on hearing trips.

ILLINOIS INDUSTRIAL COMMISSION.

The Illinois compensation law is compulsory both as to compensation and insurance. Only enumerated hazardous employments are covered by the act. All employers must insure with private casualty companies or provide self-insurance. Illinois has no State fund. The act is administered by an industrial commission of five members appointed by the governor for a term of four years. The commission is authorized to appoint its own officers and employees, subject to the civil-service laws of the State. The administrative expenses of the commission are paid out of the State treasury from moneys regularly appropriated.

In addition to administering the compensation provisions the commission is charged with the administration of the conciliation and arbitration act. The commission performs no safety work, this being one of the functions of the department of labor.

Disputed compensation cases go to one of the commission's arbitrators for a hearing. Appeal may be had from the decision of the arbitrator to the commission and from the commission to the courts.

ACCIDENT REPORTING AND CLAIMS.

Only compensable accidents (those lasting over seven days) are required by the commission to be reported, and only employers under the compensation act are required to report. All accident reports of insured employers are filed by their insurance carriers. No reports of accidents are received from insured employers or from physicians.

Each employer is given a number. A card index is made of all employers, each card having the name and number of the employer, and filed alphabetically. When an accident report is received a filing clerk assigns the employer a number and the report is then filed under the employer's number by name of employee in alphabetical order. There are two files for each employer, one for the open cases and one for the closed cases.

The compensation receipts (partial and final) are filed with the accident report. Every three months the cases are examined and

requests sent for missing receipts. Compensation payments are made weekly or semimonthly. A receipt for each payment is required. These receipts are transmitted monthly to the commission.

The commission has no checking-up system to see whether the accident report and compensation receipts are correct except by comparing the original report with the final report. Payments in disputed cases are stopped at the pleasure of the employer or insurer. Further action must then be taken by the employee if he is not satisfied.

Hearings.—In case of dispute the employee may file a claim petition and the case will be set for a hearing before the commission's arbitrator at or near the place of the accident. Appeal may be had from the decision of the arbitrator to the commission, one member hearing the case, and from the decision of the commission to the courts.

Permanent partial disabilities.—In case of permanent partial disabilities compensation is paid for temporary total disability during the healing period in addition to the statutory amounts in the schedule. The degree of disability in case of loss of use of a member is determined by the commission, based upon the opinion of the medical adviser of the commission.

Medical department.—The commission has a medical adviser who examines claimants and advises the commission with respect to the medical questions arising under the administration of the act.

SELF-INSURANCE.

Self-insured employers are required to file a financial statement showing assets, liabilities, etc. In a number of cases the employer must also deposit security. Coal mines are required to set aside five per cent of their premiums for a catastrophe reserve. There were 558 self-insurers in 1918.

STATISTICAL DEPARTMENT.

Accident statistics are kept by calendar year and include all accidents occurring within the year. The accident data are punched on Hollerith cards when the case is closed.

In cases which are still open in May of the following year the length of the disability is estimated.

SAFETY WORK.

The commission performs no safety work, this being one of the functions of the department of labor.

INDIANA INDUSTRIAL BOARD.

The Indiana compensation act is compulsory as to insurance and elective as to compensation except in the case of mining, which is compulsory. All industries except agriculture and domestic service are covered by the act. All employers must insure with private casualty companies or provide self-insurance. There is no State fund. The act is administered by an industrial board of five members appointed by the governor for a term of four years. The board appoints its employees subject to the approval of the governor. The expenses of the board are paid out of the State treasury from moneys regularly appropriated.

In addition to administering the compensation act the board is also charged with the enforcement of all the labor laws, including woman and child labor, factory inspection, and accident prevention work.

Compensable accident cases are settled in the first instance through the medium of voluntary agreements signed by the injured workman and the employer or insurer. In case of dispute either party may apply for a hearing before a member of the board or before the full board. Appeal may be had from the decision of the board to the courts.

ACCIDENT REPORTING AND CLAIMS.

Accident reporting.—All employers are required to report all accidents resulting in disability of one day or more, but in practice only employers subject to the compensation act report accidents. The statutory waiting period is one week.

The following reports are required: (1) Employer's first report, to be sent in by the insurance company (the employer's original report is supposed to be sent in, but some of these reports are made out by the insurance company, and some are not signed, or the signature is typed); (2) physician's first report (these reports were on file in only about 10 per cent of the cases; many of the physicians' reports were duplicates, with typewritten signatures, made out and sent in by the insurance company; (3) employer's final report sent in by insurance company (only about 5 per cent of these were on file); (4) agreement between employer or insurer and workman; (5) receipt for compensation signed by workman; (6) final receipt.

When an accident report is received it is numbered and indexed in numerical order on cards (25 names on a card) which contain the date of the accident, the accident number, the employer's and employee's names and the claim number if it develops into a claim. The report is then transmitted to the statistical department and cards are punched. The accident report is also indexed by the name of the employer—there being a separate card for each employer, with all the accidents of each employer on his card. The accident report is then placed in a jacket and filed in numerical order, where it remains until the agreement is received, when it is withdrawn, the agreement attached, and sent to the chairman of the board for examination and approval. If not correct the chairman writes for information. Insurance companies sign agreements for their assured employers.

The agreement then goes to another statistical clerk, who punches another statistical card similar to the first except that in closed cases the amount of compensation is added.

The agreement is then filed in numerical order in a separate file and stays there until the case is closed, when it is put in the closed file. All cases are filed in numerical order. The board has no follow-up system of accident reports to see whether agreements have been received except in fatal cases and cases involving dismemberments.

There are three separate files: (1) Accident reports; (2) agreements; (3) claims (adjudicated cases). All are filed in numerical order. All files except claims are destroyed after two years. Some of the earlier claims were also destroyed.

Claims are indexed on cards by employee's name. A record is kept of accident reports which develop into claims. These are filed in

numerical order by accident number, and each card also shows the claim number.

When the agreement is approved a compensation card is made out by a statistical clerk. These cards are filed in alphabetical order by name of employee. As compensation receipts are received by the board they are posted on these cards. There is no follow-up of these receipts, although the bookkeeper goes over them every three months and copies off the amount of compensation paid during the period.

Permanent partial disability and fatal cases.—A separate record of permanent partial and fatal cases is kept. If no agreements are on file within three or four weeks a request for them is made. The physician's report also is requested. The board has no special follow-up system as regards temporary disabilities. The board relies upon the workman to make complaint if he is not receiving his compensation. The attending physician's report in permanent partial disability cases is ordinarily accepted by the board and an award is made from such report. If the injured workman lives near Indianapolis he is called in for examination by the board. The board has no medical department or medical adviser.

Hearings.—Compensable accident cases are settled in the first instance through the medium of voluntary agreements signed by the injured workman and the employer or insurer. In case of dispute either party may apply for a hearing before a member of the board or before the full board. In case the initial hearing is held by an individual member of the board an appeal may be had from his decision to the full board. About 20 per cent of the initial hearings come before the full board for review. Either party may appeal from the board's decision to the courts.

Children under 16.—When children under 16 years of age are injured, as shown by the accident report, the matter is referred to the department of women and children for investigation and attention.

STATISTICAL DEPARTMENT.

After the accident report is indexed it goes to the statistical clerk who punches on Hollerith cards such data as are then available. The amount of compensation is not punched and the time loss is punched only in those cases in which the first accident report shows that the workman had returned to work. Another clerk makes out the compensation card after the agreement is approved. She also punches another Hollerith card, taking off such data as is available at the time the agreement is approved. A large proportion of the agreements are closed cases when made. The compensation amounts and disability periods of these are punched, but in open cases these data are not recorded.

SELF-INSURANCE.

Self-insurers are required to furnish a financial statement showing assets, liabilities, etc. About 10 self-insurers have been required to file surety bonds with the board. The minimum bond required is \$5,000, and the maximum \$10,000. Most of these self-insurers are small employers having one or two employees. About 300 employers carry their own risk. They have about 10 per cent of the total number of accidents. No failures of self-insurers have as yet been reported.

RECIPROCALLS.

All reciprocal insurance exchanges are required to deposit \$50,000 in some depository approved by the board. They must also deposit as a trust fund the amount of the award in fatal and permanent partial disability cases. The withdrawal of the amount deposited is subject to the order of the board. The board may make an examination of the books of the reciprocals.

SAFETY WORK.

The industrial board, which is charged with the enforcement of all State labor laws, is composed of five departments as follows: Compensation, women and children, mines, boilers, and factories and workshops. The safety work of the board is performed by the mining, boiler, and factories and workshops departments.

MARYLAND INDUSTRIAL ACCIDENT COMMISSION.

