NEW YORK STATUTORY DISABILITY BENEFITS LAW, COVERAGE, RATES AND RATING PLANS

BY

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On April 13, 1949, Governor Thomas E. Dewey signed the Mailler-Condon Bill which, upon his signature, became Article IX of the Workmen's Compensation Law, also known as the Disability Benefits Law. The purpose of the law is to provide disability insurance for eligible workers, both employed and unemployed, who are unable to work as a result of non-occupational injury or sickness.

DEFINITIONS

Whenever used in this paper, the following terms shall have the respective meanings hereinafter set forth:

"D.B.L." means Disability Benefits Law.

"CHAIRMAN" means the Chairman of the Workmen's Compensation Board.

"TAXABLE PAYROLL" means the first three thousand dollars of earnings to each employee during the calendar year, to be reported under regulations of the Chairman.

"COVERED EMPLOYER" is an employer who, after July 1, 1949, has four or more persons, not counting excluded employees, in employment on each of at least thirty days in a calendar year.

"COVERED EMPLOYMENT" means employment with a covered employer.

"8-8-13" means waiting period of seven days for both sickness and accident and maximum benefit period of thirteen weeks.

"STATUTORY ASSESSMENTS" are assessments levied by the Chairman for administering the law and to restore the Special Fund for Disability Benefits to the required minimum amount.

GENERAL PROVISIONS

The Law requires that beginning with July 1, 1950 every employer of four or more persons, not counting excluded employees, provide non-occupational disability insurance for his employees by insuring with the State Fund or an insurer authorized in New York State, or by self insurance for (1) Statutory Benefits, or (2) a Plan at Least as Favorable. The coverage provided by the employer insures the employee while employed and during the first four weeks of unemployment. After the first four weeks of unemployment and if disabled within the next 22 weeks, an employee coming from covered employment is automatically insured by the Special Fund for Disability Benefits.

Excluded Employees

Employees not entitled to benefits include the spouse or minor child of the employer; government employees; employees of charitable, religious, scientific, literary or educational non-profit organizations; employees covered by the Federal Railroad Unemployment Insurance Act; crews of vessels on navigable waters; farm laborers; temporary extra employees; casual workers; golf caddies; day students employed part time.

Administration

Responsibility for administration and enforcement of the Law, determination of contested claims, and management of the Special Fund for Disability Benefits have been placed upon the Chairman of the Workmen's Compensation Board.

Contributions to the Cost of Benefits

The employer may deduct ½ of 1% of the wages paid to an employee' but not more than 30 cents per week. The employer pays the excess of the cost, including the cost of statutory assessments.

STATUTORY BENEFITS

Eligibility

An employee of a covered employer is eligible to receive disability benefits:

1. During employment with a covered employer, after the first four consecutive weeks of employment;

2. During a period of four weeks after termination of such employment, but not beyond a day on which the employee again performs work for remuneration or profit;

3. Immediately upon employment with a covered employer, if such employment occurs within the four-week period under "2" above;

4. Immediately upon employment with a covered employer, if such employment occurs when the employee is currently
   (a) receiving unemployment insurance benefits, or
   (b) receiving benefits for disability commencing after the first four weeks of unemployment if he would be, but for disability, eligible for unemployment insurance benefits, or
   (c) eligible for disability benefits commencing during such unemployment, if he is then ineligible for unemployment insurance benefits because he has not accumulated unemployment insurance benefit credits.

An employee regularly in the employment of a single employer on a work schedule less than the employer's normal work week, becomes eligible for benefits on the 25th day of such regular employment.

Benefit Rate

The weekly benefit rate is 50% of the employee's average weekly wage, with a minimum of $10.00, and a maximum of $26.00 per week, but if the average weekly wage is less than $10.00, the benefit is the average weekly wage.

Average weekly wage is determined by dividing the wages paid by the employee's last covered employer for the last eight weeks preceding disability by the number of weeks worked. Discretionary "average weekly wage" redeterminations are authorized if the employee did not work for his last covered employer during all of such eight weeks and if the average weekly wage otherwise determined "does not fairly represent the normal earnings of such employee."

Waiting Period

There is a non-benefit waiting period of the first seven days of disability. Successive disabilities caused by the same or related injury or sickness are deemed a single period of disability, if separated by less than three months.

Duration

The duration of benefits may not exceed thirteen weeks during any period of fifty-two consecutive calendar weeks, or during any single period of disability.