The Maryland compensation law is compulsory both as to compensation and insurance. Only enumerated hazardous industries are covered by the act. All employers must insure with the State fund or with private casualty companies or provide self-insurance. The act is administered by an industrial accident commission of three members appointed by the governor for a term of six years. The commission appoints its own officers and employees, whose term of office is subject to the pleasure of the commission. The administrative expenses of the commission are paid by the insurance carriers and self-insured employers in the State in proportion to their several pay rolls, the total assessment, however, not to exceed \$60,000.

In addition to administering the compensation provisions the commission has supervision over the administration of the State fund. The fund is in the immediate charge of a manager appointed by the commission. The commission performs no safety work, this being a function of the board of labor and statistics.

Compensable accident cases are adjudicated on the basis of written reports from the employer, the attending physician, and the workman. In case of dispute application may be made to the commission for a hearing. Either party may appeal from the decision of the commission to the courts.

ACCIDENT REPORTING AND CLAIMS.

Accident reporting.—Only employers under the act report accidents, but all their accidents are required to be reported. The statutory waiting period is two weeks. The following reports are required: Employer's report, physician's report, and workman's claim. Each report is given a number and filed in the separate files in numerical order.

Employer's report.—An index card is made which is filed in alphabetical order by name of employee. This card contains the name of the workman, the date of the accident, the employer's name, and the number of the accident, which is assigned at the same time. The report itself is filed in numerical order by accident number, awaiting the workman's claim.

Physician's report.—An index card similar to the employer's index card, but of different color, is made out and filed in alphabetical

order by employee's name in the same index. The physician's report number is assigned to the card. The report itself is then filed in numerical order by physician's report number, awaiting the workman's claim.

Workman's claim.—When the workman's claim is received the index is searched to see if the employer's and physician's reports are in. An index card is then made out, which contains the name of the workman, the date of the accident, and the claim number. If the other reports have been received (employer's and physician's) they are withdrawn from the file and the claim number is attached to the employer's and physician's index cards and reports. A large proportion of the workmen's claims are made out in the office of the commission. There is no follow-up of the employer's or doctor's report. The commission assumes that a claim will be made by the workman if the accident is a compensable one.

The reports are then put in a jacket and given to the claim agent for examination. Two sets of cards are again made out: (1) Index cards in duplicate, showing the claim number, the date of the accident, and the employee's and employer's names. Of these cards one set is filed in numerical order by claim number and the other in alphabetical order by name of employee. (2) Docket card which shows subsequent action on claim. These docket cards are turned over to the docket clerk.

If the claim is O. K. a notice of the employee's claim is sent to the employer and the insurance company, giving a synopsis of the claim and stating that if no request for hearing is received the commission will grant an award on the basis of the claim. The claims are then filed in a day file and set six to nine days ahead. If no reply is received an award is made by the claim agent and approved by the commission. Four copies of these awards are made, one being sent to the employer or insurer, one to the claimant, one to the docket clerk, and one filed with the case. At the time the notice of the employee's claim is sent a request is also made for missing reports. Compensation payments are usually made weekly. Some insurance companies pay compensation before the award is actually made by the commission, although the State fund does not.

Docket clerk.—The original award goes to the docket clerk, who enters the data in a docket book. The awards are entered in numerical order. The docket cards mentioned above are also filed by the docket clerk in alphabetical order by name of employee. Awards are filed in numerical order. When final receipts are received the data thereon are entered in the docket book and on docket cards. The docket book is examined periodically and receipts requested in cases which are probably closed. Final receipts are filed with docket clerk.

Hearings.—The claim procedure of the Maryland commission approximates that in use in most of the exclusive State funds in that written claims are filed before the commission by the injured workmen. When a workman's claim is received a notice thereof is sent to the employer and insurance carrier, who, in case they dispute the claim, may file an application for a hearing before the commission. The commission may order the case heard by an arbitration committee. If the employer does not protest the workman's claim, the commission makes an award on the basis of this claim and the em-

ployer's and physician's reports of the accident. In case a hearing is demanded, an award is made after the hearing is held. Either party may appeal from the decision of the commission to the courts.

Permanent partial disability.—In permanent partial disability cases compensation is paid in accordance with the schedule provided in the act, this compensation being in lieu of all other payments. In cases involving partial loss of use of members the degree of disability is determined by the commission, being based on the recommendation of the commission's medical adviser. No compensation is paid for temporary total disability during the healing period.

Medical department.—The commission has a medical adviser who devotes only part of his time to the work of the commission. The medical adviser comes in daily to examine claimants, to estimate the probable disability of injuries, and to determine the degree of disability of permanent partial disability cases.

STATISTICAL DEPARTMENT.

After the award is made the claim jackets are filed in numerical order by claim number, but in the meantime they are turned over to the secretary of the commission who has charge of the compilation of statistics. Statistical data are first entered from the claim in a book, the items of which correspond to those on a Hollerith card. The data from the book are then punched onto cards. The length of disability is taken from the final settlement receipts.

SELF-INSURANCE.

The commission requires each self-insurer to deposit security, the minimum being \$5,000, and the maximum, \$30,000. A statement of assets and liabilities is furnished by self-insurers only when requested by the commission. There are about 120 self-insurers.

SAFETY WORK.

The commission performs no safety work, this being a function of the board of labor and statistics.

MASSACHUSETTS INDUSTRIAL ACCIDENT BOARD.

The Massachusetts compensation act is elective as to compensation and compulsory as to insurance. All industries except agriculture and domestic service are covered. All employers must secure their compensation liability by insuring with some private casualty company, no self-insurance being permitted, nor is there a State fund. The act is administered by an industrial accident board of six members appointed by the governor for a term of five years. The board is authorized to appoint a secretary. The appointment of other employees is subject to the civil service laws of the State. The administrative expenses of the board are paid out of the State treasury from moneys regularly appropriated.

In addition to administering the compensation provisions the board has supervision over the administration of the rehabilitation work. The board does not enforce the safety laws, this work being a function of the department of labor and industries.

The compensable accident cases are settled by voluntary agreements which must be approved by the board. In disputed cases either party may file an application for a hearing before a member of the board. Appeal may be had to the full board and from the board to the courts.

ACCIDENT REPORTING AND CLAIM PROCEDURE.

Accident reporting.—All employers are required to report all accidents. The statutory waiting period is 10 days. All accident reports and correspondence are received in the mailing division of the board. The reports as received are first separated into tabulatable and nontabulatable reports. The accidents are numbered consecutively. The tabulatable or "incomplete" reports received each day are numbered first, after which the nontabulatable or "complete" reports are numbered. The accident report is then checked for incomplete items and a blank form with such items checked is sent to the employer. The insurance companies send in a list of their assured accidents each week. This list is checked with the board's index cards.

The accident report is then indexed, two index cards being made. One card is filed in alphabetical order by name of employer, and one by name of employee. In fatal cases three cards are made, the additional copy being sent to the board's inspector for investigation. Each index card contains the number of the accident, the name of the insurance company, the names of the employer and employee, the date of the accident, and the date when indexed. The blank form of the employer's first report also contains a detachable supplemental report form. If the supplemental report has not been detached by the employer when transmitting the first report, it is detached by the board and sent back to the employer to be filled out when the injured employee returns to work.

The cards and accident reports are then sent to the filing department for filing. The follow-up work of the "incomplete" reports is performed by the statistical department. An advisory card is sent to each employee sustaining compensable injuries, that is, those in which the disability lasts over 10 days. Each insurance company sends in the list of its insured employers.

Filing department.—The filing of the index cards, accident reports, and agreements is in charge of a filing department. Separate files are kept for accident reports and agreements, each being filed in numerical order by number of report or agreement. The supplemental report is filed with the accident report unless it is an agreement or arbitration case, in which case it is filed with the agreement. When an agreement is received in the filing department, the corresponding reports are extracted from the files and the correspondence in regard thereto is attached to the reports and then sent to the agreement and arbitration department. Slips are placed in the report file and in the agreement file when a case goes to the agreement and arbitration department. A charge file is kept in the filing department, by means of which each report and case are charged when they leave the filing department.

Agreement and arbitration department.—Agreements, when received by the mailing division, go to the agreement department and

from there to the filing department where the accident reports are extracted from the files. The agreement is then numbered and report slips written which are substituted for the reports in the files. Agreements are then examined and compared with the accident report and with the supplemental report if in the files. If the agreement is all right it is approved by the board and a notice of approval sent to the insurance company; if it is not, inquiries are sent to the parties concerned for additional information. An agreement index card is made. This index card contains the name of the employee, the report number, the agreement number, the name of the insurer, the date of the accident, and the name of the employer. The agreement and card are sent to the filing division. Agreements are filed in numerical order; cards in alphabetical order by name of employee. When final settlement receipt is received, the file is withdrawn and compared with the receipt. Underpayments are noted and the insurance company written to. Overpayments are noted and if material, the insurance company is notified. If the supplemental report is not in when the agreement is received the agreement is filed; when the supplemental report is finally received through the follow-up system of the statistical department the agreement and reports are extracted from the filing department files and compared with the supplemental report. If the final settlement receipt is inaccurate the insurance company is written to, and the case is placed in the pending file for a period of 10 days, awaiting reply from the insurance company. If no reply is received at the end of 10 days another request is sent.