Exclusions

The principal exclusions are occupational injury or illness, pregnancy, disabilities where the employee is not under the care of a licensed physician, self-inflicted injuries, injuries due to an act of war.

PLAN AT LEAST AS FAVORABLE

A Plan may provide cash benefits which differ from the statutory benefits, either as to benefit rate, waiting period, maximum or minimum benefits, duration of benefit period, or in any other respect, and may include hospital, medical and surgical care. The aggregate value of all benefits must be at least as favorable as, i.e., actuarially equivalent to, statutory benefits. By regulation of the Chairman, a Plan, to be acceptable, must meet the following requirements:

1. The aggregate value of benefits for each employee shall be actuarially equivalent to or greater than statutory benefits.

2. The cash disability benefits meet the following minimum requirements:

(a) Equal in value to 60% of statutory benefits.

(b) Shall be at the rate of at least

Fifteen dollars per week for an employee whose average weekly wage is thirty dollars ($30) or more,

Twelve dollars and fifty cents ($12.50) per week for an employee whose average weekly wage is more than twenty dollars ($20) and less than thirty dollars ($30),

Ten dollars ($10) per week for an employee whose average weekly wage is not less than ten dollars ($10) and not more than twenty dollars ($20),

Average weekly wage for an employee whose average weekly wage is less than ten dollars ($10).

(c) A waiting period of not more than seven days.

(d) A duration of benefit period of at least eight weeks of disability during a period of fifty-two consecutive calendar weeks.

3. The plan shall generally cover the employee beginning with the first day of employment and including the first four weeks of unemployment.

The Chairman of the Workmen's Compensation Board prescribed Tables of Evaluation of Plan Benefits to evaluate a Plan to determine whether the Plan is actuarially equivalent to statutory benefits.

BENEFITS TO THE SICK UNEMPLOYED WHOSE DISABILITY BEGINS AFTER THE FIRST FOUR WEEKS OF UNEMPLOYMENT

The benefits payable to the unemployed who become disabled after the first four weeks of unemployment are paid from the Special Fund for Disability Benefits, and benefits payable from the fund are governed by the same provisions as to rate, waiting period, duration, exclusions and reductions as are applicable to disabilities during employment and the first four weeks of unemployment, but:

1. Disability benefits are not payable beyond the twenty-sixth week of unemployment;
2. If the disabled employee is currently receiving unemployment insurance benefits at the time disability commences, he is not subject to the non-benefit waiting period of seven days, and
3. The aggregate of disability benefits payable is thirteen weeks during any period of disability or during a period of fifty-two consecutive calendar weeks, including disability benefits both during employment and unemployment.

SPECIAL FUND FOR DISABILITY BENEFITS

The Special Fund for Disability Benefits is the fund which pays the benefits to the sick unemployed whose disability begins after the first four weeks of unemployment. It is administered by the Chairman of the Workmen's Compensation Board, and is to be financed through assessments levied on carriers after the initial contributions of employees and employers.

The payrolls of all employers who are subject to the Disability Benefits Law were assessed .2 of 1% of the wages paid during the period January 1 to June 30, 1950 but not in excess of 12c per employee per week, to raise an estimated $12,000,000.00 for the Special Fund. The employee paid half of this assessment through deductions from his wages and the employer paid the other half.

STATUTORY ASSESSMENTS

Whenever on April 1 of any year the moneys in the Special Fund for Disability Benefits are $1,000,000.00 below (1) $12,000,000.00, or (2) twice the benefits paid from the Special Fund in the preceding fiscal year, whichever is the greater, the Chairman of the Workmen's Compensation Board levies an assessment to restore the Fund to the above required minimum.

Annually after April 1, the Chairman of the Workmen's Compensation Board levies two assessments on the taxable payroll of all covered employees —an assessment to reimburse the Chairman for expenses for the previous fiscal year April 1 to March 30, and an assessment to bring the Special Fund for Disability Benefits up to the required minimum. The assessments are levied on all carriers and are based on the taxable payrolls for the previous calendar year. A carrier is defined as a self-insured employer, insurance company, State Fund, trustees under a plan or agreement, association or other agency permitted to provide benefits. The liability for assessments is generally assumed by the insurance company which covers the risk, by including an assessment provision in the policy.