In case of eye, hand, foot, or other injuries possibly resulting in permanent partial or total disability, with additional specific compensation due therefor, a letter is sent to the attending physician, or in hospital cases first to the insurance company (to the hospital for record if that becomes necessary), requesting full information as to the nature and extent of the injury, submitting a diagram if helpful. These cases are put in the follow-up file (described above) awaiting reply.

Claims are filed, if no agreements are received, upon request of the board. Upon receipt of the claim it is acknowledged and a claim card made, filed in alphabetical order by name of employee. The action taken is recorded upon the card, the claim is filed with the case, and a letter is sent to the insurance company. If the case goes to arbitration, this fact is noted on the claim card.

The following special files are also kept: (1) Discontinuance application cases, filed in alphabetical order by name of employee; (2) unusual cases; (3) special-board cases, filed in alphabetical order by name of employee.

Investigations.—The board has a corps of inspectors engaged in investigating certain problems connected with the administration of the act, the matters investigated including the following: The rights of dependents and the cause and manner of the accident in fatal injury cases; the degree of partial dependency; cases where the facts are not reported or where they are in dispute; discontinuance cases, to ascertain whether the injured man is able to return to work or to perform a specific job; the desirability of granting lump-sum settlements; ages of minors; employer's failure to report accidents; com-

plaints of underpayments; employee's refusal to accept medical treatment offered; and disputes between attorneys and clients as regards the reasonableness of attorneys' fees. No physician's reports are received in ordinary cases.

Insurance companies must continue to pay compensation until ordered by the board to discontinue payment. Final settlement receipts are no longer approved by board because of the possibility of the court ruling that such receipt is final and irrevocable and releases the insurance company from further liability.

Hearings.—If the parties fail to agree on compensation a request for a hearing is made to the board. However, the questions at issue are settled by informal conference if possible. If not, a date is set for a hearing before one member of the board. Hearings are held in the city in which the accident occurred, notices being sent to the parties concerned. In some of the larger cities definite day or days are set aside each week for hearings; otherwise hearings are held as required. Upon completion of hearings a decision is written by the member of the board and sent to the parties. Either party, if not satisfied, may appeal to the full board for review. Thursday of each week is full-board day. Parties may appeal from the decision of the board to the supreme judicial court, by presenting the certified record in the superior court, obtaining a decree of court and claiming appeal therefrom.

Permanent partial disability.—The Massachusetts system of compensating partial disabilities differs from that of most of the other States. Compensation is paid for temporary total disability during the healing period and thereafter for partial disability based upon the actual wage loss if the injury has resulted in a reduction in wages. In addition, compensation is paid for certain definite periods enumerated in the schedule. These schedule periods are much smaller (50 weeks for all major disabilities and 12 weeks for all minor disabilities) than those provided for in other States. No compensation is granted for partial loss of function unless it results in a reduction in earnings, as stated above.

Medical department.—The board has a medical department consisting of a medical adviser and several assistants. It is the duty of the medical adviser to examine claimants; to be a witness or give counsel at hearings; to make medical reports on cases before the board; to make arrangements for specialists' examinations; to select impartial physicians for examination of claimants; and to pass upon the reasonableness of medical and hospital fees.

STATISTICAL DEPARTMENT.

The statistical department receives only tabulatable accidents. All the complete reports, together with the supplemental reports, are taken from the filing division 60 days after the accident, when the disability on these reports is computed. Each day's reports are listed in a book. If the accident report shows that no supplemental report has been received a postal card is sent to the employer and the report is placed in a pending file by name of employee. At the end of two weeks a follow-up letter is sent to the employer. Two weeks later a second follow-up letter is sent to the employer. If the report shows disability over 10 days and no agreement or settlement receipt has

been received, a letter is sent to the insurance company and listed in a book by report number and employee's name. If no reply is received within two weeks a follow-up letter is sent. At the same time a letter is sent to the employee. If the insurance company reports less than 10 days' disability and the employee does not reply the insurance company's statement is accepted as correct. If the insurance company states that the accident did not arise out of the employment a letter is sent to the employee. If the insurance company states that the employee has sued a third party, this information is checked up by writing to the employee and inclosing a claim which may be used if the latter decides to claim under the act. If the insurance company and employer report different dates of return to work, a letter is sent to the employee and the claim inclosed. If no reply to the various inquiries sent to the employer is received, a postal card is sent to the insurer, and if no reply is received from the insurer a follow-up letter is sent.

Where there is no settlement receipt on file a postal card is sent to the insurer asking for the amount of compensation paid and the date of return to work. No supplemental report is requested from the employer in agreement cases. In place thereof a postal card is sent to the insurer and if no reply is received from the insurer a second follow-up request is made. In noninsured fatal cases a letter is sent to the dependents. If no answer is received, the case is investigated by an inspector of the board.

The reports are then returned to the files and kept about two months. They are then taken out, coded, and returned to the file and later on cards are punched. The reports are separated into three groups: (1) Completed or closed cases; (2) incomplete and out-of-file cases—in the incomplete cases all data are punched except as to length of disability, and in the out-of-file cases only the number of the report is punched; (3) agreement cases in which the report number is punched and the number of the agreement is written on the statistical card. The completed cards are filed away. The agreements are later on taken from the file and cards punched. If complete they are filed away with the completed cards; if incomplete, letters are written as described above and the case is filed in a pending file, the card being attached, awaiting reply from the insurer. Out-of-file cases are looked up and the data punched later.

Accident statistics are kept and tabulated by year of occurrence. Inasmuch as the board's statistical report is not issued until a year after the period covered, the time loss of all temporary disabilities under one year is known; the others are tabulated as over one year's disability. In its statistical tabulations the board follows in general the recommendations of the committee on statistics of the International Association of Industrial Accident Boards and Commissions.

SELF-INSURANCE.

The Massachusetts compensation act does not permit employers to self-insure or carry their own risk.

INSURANCE.

In order to accept the act each employer must insure in some private casualty company: Insurance companies must file with the

board a notice of insurance of each subscriber. Such notice shows the name of the employer, the insurer, the date the policy went into force, and the date of expiration. The State insurance commissioner has supervision over rates and all matters relating to insurance companies except compensation.

SAFETY WORK.

The board performs no safety work whatever. This is a function of the department of labor and industries. Formerly the board was given authority in cooperation with the then board of labor and industries to issue safety rules and orders and to undertake safety work. This cooperative arrangement was not successful and the statute authorizing this joint enforcement was repealed.

MICHIGAN INDUSTRIAL ACCIDENT BOARD.⁴⁰

The Michigan compensation act is elective as to compensation and compulsory as to insurance. All industries are covered except agriculture and domestic service. All employers must insure with the State fund or with private casualty companies or provide self-insurance. The State fund is under the supervision of the insurance department and a board of directors representing the policyholders of the fund.

The act is administered by an industrial accident board of three members appointed by the governor for a term of six years. The board is authorized to appoint its own employees. The administrative expenses of the board are paid out of the State treasury from moneys regularly appropriated. The board does not perform any safety work, this being the function of the department of labor.

Compensable accident cases are settled by voluntary agreements which must be approved by the board. In disputed cases the matter comes first before an arbitration committee of which a deputy commissioner or member of the board is chairman. Appeal may be had from the deputy's decision to the full board and from the board to the courts.

ACCIDENT REPORTING AND CLAIM PROCEDURE.

Accident reporting.—Only employers subject to compensation act report accidents, but all their accidents are required to be reported. These reports must be transmitted to the board by the employers and not through the medium of the insurance carriers. The statutory waiting period is one week.

The following reports are required: Employers' first report, Form A (abbreviated form) for noncompensable; Form B (regular form) for compensable accidents; agreement; partial receipt; final receipt; and final report from insurance company.

Noncompensable accidents.—Noncompensable accidents, reported on a condensed form, are filed in a drawer, by date of accident, each month's accidents being kept separate. Each day's accidents are filed in alphabetical order by name of employer. A distributor cabinet is used for separating reports. Each cabinet index card bears the day of the month, each day having a guide card for each letter

⁴⁰ The Michigan Industrial Accident Board was consolidated with the Department of Labor in 1921.

of the alphabet. If a compensable accident is reported on Form A, a request is made to send Form B, a copy of which is inclosed; a copy of an agreement form is also inclosed. Nothing more is done with these noncompensable accident reports.

Compensable accidents.—Reports of compensable accidents are first examined as to completeness. Then an employee's index card is made (current follow-up index) which contains the names of the workman and employer, the date of the accident, and the date of receipt. A red check mark is put on the accident report when this card is made. The cards are then filed on a revolving index in alphabetical order by name of employee. This card is also used as a charge index, i. e., the subsequent location of the case is noted on the card.

Next, an employer's index card is made (current cross index). This consists of two detachable parts. Part 1 contains the employer's name; part 2, the employee's name, the date of the accident, and the date of the receipt. These cards are also filed on a revolving index by employer's name and under each employer by employee's name in alphabetical order. The report is checked with a blue mark when the employer's card is made.

The accident report is then placed in a monthly follow-up file by date of accident and by name of employer. The report is placed 30 days in advance of the date of the accident, awaiting the receipt of the agreement. If the accident report shows that an agreement is due, a form letter is immediately sent to the insurer and the employee requesting that an agreement be filed, and the accident report is again set ahead 30 days.

When the agreement is received, the employee's revolving index is consulted as to the location of the report. The report is withdrawn from the file, the agreement is attached and then transmitted to the agreement clerk for examination and approval. If the agreement is irregular, it goes to the board for further action; if in order, it goes to the receipt file, where it is filed in alphabetical order by employer's name and under employer by employee.

When the final receipt of compensation is received, the case is withdrawn from the receipt file and the employee's index card is withdrawn from the revolving index, going to the completion clerk, and the whole case is examined as to completeness. The employer's index card is also withdrawn from the revolving index. If the case is complete and correct, the report, together with the employer's and employee's index cards, is numbered. The employee's card is filed in the drawer in alphabetical order within certain limits (e. g., all names within the letters Poa-Poo are filed together). The employer's index card is placed on a closed revolving index and the case filed in numerical order.

An examination and follow-up of the receipt file is made once in six months or oftener if necessary. Insurance companies must continue payments until they petition the board for permission to discontinue. The board may refuse to accept agreements from the insurance carrier and hold the employer responsible for compensation payments, which the insured employer may make to his injured workmen.

Hearings.—Compensable accident cases are settled by voluntary agreements which must be approved by the board. In disputed cases

the matter comes first before an arbitration committee of which a deputy commissioner or member of the board is chairman. In order to expedite procedure the board asks the parties to waive arbitrators and to appear only before the deputy. Waivers are agreed to in 50 per cent of the cases. Appeal may be had from the deputy's decision to the full board on review. Some cases may be heard directly by the board. Either party may appeal from the decision of the board to the supreme court. Many disputed cases are settled by informal conferences.

Permanent partial disabilities.—Permanent partial disabilities are compensated in accordance with the statutory schedule but only amputations are included in this schedule. Other partial disabilities are compensated on the basis of the resulting wage loss. In determining this wage loss the effect of the injury on the occupation of the injured man is taken into account. The board may and does pay compensation for permanent total disability if the injury prevents the injured man from resuming his regular occupation, although he may not be incapacitated from earning at other occupations. Loss of use of members is compensated only on the wage-loss basis. Some of these loss-of-use cases are granted a lump sum. In some cases compensation is paid for total disability in addition to the specific schedule.

Medical service.—The board has no medical department or medical adviser. Disputed or technical medical questions are referred to impartial physicians appointed by the board.

STATISTICAL DEPARTMENT.

The board issues a number of statistical tables, the data for each table being obtained from different sources. One clerk tabulates the data as shown on the approved agreements. The number of compensable accidents reported during the year are classified by industry, but the severity of these accidents is not shown. Another clerk tabulates the amount of compensation as shown by the receipts received during the year. These data are classified according to the four general severity groups as follows: Fatal, permanent total, permanent partial, and temporary total cases. A third clerk tabulates the amount of compensation and medical aid paid as shown by the final receipts received during the year, classified by industry.

SELF-INSURANCE.

No security is required of self-insurers except the filing of a financial statement. No special form of financial statement is required. Thus far no injured workman has suffered loss of compensation through the failure of self-insured employers. There are about 600 self-insurers, who have approximately one-third of the accidents.

INSURANCE.

Employers electing to come under the compensation act must file an acceptance with the board and must also file a certificate of insurance. The latter is, however, usually filed by the employer's insurance carrier. Employers are not under the act unless insured. The only penalty for noninsurance is liability to suit for damages

by the injured employee. Insurance companies must notify the board when a policy is canceled and the board then notifies the employer that he must reinsure or he is not under the act.

SAFETY WORK.

The board performs no safety work, this being a function of the department of labor.

MONTANA INDUSTRIAL ACCIDENT BOARD.

The Montana workmen's compensation act is elective as to compensation and compulsory as to insurance. Only enumerated hazardous industries are covered by the act. All employers must insure with the State fund or with private casualty companies or provide self-insurance. The act is administered by an industrial accident board of three members, composed of the commissioner of labor and industry (ex officio), the State auditor (ex officio), and a chairman appointed by the governor for a term of four years. The board is authorized to appoint its own employees, whose tenure of office is subject to the pleasure of the board. The administrative expenses of the board are paid out of the State treasury from moneys regularly appropriated. In addition to administering the compensation provisions the board is also charged with the administration of the State fund and with the enforcement of the safety laws. The State fund is an integral part of the board and is in the immediate charge of an accountant appointed by the board.

In disputed compensation cases the parties in interest come before the board for a hearing. However, few hearings have been held, it being the policy of the board to settle disputes whenever possible through correspondence and investigation. Appeal may be had from the decision of the board to the courts.

ACCIDENT REPORTING AND CLAIMS.

Accident reporting.—Only employers under the act report accidents, but all their accidents causing disability or requiring medical aid are required to be reported. The statutory waiting period is two weeks.

Under the Montana law three plans of insurance are provided: Plan 1, self-insurance; plan 2, insurance in private casualty companies; plan 3, State-fund insurance. Accident reports and claims for each plan are kept and filed separately. The first report of the accident is made by the employer except that under plan 2 the insurer usually reports for the employer.

Procedure under plans 1 and 2.—When the first report of the accident is received the firm or employer's number is assigned by the file clerk. A card index of employers under each plan is kept—cards being filed in alphabetical order. An employee's card is then made out in duplicate. This card contains the employee's or accident number, the name, address, and occupation of the employee, and the date of the accident. One card is filed in alphabetical order by name of employee, the other in numerical order by accident number.

The accidents and claims under each plan are numbered in separate series (for example, 20-a, 20-b, 20-c), "a" being plan 1, "b"

plan 2, etc. Separate series for each year are also kept (for example, 20-a5, 20-b5, 20-c5), the figure "5" representing the fifth year of the act. The report is then transmitted to the statistical and accounting department for further action.

When the report is returned to the filing clerk of the claims division, the physician's report and the employer's supplemental report are requested. These, however, are usually transmitted with the first report. To these reports are attached the firm, claim (if a compensable accident), and accident numbers. If the reports show that the case is a noncompensable one it is filed in the closed file by accident number. If it is a compensable case the employee is requested to file a claim made under oath. Under plans 1 and 2 these employees' claims are filed with the employer or insurer and are not ordinarily received by the board. In the meantime the reports are filed in the current accident file case in numerical order by accident number. When the claims arrive (or when receipts for compensation payments arrive) they are checked with the employer's first report. A claim index card is made and filed in numerical order by claim number. This card contains the firm, claim, and accident number; the name, address, and occupation of the employee; the date of the injury; the date when compensation begins and ends; the date each payment is made; and the total compensation paid. Each succeeding payment is added to the claim card. The case is then transferred from the accident file to the open claim file, in which the cases are filed in numerical order by claim number. Each plan is kept separate as usual. The receipts for compensation payments, which are made every four weeks, are attached to the case, and similarly the final settlement receipt. Both the open accident and claim files are examined every two weeks and missing reports or receipts requested. In the closed cases the compensable and noncompensable cases are filed separately, the former by claim number and the latter by accident number.

A monthly statement is required from each self-insured employer and each insurer showing the amount expended on account of compensation and medical, hospital, or burial expenses for each injured employee during the month.

Procedure under plan 3 (State fund).—The employers' accident reports, physicians' reports, and employees' claims are handled the same as under plans 1 and 2. An employee's claim is required in every compensable case. Payments are made every four weeks. If the disability ends before the four-week period as shown by the physician's and supplemental reports, compensation is paid at the end of disability. If the compensation period lasts over four weeks, a certificate-of-condition report form is sent to the employee, which must be signed by the employer and physician. Upon receipt of this report the board pays the compensation. However, in severe cases, if the physician has reported the probable disability, compensation is paid during the estimated disability period and the monthly certificate-of-condition reports are not required until near the end of the estimated disability period.

Each claim is approved by the board. These approval sheets are the authority for the accounting department to pay compensation. A special report form is sent to the attending physicians upon which

they itemize the services rendered. The board also has a physician's special report form for eye-injury cases.

Hearings.—In case of dispute the questions at issue are settled by correspondence if possible. Hearings are held only when negotiations fail. There have been less than 25 held thus far. In some of these only briefs were filed, witnesses not appearing in person.