POLICY FORMS

The insurance may be written by issuing a separate policy, by attaching a rider to the Workmen's Compensation Insurance Policy, or by attaching a rider to an existing group accident and health policy. The policy form must be approved by the Superintendent of Insurance and accepted by the Chairman. The Superintendent of Insurance and the Chairman have jointly issued Advisory Forms A, B, E, F, G, H, J and K to guide companies in drawing up D.B.L. policy forms.

REQUIREMENTS OF THE N. Y. INSURANCE LAW PERTAINING TO GROUP ACCIDENT & HEALTH RATES AND RATING PLANS

Unlike other casualty lines, which have a regulated rate structure, the Group Accident and Health rate structure, including D.B.L., is a competitive one.

The New York Insurance Law requires that:

1. All insurers file with the Superintendent schedules of premium rates, rules and classification of risks for use in connection with the issuance of Contracts of Group Accident and Health Insurance, and a schedule of maximum commissions, compensation or other allowances to soliciting agents. No insurer shall issue any policy of Group Accident and Health Insurance, the premium rate under which for the first policy year is less than that determined by the schedules of such insurer as then on file with the Superintendent. (Section 221-7)

2. An insurer may not issue a Group Accident and Health Policy which shall not appear to be self-supporting on reasonable assumptions as to morbidity or other appropriate claim rate, interest and expense. (Section 221-6)

3. Any contract of Group Accident and Health Insurance may provide for a readjustment of the rate of premium based on the experience thereunder at the end of the first year or any subsequent year, and such readjustment may be made retroactive for such policy year. (Section 222-9)

4. The Superintendent may disapprove any Group Accident and Health policy if the benefits provided therein are unreasonable in relation to the premiums charged. (Section 154-1)

5. Group Accident and Health rates may not be unfairly discriminatory. (Section 209-2)

GROUP ACCIDENT AND HEALTH RATES

Prior to D.B.L., most Group Accident and Health rates were based on monthly premiums per $10.00 of weekly benefit. Experience of companies writing a large volume of Accident and Health Insurance indicates that the morbidity on female lives is approximately 100% higher than on male lives, if maternity benefits are included, and 50% higher, if maternity benefits are excluded. For certain hazardous industries the morbidity was found to be higher than for non-hazardous industries, even though the coverage was non-occupational. As a result, the basic rate was loaded for female content where the percentage of female exposure was in excess of 10%. The rate was also loaded for certain hazardous industries by specified percentages.

The rates were based on the basic morbidity table developed by Fitzhugh*.

*Gilbert W. Fitzhugh "Recent morbidity upon Lives Insured under Group Accident and Health Policies and Premiums Based Thereon" T.A.S.A. Vol. XXXVIII, Part 2, Oct. 1937.

In part two of his paper, Mr. Fitzhugh developed a table of basic premiums. This table was used by most of the companies to arrive at the gross premiums before loading for sex and industry. These rates were known as "manual" rates. In general, the premium on a risk was adjusted at the end of the policy year depending on the risk experience. In 1949, as a result of publication of a more recent study, some manual rates were modified to bring them in line with the more recent experience.

A typical rate sheet would be as follows:

Non-Occupational Sickness and Accident Coverage
Monthly rate per $10.00 of Weekly Benefits

Day Indemnity Begins		*Benefits extend (weeks)*		
Accident	*Sickness*	*13*	*26*	*52*
8th	8th	$.60	$.72	$.93
1st	8th	.66	.77	.98
4th	4th	.77	.87	1.11
1st	4th	.80	.91	1.14
15th	15th	.52	.64	.83

The above rates would be loaded for female exposure as follows:

Percentage of Benefit Coverage on Women	*Percentage Loading (Maternity benefits up to 6 weeks included)*
Less than 11%	0
11% but less than 21%	15%
21% but less than 31%	25%
31% but less than 41%	35%
41% but less than 51%	45%
51% but less than 61%	55%
61% but less than 71%	65%
71% but less than 81%	75%
81% but less than 91%	85%
91% through 100%	95%

Where maternity benefits are excluded, divide percentage of benefit coverage on women by 2 before using the above table.

For certain hazardous industries the rates might, for example, be loaded in accordance with the following table of industry loadings.

Industry	*Add to Rate*
Breweries and Wine Manufacturers	15%
Distilleries of ethyl or methyl alcohol or of alcoholic beverages	15%
Furriers	15%
Lime, Cement, Gypsum (no quarrying)	15%
Liquor and Wine Wholesalers	15%
Marble and Stone Yards	15%
Mines (surface and underground) and Quarries	40%
Railroads	25%
Tanneries	15%
Woodsmen and Loggers	25%

D.B.L. RATE BASES

The use of the above mentioned rate structure depends on the availability of reasonably accurate data on the average amount of weekly benefit in force during each policy month. For the usual Group Accident and Health case, a record card is kept on each employee showing the amount of weekly benefit to which he is entitled. Periodic summations of these cards, with due allowance for additions and cancellations, produce the totals of weekly benefits in force necessary for premium billing purposes. The record card system is not simple to operate unless changes on individual record cards are kept to a minimum. Under most Group Accident and Health policies, individual changes in amounts of weekly benefits are kept to a minimum by use of a schedule of benefits which is based on very broad classifications as to either earnings or type of position.

Under the New York Disability Benefits Law an employee's weekly benefit is generally 50% of his average earnings and therefore may fluctuate from week to week. The use of record cards, and hence the use of a rate structure based on amounts of weekly benefits, were consequently deemed inappropriate for policies which were to provide statutory benefits. For D.B.L. rates, therefore, three new rate bases were developed:

1. For groups of over 25 lives, and in some cases for all groups, the rate is expressed as a percentage of the employer's unemployment taxable payroll. The unemployment taxable payroll is based on the first $3,000.00 of earnings of each employee during the calendar year. Since most employers subject to D.B.L. are also subject to the unemployment tax, and since these employers must calculate and report their taxable payroll quarterly to the Division of Placement and Unemployment Insurance, the percentage of unemployment taxable payroll billing method is simple and economical to administer. The rate is loaded for sex and hazardous industry.

2. For those employers who elect to deduct ½ of 1% of the wages paid to the employee, but not more than 30c per week, a factor was developed. (Some companies developed a rate which is a percentage of the payroll on which the employee's D.B.L. contributions are based.) The amount of the deductions multiplied by the factor and loaded for sex and hazardous industry is the final rate.

3. Group Accident and Health Insurance is not regularly sold to employers with fewer than 25 employees and normal group underwriting practices are very expensive when applied to groups of this size. Consequently, for the smallest groups, generally groups up to 25 lives, and in some instances not exceeding 50 lives, a statewide per capita rate, regardless of payroll, sex or industry, was developed. The final premium is the per capita rate multiplied by the number of employees on the payroll on the 15th day of each month.

A further simplification of the rate structure was effected by basing the female loadings on the percentage of women employees instead of the percentage of benefit coverage on women. This approximation is probably justified by the labor saved.

PURE PREMIUMS

Coverage under a statutory policy is equivalent to non-occupational (maternity excluded) 13-week coverage with a seven-day waiting period for both accident and sickness with the following main differences: (1) statutory coverage includes the first four weeks of unemployment while ordinary coverage ceases when the employee leaves his employment. (2) statutory coverage is limited to 13 weeks in any 52 consecutive calendar weeks in addition to the limitation of 13 weeks for any one illness. (3) in a D.B.L. policy the insurance company generally assumes the liability for statutory assessments.

The cost of extending coverage to include the first four weeks of unemployment is small during periods of full employment because on the average only a small percentage of employees leave employment each year and the employee is covered only until he finds other employment. The limitation of 13 weeks in any 52 consecutive weeks is insignificant for the younger ages. For the older ages the regular group policies issued prior to D.B.L. contain this limitation. For these reasons it was considered reasonable to use available experience of group accident and health 13-week 7-day waiting period coverage to develop the base rate. This rate was then loaded for statutory assessments. Many companies which had been writing group insurance prior to D.B.L. used their 8-8-13 rate as a basis for the statutory rates. Companies entering the group accident and health field for the first time used the following two morbidity rates to develop their rates:

	Morbidity for 8-8-13
1—1947 Inter-Company Study*	.51 weeks per year—All Male
2—1948 Inter-Company Study†	.48 weeks per year—All Male

Translated into pure premiums the above studies show a net cost for 13 weeks' benefits 7-day waiting period for both accident and illness, of 51c per year per $1.00 of weekly benefits for 1947, and 48c per year per $1.00 of weekly benefits for 1948 for all male groups. To arrive at a gross all-male rate, the pure premium must be loaded for expenses and for statutory assessments.