Permanent partial disabilities.—Under the act only amputations and total loss of use are compensable. Partial impairments and partial loss of vision are not compensable except on the basis of loss of wage. Under the State fund, however, many of these are paid. Others are settled on a compromise basis. In impairment cases compensation is also paid for temporary total disability up to the time the board determines the injury is permanent. The board has also ruled that loss of use of a member, if practically total, shall constitute loss of member and shall receive the specific schedule amounts.

Medical service.—The board has no medical department or medical adviser. About three-fourths of the employees under the act are covered by the contract-hospital system. These hospitals are operated by private persons not connected with the employer's establishment. The employer deducts \$1 a month from the employee's wages and turns the proceeds over to the contract hospital, which must furnish unlimited service. The employer therefore bears no medical expense, while the employees must bear it all. The board may require financial reports from such hospitals, but has not requested any thus far. Employees, except those under the contract hospital system, are usually permitted to select the physician. Disputed or technical medical questions are referred to impartial physicians.

ACCOUNTING AND ACTUARIAL DEPARTMENT.

Employers' register.—The statistical work of all three plans is done in the same department. A card index is kept of every employer under each plan, filed by the employer's or firm number. Each card shows the whole history of the employer, i. e., the kind of business, the number of employees, the security, the rate, etc., and whether the firm risk has been canceled or transferred. These cards are made out by the accounting department. The data are transferred from cards to an employers' register ledger, which shows what employers are actually under the act at any given time. The new firms are recorded on a monthly report sheet and the firms whose risks are canceled on another sheet. At the end of the month they are transferred to the employers' register ledger. A record of each firm is shown in a separate book.

Accident report record.—All tabulatable accidents received are recorded and tabulated. The data on the accident report, as transmitted from the claims department, are recorded on sheets kept in a loose-leaf ledger. A sheet is provided for each report. This sheet contains practically all the information contained on the accident report and includes industry, cause and nature of injury, and extent of disability, etc. The names of the injured employees are also recorded in the "injured employees' register." A monthly summary is made from the individual sheets, the accidents being classified into three groups—(1) fatal, (2) permanent partial, (3) temporary total—and recorded on separate sheets. In each group the accidents

are classified by industry. In addition, the "fatal" sheet contains the names of the employee and employer; the "permanent partial" sheet contains the specified partial disability injuries; the "temporary total" sheet shows the nature of the injury. These data are transferred at the end of the month to the permanent ledger, separate records being kept for the fatal, permanent partial, and temporary total accidents, by industry.

Compensation payments.—The compensation payments as shown by the monthly receipts are recorded on a monthly sheet, classified by industry and severity of injury. The data on these monthly sheets are transferred to the permanent ledger, showing the number of accidents, classified by severity, and compensation and medical payments made, classified by industry.

ACCOUNTING AND ACTUARIAL DEPARTMENT.

Classification and rates.—The law classifies the industry according to hazard and prescribes the rate for each classification. There are 26 classes and 103 subclasses. The board is authorized to change the classification of a risk and to change the rate of a classification if the experience warrants. Such changes in classification and rates have been made by the board. If the losses exceed the premium income provided through the statutory rates, the classification may be transferred to another having a higher rate or the rate itself may be increased. If the statutory rate produces a premium income in excess of the losses, the rate is reduced by decreasing the number of monthly assessments. In fact, during each of the first two years only four monthly assessments were made, and during each of the next three years six assessments, which means that only one-third and one-half of the statutory rates were charged for the two periods. The number of assessments, when once determined, applies to all classifications irrespective of their respective loss ratios.

The class ledger shows the premium income and compensation paid for the industrial class and subclass. No computation of outstanding losses is made for the separate classifications. The determination of the rates is based principally upon the ratio of losses paid to premium income. However, the accountant is guided also by the accident experience for each class. The board makes a monthly computation of outstanding losses based upon the physician's estimate of future disability. All employees within each class have the same rate. No merit-rating system has been adopted.

Premiums and assessments.—Each employer accepting plan 3 (State fund) must file with the board an initial monthly pay roll. Upon this initial pay roll the first assessment is levied. As soon as this assessment is paid the employer comes under the act, but not until then. Thereafter the employer must file his pay roll every month; assessments are made every two months, usually upon the two preceding months' pay rolls, but the board may take any two pay rolls submitted. At the end of the calendar year an adjustment is made; either excess premiums are returned or additional premiums are required. Each employer is assessed on the same basis regardless of when he came under the act. If he came under the act in the middle of the year, he would be assessed the same proportion of his pay

roll as an employer coming under the act in the beginning of the year.

Each employer is sent a statement of his assessment. This is recorded in the assessment ledger. The premium receipts are recorded in the income register, from which the items are transferred to the firm ledger and also to the class ledger. A separate firm ledger is kept for the State and public corporations. All public agencies (and voluntary employments) must insure in the State fund. The public corporations are assessed at the rate called for by the occupation. For example, carpenters would take the building class rate, clerks the office employees' rate, etc.

The chief accountant audits the pay rolls of the larger companies when he finds time. The smaller risks are never audited. A small amount of premiums (estimated by the accountant at \$1,500) have been uncollectible.

When an employer accepts the act by paying his initial premium the State fund becomes liable for compensation in case the employer thereafter fails. The State fund brings action against the defaulting employer, and the State's claim is a first lien against the employer's property. The fund has had to take such action once, but recovered the entire amount of premium in default.

Payment of claims.—The approval sheet (see p. 178) signed by the secretary is the accountant's authority to pay compensation. From these sheets the warrants or checks are written. The warrants must be signed by a board member and the State treasurer and countersigned by the accountant of the board. Upon the warrant is shown which accident and claim it covers. The data on the approval sheet are posted to the disbursement register, and from the disbursement register to the firm ledger and also to the class ledger.

Payments are made monthly and are sent by registered letter. Although payments are not due until four weeks after the waiting period, if the attending physician reports the injury as a serious one compensation for one or two months may be paid in advance. Thereafter the physician must report upon the condition of the injured before the next payment is made. The board generally makes payment two or three days before it is actually due. Insurance companies are inclined to delay after making first payment.

Reserves and security.—The premium income and losses for each industry class are kept separately. Each class must meet its own liabilities. Ten per cent of the premiums, however, are set aside as a reserve to meet catastrophe losses and also to apply to any class in case such class has losses in excess of its income. Thus far there has been no occasion to draw upon the reserve, which at present amounts to \$160,000, or nearly the total annual premium income. Reserves are also required in some cases (under plans 1 and 2 as well) to guarantee payments in fatal cases and other long-continuing payments. Some of the extrahazardous risks under the State fund, especially logging companies, are required to make a deposit to guarantee payments. Insurance companies are also required to deposit security with the board before they can do business in the State.

The reserves and excess cash funds are invested in Liberty bonds and county and municipal bonds.

Dividends.—No dividends are declared under the State-fund plan. It is the policy of the board to collect only sufficient premiums to meet the cost of accidents as they occur.

INSURANCE.

There is no supervision by the insurance department over insurance rates. Rebating, however, is prohibited. Insurance companies must deposit security with the industrial accident board before they can do business. Policies must also be filed with the board. Public corporations must insure in the State fund. There are no mutual companies in the State.

SELF-INSURANCE.

Self-insurers must each year furnish a financial statement under oath which is acceptable to the board. Many, however, do not give the number of employees. Quite a number of employers have been denied the self-insurance privilege, but in no case has this privilege been revoked. Employers must also deposit security at the request of the board. Only 12 out of 64 self-insurers have deposited such security, which ranges in amount from \$1,000 upward. The nature of the financial statement and the character of the employers are the determining factors in granting self-insurance. Thus far no self-insurers have failed.

SAFETY WORK.

The board is charged with the enforcement of the safety laws. The board has two mine inspectors (one coal and one quartz) and three boiler inspectors. The latter also inspect factories. The coal-mine inspector also investigates each fatal accident as to cause and reports on dependency.

NEW YORK INDUSTRIAL COMMISSION.⁴¹

The New York compensation law is compulsory as to both compensation and insurance. All enumerated hazardous industries and all other employments having four or more workmen or operators (agriculture and domestic service excepted) are covered by the act. All employers must insure with the State fund or with private casualty companies or provide self-insurance. The act is administered by an industrial commission of five members appointed by the governor for a term of six years. The commission is authorized to appoint its own employees, subject to the civil-service law of the State. The administrative expenses of the commission are paid in the first instance out of the State treasury from moneys regularly appropriated, but the commission assesses and collects from each insurance company, including the State fund and self-insurers, an amount sufficient to cover such administration expenses. The amount each insurance company must pay is prorated according to its compensation payments during the year.

In addition to administering the compensation act the commission is charged with the enforcement of the State fund and all the labor laws, including woman and child labor, factory inspection, concilia-

⁴¹ The New York Industrial Commission was reorganized in 1921, a single administrative head superseding the previous commission of five members.

tion and arbitration, immigration, etc. The State fund is in the immediate charge of a manager appointed by the commission.