Loading for Assessments

As indicated above, two assessments will be levied annually by the Chairman; an assessment to cover administration of the law, and an assessment to pay the sick unemployed. The assessment for administration of the law is expected to be fairly constant. The assessment for the sick unemployed, however, is contingent on the unemployment rate. The estimated assessments are usually loaded for commissions and premium taxes but generally not for administration expense. It is to be noted that the assessments are based on taxable payrolls regardless of industry or the sex of the employees. The loading for assessments is therefore not loaded for sex or industry. The loading for assessments is estimated at from .1 of 1% to .15 of 1% of taxable payroll‡, or at from 20c to 30c per person per month.

*"Report of Committee to Prepare Mortality and Morbidity Studies on Group Insurance" Section III T.A.S.A. Vol. XLIX, Part 2, October, 1948.

†"1949 Report of the Committee on Group Mortality and Morbidity" published by the Society of Actuaries, Chicago, Ill.

‡For an explanation as to how these estimates were arrived at see Exhibit A.

DEVELOPMENT OF RATES—STATUTORY BENEFITS

Since the benefit rate and waiting period are substantially equal to the rate and waiting period under the New York Unemployment Insurance Law, it is reasonable to assume that the average weekly benefits under D.B.L. will approximate those under the Unemployment Insurance Law. Taxable payrolls under the Unemployment Insurance Law are defined as the first $3,000.00 of earnings of each covered employee during the calendar year. Thus, available unemployment insurance statistics may be utilized in developing a D.B.L. rate.

The average taxable payroll for the year 1948 was $2,496.00. The average weekly unemployment benefit rate in 1949 was $22.83. (Unemployment benefits are based on earnings the previous year).* It is estimated that the number of women employed in New York State is approximately 35% of all the employed workers.†

Percentage of Payroll Rate

Following is an example of the development of a percentage of payroll rate based on manual rates.

Manual rate for 8-8-13 is 60c per month for each $10.00 of weekly benefits for a group including up to 11% women. Because of savings in expense in handling statutory insurance, a 5% discount is allowed. The rate is then translated into a percentage of payroll rate by multiplying it by 2.283 to arrive at the monthly rate per person, by 12 to arrive at the annual rate per person, and divided by $2,496.00, which is the average taxable payroll. This rate is then loaded for female content and then increased by .1 of 1% of taxable payroll to cover statutory assessments.

$$\frac{\$.60 \times .95 \times 2.283 \times 12}{\$2,496.00} = .626\%$$

Percentage of Payroll on Female Lives		*Final Rate % of Taxable Payroll*
0 to 11%	$.63 \times 1.000 + .1\% =$	.73%
11% to 21%	$.63 \times 1.075 + .1\% =$	.78%
21% to 31%	$.63 \times 1.125 + .1\% =$	.81%
31% to 41%	$.63 \times 1.175 + .1\% =$	.84%
41% to 51%	$.63 \times 1.225 + .1\% =$	.87%
51% to 61%	$.63 \times 1.275 + .1\% =$	.90%
61% to 71%	$.63 \times 1.325 + .1\% =$	.93%
71% to 81%	$.63 \times 1.375 + .1\% =$	.97%
81% to 91%	$.63 \times 1.425 + .1\% =$	1.00%
91% to 100%	$.63 \times 1.475 + .1\% =$	1.03%

The above rates, excluding the assessment charge, are loaded for certain hazardous industries.

*These averages were obtained from the Division of Placement and Unemployment Insurance, N. Y. State Department of Labor and are based on the same assumptions which were used to develop Table VIII, Page 151 "Studies in Disability Insurance."

†"Studies on Disability Insurance" Page 134.

An example of the development of a percentage of payroll rate based on the 1948 Morbidity Investigation is as follows:

Pure premium—all male—for 8-8-13 is \$.48 per year for each \$1.00 of weekly benefit. If we assume a loading for expenses and contingencies of 25% of gross premium before loading for assessments, an average benefit rate of \$22.83 per week, average taxable annual payroll of \$2,496.00, loading for statutory assessments of .1 of 1% of taxable payroll, the gross rate would be:

$$\frac{\$.48 \times 22.83}{.75 \times \$2{,}496.00} + .1\% = .69\% \text{ of taxable payroll}$$

This rate would be loaded for sex and industry as shown above.