The claim procedure method under the New York compensation act is unique. Hearings must be held by the commission in every compensable case. These hearings in the first instance are held by a deputy commissioner; in certain cases by a commissioner. Appeal may be had from the decision of the deputy commissioner to the full commission for review and from the commission's decision to the courts.

ACCIDENT REPORTING AND CLAIM PROCEDURE.

Accident reporting.—The following is the procedure for the New York City district. Only employers covered by the act report accidents, but all their accidents are reported. The statutory waiting period is two weeks. The accident reports when received are divided among eight units, each unit having supervision over all accidents of claimants whose names begin with certain letters of the alphabet. For example, all employees whose names begin with E, F, and G are handled by one unit, etc. Each unit consists of one examiner, one assistant examiner, two or three clerks, and two or three stenographers. All reports and correspondence are distributed by the mailing division to the units to which they belong. The accident reports are then separated by each unit into two groups, (1) probable non-compensable and (2) probable compensable accidents.

The noncompensable accidents are not indexed but are filed by month according to the date of the accident. They are filed in alphabetical order by name of employee. The reports are kept six months in the New York office and then shipped to the statistical department in Albany.

When a noncompensable accident report (of 10 days' disability or more) is received, a letter, claim form, and synopsis of law are sent to the injured workman, acquainting him with his rights and requesting him to notify the commission and file a claim if his injury has developed into a compensable accident. Each compensable accident when received is given a number. This number designates the district, the year, the unit, and the number of the accident. For example, the number 1-9-3-3604 indicates the following facts: "1" indicates the district of the State (in this case New York City); "9" indicates the year (1919); "3" indicates the unit (E F G); and "3604" indicates the number of the accident for that year. In other words, it is the 3604th accident received by unit 3 in the New York City district during the year 1919. Each year's accidents are numbered separately.

Three indexes are made for each compensable accident: (1) The employee's index book, in which the accidents are indexed by name of employee—a separate book for each year's accidents. This index register contains the names of the employee and the employer, the date of the accident, and the file or accident number. Only those accidents which occur in the New York City district are here recorded. If reports are received from other districts they are forwarded to the branch office of the commission of that district. (2) Employer's index card, filed in alphabetical order by name of employer. This card contains the names of the employer and employee, the file or accident number, the date of the accident, and the name of the insurer. (3) Claim docket index book, in which the accidents are recorded in

numerical order by accident or docket number. This book contains the name of the employee, the date of the accident, the date when indexed, and the accident number. The claim docket is also used as a charge book.

Upon receipt of the employer's accident report, the workman's claim form and the doctor's report form are sent to the injured workman to be filled out. It is also incumbent upon employers to furnish physician's reports. Meanwhile the employer's accident report is placed in a pending file, arranged in numerical order by accident number, awaiting the receipt of the workman's claim. This file is examined once a week in order that the missing workman's claims may be requested. When the workman's claim and the doctor's report are received (though the latter is not essential), the case is sent to the calendar department and set for hearing. Inasmuch as every compensable case is heard formally by the commission, the employer's supplemental reports are of subordinate importance. When or if received they are filed with the claim. Moreover, even first reports are not absolutely necessary.

Every probable compensable case is set for a hearing irrespective of whether the case is actually compensable, or whether a claim has been made, or whether the employer's supplemental report shows less than two weeks' disability. If no claim is in and the accident report or supplemental report shows less than two weeks' disability, the case is dismissed. If the workman does not appear and the accident is probably not compensable, the case is dismissed. The injured workman is always notified to appear for hearing. Physicians' reports are not received in most cases. It is incumbent upon the claimant and the employer to furnish the physician's report. The employer and workman may enter into an agreement as to compensation, but the case later comes before the commission for a hearing in the same way as if a claim had been made.

The State fund accident reports which are received by the commission are sent to the State fund, which makes copies of such reports as it has not itself received and returns them to the commission. It also makes copies of the reports of the more serious accidents, including all death cases, which it receives and which the commission has not received. The fund also transmits to the commission copies of physician's reports and other information which it has on file which would be useful for the commission in determining the merits of the case. If there is no insurance policy on file covering the injury the commission treats it as a noninsurance case.

Formerly receipts were required from employers and insurance carriers. When these receipts were received they were arranged in numerical order by claim number, and when the case was closed the receipts were checked up and missing ones requested. At present employers and insurers submit a final report showing the total amount of compensation paid.

Hearings.—The New York practice is unique in compensation procedure in that hearings are held by the commission on every compensable accident case. When a case is complete a synopsis of it is made by the unit examiner and transmitted to the calendar department, where it is placed upon one of the calendars for a hearing. Hearings are set from one to two months after the date of the ac-

cident. The commission has the following calendars: (1) Regular calendar, in which are listed the regular nonfatal cases; (2) fatal calendar, in which only fatal cases are listed; the fatal calendar cases are heard either by the second deputy commissioner or by one of the commissioners; (3) medical calendar, in which are listed questions relating to the adequacy of and responsibility for medical treatment and to payments for medical bills; (4) final adjustment calendar, in which are listed permanent disability cases only; (5) testimony calendar, in which are listed those cases requiring expert or lengthy testimony; (6) motion calendar, in which are listed motions for rehearing of cases before the commission; (7) session calendar, in which are listed review or difficult cases; (8) lump-sum calendar, in which questions involving the granting of a lump sum are listed.

Hearings are so arranged that all the cases of a given insurance carrier may be heard before one commissioner upon a certain day of the week. For example, on Monday the Aetna cases may be heard; on Wednesday the Travelers cases; on Friday the State fund cases, and so on. After a case is heard it is returned to the claims division with notations as to what action was taken at the hearing. At least two hearings are held on most cases—the original hearing and one when the case is closed. Awards are always made for definite periods, generally for the time up to the hearing, but occasionally for certain periods in advance, at the expiration of which another hearing is held. Long-continuing cases have numerous hearings. If the injured workman is in a hospital at the time of the hearing the insurance company may waive his appearance in person at the hearing. Final hearings are held when disability ends.

When the cases are returned from the hearing department to the claims division they are divided into closed and open cases. The closed cases are filed in numerical order and later sent to the statistical department at Albany. Most of the open cases are disposed of by placing them on one of the above-mentioned calendars. Others are filed in a pending file, awaiting further action and subsequent hearings.

At the initial hearing the commission frequently finds that it requires additional information before it can decide the case. An investigation is therefore made by the claims division and the case set for a later hearing, at which time the results of the investigation are presented. Such investigation includes the following questions: Manner of death, dependency, married status, whether the accident arose out of the employment, and medical service furnished.

Under the law the injured workman must have his claim sworn to, but this provision is not insisted upon by the commission. As already noted, hearings in the first instance are usually held by a deputy commissioner. The deputy's decision may be reviewed by the commission and appeal may be had from the commission's decision to the courts.

Permanent partial disabilities.—Compensation for permanent partial disabilities is paid in accordance with the statutory schedule, these payments being in lieu of all other compensation. In case of partial loss of use of a member, the degree of permanent disability and the amount of compensation therefor is determined at the final

adjustment hearing. The injured workman is then examined by the medical department of the commission, outside expert physicians being called in if deemed necessary. The degree of disability is based upon loss of function only.

Medical department.—The commission has a medical department which consists of a chief medical adviser and five assistants (four in New York City and one up-State). Claimants are examined by the medical advisers at or before the hearing.

STATISTICAL DEPARTMENT.

All of the statistical work of the commission, including accident statistics, is done by the bureau of statistics and information (a subordinate branch of the industrial commission) at Albany. When an accident case is closed the files are sent to the statistical department at Albany. No accident statistics have been published for several years.

SELF-INSURANCE.

A financial statement of assets, liabilities, etc., is required from all self-insurers and such statement must be renewed annually. In addition to the financial statement each self-insurer must deposit collateral security (surety bond not permitted). Each self-insurer must also report to the commission every six months all outstanding death claims and all disability claims of 104 weeks' disability. If the present worth of such claims equals one-half of the security deposited, additional security is required. There are about 350 self-insurers in the State. Self-insurance tends to increase.

PENNSYLVANIA WORKMEN'S COMPENSATION BUREAU AND BOARD.

The Pennsylvania workmen's compensation law is elective as to compensation, and compulsory as to insurance. All employments except farm labor and domestic service are covered. All electing employers must insure with the State insurance fund or with private casualty companies or provide self-insurance. The State fund is not administered by the workmen's compensation bureau or board, but by a specially created workmen's insurance board consisting of the commissioner of labor and industry, the insurance commissioner, and the State treasurer. The compensation act is administered by two State departments. The initial administration of the act is under the bureau of workmen's compensation of the department of labor and industry. This bureau has supervision up to the time the case goes to a hearing. In case of a dispute or when an application for a hearing is made, the matter comes for hearing before one of the district referees. These referees are independent of each other, but are directly responsible to the commissioner of labor and industry, by whom they are appointed, and to the workmen's compensation board. In case either party is dissatisfied with the decision of the referee, an appeal is taken to the workmen's compensation board, which is an independent judicial body of which the commissioner of labor and industry is an ex-officio member but has no vote in the disposition of cases brought before the board.

The workmen's compensation board consists of three members appointed by the governor, with the advice and consent of the Sen-

ate, for a term of five years. The commissioner of labor and industry is also appointed by the governor. The commissioner is authorized to appoint the referees and other employees of the bureau with the approval of the governor. The workmen's compensation board is authorized to appoint a secretary and other clerical employees. The administrative expenses of both the workmen's compensation bureau and the workmen's compensation board are paid out of the State treasury from moneys regularly appropriated.

As already stated, neither the workmen's compensation bureau nor the workmen's compensation board has jurisdiction over the State fund; nor have they direct supervision over accident prevention. This work is under the direction of the department of labor and industry, but is performed by the inspection bureau of the department.

The compensable accident cases are settled by voluntary agreements, which must be approved by the bureau. In disputed cases either party may file an application for a hearing before a referee. Appeal may be had from the referee's decision to the workmen's compensation board and from the board to the courts.

ACCIDENT REPORTING AND CLAIM PROCEDURE.

Accident reporting.—All employers are required to report all accidents of two days' disability. The statutory waiting period is 10 days. Insurance carriers report accidents for their insured. When an accident report is received it is examined for completeness but only in so far as affects code items. If incomplete, the original report is sent to the employer or insurer for correction, together with a letter. No record is kept of such report sent. A number is then given to the report. The supplemental report, unless already filled out, is detached and sent back to the employer. Abstract cards of the accident report are made in duplicate. One card is filed in alphabetical order by name of employer and the other sent to the employer as a receipt. These cards contain the accident number, the names of the employer and employee, the date of the accident, and the date of the receipt of the accident report, also whether the accident was fatal, the degree of disability, and whether the case is complete or continuing. Reports then go to coders, who prepare reports for the punch operators who take off the statistical information on Hollerith cards. The period of disability is estimated, unless the supplemental report is attached, in which case the actual disability is recorded.

Accident reports are then divided and treated as follows:

(1) Complete reports (supplemental report attached) involving no compensation (less than 10 days) are filed numerically in a separate case, and are kept as "live" cases for one year, after which they are barred from compensation by law.

(2) "Suspense" reports—those having incomplete supplemental reports. Supplemental reports are detached and returned to employer or insurance carrier with index card for completion. They are filed numerically. As the supplemental reports are received they are attached to original reports, which are taken from the file. If no supplemental report is received within 60 days after the accident a form letter is sent to the employer, followed by two more letters

at 30-day intervals. If there is still no response, an inquiry is sent to the employee and then the case is given to the adjuster for investigation or the workman given a claim petition.

(3) Compensation reports—showing disability of over 10 days or death. In such cases agreements should be received. As soon as an agreement is received it is attached to its appropriate accident report, the abstract card is taken from the file, and the whole case is turned over to the agreement division for approval and further action. If no agreement is received within a reasonable time a letter of inquiry is sent to the employer and action taken similar to that in the case of suspense cases.

(4) Adjuster's file—old cases which could not be settled by correspondence.

Agreements.—The case is then examined by the examiner of agreements. If it is disapproved a letter is sent to the parties pointing out the reasons for disapproval and asking that a new agreement be submitted. If no satisfactory agreement is received the matter is turned over to an adjuster, or referred to a referee for a hearing. If approved, notice is sent to the self-insured employer, or the insurance company and the employee, and the case is filed in numerical order under three separate classifications: (1) Fatal, (2) permanent disability, and (3) temporary disability. Every three months the cases are examined to see if settlement receipts are on file. When final settlement receipt is received the case is taken out of the file and filed with the permanent closed cases. Fatal accidents are investigated by factory inspectors, whose reports are submitted to the examiner of agreements.

Approval of agreements.—The agreement is approved if it tallies with the accident report. Both agreement and accident report are usually made out by the same party. The bureau's inspection department or investigator is required to investigate fatal and serious cases, especially when the facts are in dispute. If no agreement is received within 60 days from the receipt of the accident report the injured is informed of his rights under the act and assisted in filing a claim petition.

Compensation in cases of multiple injuries is paid consecutively. In some cases the agreement covers both temporary and permanent injuries. In others the agreement covers only temporary injuries, and the case is filed in the temporary accident file. If an agreement for temporary disability also involves permanent disability, it is so recorded on the agreement, and is also taken care of in the Hollerith tabulation system by an additional card for the temporary disability compensation. Temporary disability cases may be closed either by final receipt or a petition for termination before a referee, and the case may be reviewed within one year from the date of the last payment of compensation. In exceptional cases the workmen's compensation board has ordered compensation to be paid after a year has elapsed from the date of the last payment. Every three months the cases are gone over for final settlement receipts, and the absence of agreements may thus come under observation. The question of permanent disability is left largely to the employer and insurer and the employee. The latter is considered qualified to look out for his own interests.

Hearings.—The initial administration of the compensation act is under the bureau of workmen's compensation of the department of labor and industry. This bureau has compensation supervision up to the time the case goes to the hearing. In case of a dispute or when an application for a hearing is made the case goes to one of the district referees for hearing. These referees are appointed by the commissioner of labor and industry. They are independent of each other, but are directly responsible to the commissioner of labor and industry and to the workmen's compensation board. In case either party is dissatisfied with the decision of the referee, an appeal is taken to the workmen's compensation board, which is an independent judicial body, of which the commissioner of labor and industry is a member *ex officio*, but who has no vote in the disposition of cases brought before the board. Appeal may be had from the decision of the board to the court of the county in which the accident occurred.

Public defender.—The compensation law authorizes the commissioner to appoint attorneys to act as legal advisers for the bureau and to represent impecunious claimants. Under this authority the commissioner has assigned one of its legal experts to assist impecunious claimants with advice and in the preparation of their cases before the referees or board. If this attorney, acting in behalf of the claimant, is not satisfied with the decision of the referee he may, and does, appeal from such decision to the workmen's compensation board. This legal adviser also investigates commutation cases and arranges for the appointment of guardians and performs other duties of a legal nature.

Permanent partial disabilities.—Compensation for permanent partial disability is paid in accordance with the statutory schedule, these payments being in lieu of all other compensation. The injuries enumerated in the schedule are limited, however, to major disabilities, such as the loss of a hand, an arm, a leg, a foot, or an eye. In case of all other permanent disabilities compensation is based upon the subsequent wage loss. If an employee with an impaired arm, for example, or with complete loss of use of an arm, is reemployed at the same wage he received at the time of the injury he will receive no compensation for the loss of use of the arm.

Medical department.—Neither the workmen's compensation bureau nor the workmen's compensation board has any regular medical department. However, one of the physicians connected with the department of labor and industry has been detailed to the board. The duties of this physician are to examine claimants, testify at hearings, and pass upon medical questions.

STATISTICAL DEPARTMENT.

As soon as a complete accident report is received by the claims division of the workmen's compensation bureau it is transmitted to the statistical department, where the reports are coded and the desired statistical data is punched on Hollerith cards. If a case is still open when the report is received by the statistical department, the probable period of disability is estimated.

SELF-INSURANCE.

A financial statement is required from all self-insurers. In addition a financial report may be furnished by Dun or Bradstreet. A few self-insured employers have also been required to deposit security. About 40 employers have been refused self-insurance by the bureau. In no case, however, has the self-insurance privilege been revoked. One self-insurer (munitions manufacturer) went into the hands of a receiver, but all compensation obligations were met. There were 557 self-insurers in 1918. The self-insured employers have approximately two-thirds of the total accidents in the State.

SAFETY WORK.

Neither the workmen's compensation bureau nor the workmen's compensation board has jurisdiction over accident prevention. This work is performed by the bureau of inspection of the department of labor and industry. In fact the department of labor and industry is charged with the enforcement of all the labor laws of the State.

UTAH INDUSTRIAL COMMISSION.

The Utah workmen's compensation law is compulsory both as to compensation and insurance. All employments except farm labor, domestic service, and employers having less than three employees are covered by the act. All employers must insure with the State insurance fund or with a private casualty company or provide self-insurance. The act is administered by an industrial commission of three members appointed by the governor, with the advice of the senate, for a term of six years. The commission is authorized to appoint its own employees, including the manager of the State insurance fund, and to fix their salaries, subject to the approval of the governor. The administrative expenses of the commission are paid out of the State treasury from moneys regularly appropriated.

In addition to administering the compensation provisions the commission has supervision over the State fund and is also charged with the enforcement of all the labor laws, including accident prevention, factory inspection, woman and child labor, etc.

Disputed compensation cases go before a referee of the commission for a hearing. Appeal may be had from the referee's decision to the commission and from the commission to the courts.

ACCIDENT REPORTING AND CLAIM PROCEDURE.

Accident reporting.—All employers under the compensation act are required to report all tabulatable accidents. The statutory waiting period is three days. All accidents arising out of or occurring in the course of the employment and causing disability of over three days are compensable.

Every employer, whether or not insured, is required to send in a first report of accident. Also the attending physician must report the accident. Supplemental (or final) reports are required of insurance carriers, showing length of disability and amount of compensation and medical benefits paid. Supplemental (or final) reports are also required of self-insured employers, but not of insured employers if the insurer makes a supplemental report. A supplemental report is required of physicians only in special cases, especially

permanent disability cases, when the commission desires additional information. Compensation receipts are required from insurers and self-insured employers.

Filing system.—Each insurer is given a number, the State fund being No. 1. The employers of each insurer are arranged in alphabetical order and are numbered A1, A2, B1, B2, etc. Each employer's accidents are numbered consecutively. For example, an accident bearing the number 1M5-27 means that it is a State fund case, the employer's name begins with M, he is the fifth employer in that alphabet, and the accident is the employer's twenty-seventh accident. Self-insurers are given the initial number 2 and then arranged in alphabetical order.

Two index records are kept of each accident: (1) An employee's card index arranged in alphabetical order by name of employee. This card contains the employee's name and his accident number (file number). (2) An employer's card, which contains the employer's name and the file number. The employer's cards are filed first by file number and then by employer's name in alphabetical order and by injured employee's name.

When an accident report is received, the index is examined to see if it has been previously reported; if not, it is given an accident number and the two index cards are made. If the case is incomplete a follow-up card is made in duplicate; one is given to the chairman of the commission for attention. The accident reports are filed in the open file by insurer and employer in accordance with the system already explained. Every two weeks the files are examined and missing reports requested.

Hearings.—In disputed cases the matter comes before the commission's referee for a hearing. Appeal may be had from the referee's decision to the commission, and from the commission to the courts.

Permanent partial disabilities.—In the case of permanent partial disabilities, compensation is paid for temporary total disability during the healing period in addition to the statutory amounts in the schedule. The degree of disability in case of loss of use of a member is determined by the commission, being based upon the opinion of impartial physicians selected by the commission.

Medical department.—The commission has no regular medical adviser except that the secretary of the board of health upon request advises the commission upon medical matters.

SELF-INSURANCE.

Employers are required to furnish a financial statement showing their assets, liabilities, etc. The commission may also require such employers to deposit security in addition to the financial statement.

SAFETY WORK.

The commission is charged with the enforcement of all the labor laws of the State, including safety laws.

WISCONSIN INDUSTRIAL COMMISSION.

The Wisconsin workmen's compensation act is elective as to compensation and compulsory as to insurance. All employments except farm labor and those having less than three employees are subject

to the act. All employers must insure with private casualty companies or provide self-insurance. There is no State fund. The compensation act is administered by an industrial commission of three members appointed by the governor, with the consent of the senate, for a term of six years. The commission is authorized to appoint its own employees, subject to the civil-service laws. The administrative expenses of the commission are paid out of the State treasury from moneys regularly appropriated.

In addition to administering the compensation provisions, the commission is charged with the enforcement of all the labor laws of the State, including accident prevention, factory inspection, woman and child labor, arbitration and conciliation, etc.

In disputed cases either party may file an application for a hearing. These hearings are held before one of the examiners of the commission or by one of the commissioners. The testimony taken at these hearings is then reviewed by the commission as a whole and a decision rendered. Appeal may be had from the commission's decision to the courts.

ACCIDENT REPORTING AND CLAIMS.

Accident reporting.—All employers having four or more employees must report accidents, but only compensable accidents (those lasting over 7 days) are required to be reported. The statutory waiting period is one week. A confidential first report of the accident must be sent to the commission by the employer. The commission does not permit first reports to be transmitted by insurance carriers. The latter, however, must file supplemental and final reports showing amount of compensation paid.

A card is made out by the file clerk for every employer reporting accidents. This card contains the employer's name and his accident numbers, which run consecutively (each card having 277 numbers). White cards are used for employers under the act and blue cards for those not under the act. These cards are filed in alphabetical order by name of employer.

Each accident report is examined when received. Upon it is written the employer's number, the employer's accident number, the date the employer came under the act, the code number of the insurer, and the docket number if it is a compensable accident. Incompleteness of the report is noted, and it is given to clerk No. 2 (follow-up clerk) for rechecking. Frequently supplemental reports are received for which there are no first reports on file. These are noted and requests sent to the employer for the first report. Clerk No. 2, who has all these data on file, therefore examines all first reports. If supplemental reports have already been received, these are attached to the first report and all reports transmitted to clerk No. 3.

Clerk No. 3 transfers the data on the accident report to a claim docket. Each docket card contains the following data: Names of employee and employer; date of accident; cause, nature, and extent of disability; time lost, wages, and compensation rate; compensation award and amounts paid; medical costs, etc. The accident report is transmitted to the safety department for notation as to violation of safety laws and for accident prevention purposes.

The claim docket cards are given to the claim docket clerks. There are three such clerks, each clerk being responsible for claims for dif-

ferent periods. Clerk No. 3 also makes out synopsis cards for clerk No. 4, who has charge of the supplemental reports and releases. These synopsis cards contain the employee's name, the employer's name, the accident number, the docket number, and the date of the accident.

Clerk No. 4 receives the supplemental reports, which are first checked with the synopsis card. If no synopsis card is on file they are turned over to clerk No. 2, who, as already explained, is in charge of the follow-up work. The other supplemental reports, together with all papers and correspondence on file, are given to docket clerks who enter information on docket card. The chief duties of docket clerks are to check the employer's and doctor's reports with the insurance company's supplemental report; to see that the amount paid is in accordance with law, that the insurer's reports are received regularly and promptly, and that all the information called for is given; to examine temporary disabilities of long duration to see if they are not probable permanent disability cases. Docket clerks have complete supervision and responsibility over temporary disability cases unless a question of unusual importance arises. Fatal and permanent disability cases are sent to the secretary and manager of the claims department for action, although many permanent disability cases are closed by docket clerks without being brought to the attention of the commission or its examiners. These are cases in which the physician's report on file shows that the correct amount of compensation has been paid.

Fatal cases are transmitted directly (by clerk No. 3) to the manager of the claims department for action. He immediately communicates with the dependents, informs them of their rights under the law, and advises them what they must do. The commission tries to prevent these cases from getting into the hands of attorneys. The commission advises claimants when it would be to their interest to employ an attorney. As soon as cases are closed they are taken from the files and once a week such cases are sent to the statistical department for coding.

As each department examines the accident reports, omissions and incompleteness are noted in turn. Blank accident forms with the omissions checked are then sent to the employer, and he is requested to complete the report.

The following reports are required: The first report of the accident from the employer; supplemental reports from insurance companies (or self-insurers) showing compensation and medical benefits paid; the physician's report in all cases of permanent disability, occupational disease, and temporary disability lasting over three weeks. The following are not required: A report from the injured workman; supplemental reports from the employer, unless he is a self-insurer; agreements between the employer and employee.

Medical service.—The commission has no medical department. In disputed or technical medical cases the claimant is referred to expert impartial physicians for examination.

Hearings.—In disputed cases either party may file an application for a hearing. These hearings are held before one of the examiners of the commission or by one of the commissioners. The testimony taken at these hearings is then reviewed by the commission as a

whole and a decision rendered. Appeal to the courts may be had from the commission's decision.

STATISTICAL DEPARTMENT.

After the employer's accident reports have been recorded and docketed they are transmitted to the statistical department, where they are coded and punched in so far as information is available. When docket and synopsis cards of closed cases are received from the claim division the additional information is punched. This includes the number of dependents, the duration of the disability, the amount of compensation, and the medical aid.

SELF-INSURANCE.

Self-insured employers are required to furnish a financial statement showing their assets, liabilities, etc. The commission may also require the employer to furnish such security as it may consider sufficient to insure payment of all claims under compensation. Old-established reliable companies are not required to file new statements; other companies, however, must file a financial statement at the beginning of each fiscal year. In granting the self-insurance privilege the commission takes into account the employer's accident record and his previous experience in reporting accidents and settling claims.

SAFETY WORK.

The commission is charged with the enforcement of all the labor laws of the State, including the safety laws.

ADDITIONAL COPIES
OF THIS PUBLICATION MAY BE PROCURED FROM
THE SUPERINTENDENT OF DOCUMENTS
GOVERNMENT PRINTING OFFICE
WASHINGTON, D. C.
AT
20 CENTS PER COPY

▽