Factor Rate

For employers who deduct ½ of 1% of the salaries of their employees but not more than 30c per employee per week a factor was developed. To arrive at the premium, the deductions are multiplied by the factor. To arrive at a factor rate, the same assumptions may be used as were used for developing a percentage of payroll rate except that the average payroll would be slightly higher than \$2,496.00, since the maximum taxable payroll is \$3,000.00 while the maximum deduction of 30c is ½ of 1% of \$60.00 a week or \$3,120.00 a year. It is estimated that the average payroll based on a maximum of \$3,120.00 a year is \$2,518.00 a year*. A factor would be arrived at as follows, using the above assumptions:

$$\frac{\$.60 \times .95 \times 2.283 \times 12}{\$2{,}518.00} + .1\% = .72\%$$

$$\frac{.72\%}{.5} = 1.44$$

The factor to be applied to deductions if the female content is less than 11% is 1.44. The rate is loaded for female content in excess of 11% and for industry as indicated above.

Statewide Per Capita Rate

Following is an example of the development of a statewide per capita rate based on manual rates. Manual rate for 8-8-13 is 60c per month for each \$10.00 a week benefit. This rate is loaded 17.5% for an estimated 35% women workers in New York State. The per \$10.00 weekly benefit rate is then changed to a per person rate by multiplying it by 2.283 based on an average benefit rate of \$22.83 per week. The rate is then increased by 21c which is the loading for statutory assessments.

$$\$.60 \times 1.175 \times 2.283 + \$.21 = \$1.8195$$

Per capita rate per employee per month rounded to the nearest 5c = \$1.80.

*This estimate is based on a report dated Feb. 7, 1950 of the Bureau of Research and Statistics of the N. Y. State Department of Labor, which report contains a wage distribution table of employees covered by unemployment insurance. The table lists the distribution up to \$3,000.00 per employee per year and states that 21.24% of the employees received over \$3,000.00 per year. Exterpolating this table the following figures were arrived at: 6.25% of the employees receive between \$3,000.00 and \$3,120.00 a year (average \$3,060.00) and 15% receive over \$3,120.00 a year. Based on these figures an average annual wage of \$2,518.00, including wages up to \$60.00 per employee, was arrived at.

An example of the development of a per capita rate based on the 1948 morbidity investigation is as follows:

Pure premium—all male—for 8-8-13 is \$.48 per year for each \$1.00 of weekly benefit. The rate per month is 48c divided by 12. This rate is loaded 17.5% for the estimated 35% women workers in New York State. If we assume a loading for expenses and contingencies of 25% of gross premium before loading for assessments, an average benefit rate of \$22.83 per week and a loading of 21c per person per month for statutory assessments, the gross rate would be:

$$\frac{\$.48 \times 1.175 \times 22.83}{12 \times .75} + \$.21 = \$1.64 \text{ per person per month}$$

There are a number of variations of the above rate structures. Some companies have four classes of rates as follows:

0 to 25% Female
25 to 50% Female
50 to 75% Female
Over 75% Female

Others have a male rate and a female rate, the female rate being 50% higher than the male rate before loading for assessments. There are other variations too numerous to list here.

DEVELOPMENT OF RATES FOR PLANS AT LEAST AS FAVORABLE

For the smaller groups, some of the companies developed rates for benefits in excess of statutory, such as extending the maximum benefit period to 26 weeks, no waiting period for accidents, increase of benefit rate to higher than 50% of pay, or increase maximum benefit rate to more than \$26.00 per week. Since the liability for assessments is not changed by increasing the rate or period of benefits or reducing the waiting period, all increases in the rate to provide additional benefits are made before the loading for assessments is added.

To develop a statewide percentage of taxable payroll premium rate for a benefit rate and maximum other than statutory, the wage distribution table of the National Council on Compensation Insurance may be used.* This table shows the percentage distribution of wages around the average wage. Column A gives the percentage of employees earning the given percentage of the average wage or less, Column B gives the percentage of the payroll earned by employees who receive the given percentage of the average wage or less. To illustrate, 21.52% of the employees earn 70% of the average wage or less and they earn 12.51% of the total payroll.†

For large groups the existing rate structures which are based on monthly rates per \$10.00 of weekly benefits are used. To the final premium a loading of from 20c to 30c per person per month or from .1% to .15% of taxable payroll is added to cover statutory assessments.

*See Table I. This wage distribution table is derived from the Standard Wage Distribution Table Vol. IX P.C.A.S., Page 220.

†For an example, see Exhibit B.

On the larger groups most companies allow a percentage discount graduated by size of premium, and in some cases based on the number of lives. The discount is in accordance with a discount table, which is part of the rate manual, and is based on savings in expense on large groups.

At the end of the policy year, the premium on each large risk generally is adjusted, based on the experience of that risk. The premium rate for the second and subsequent policy years may be modified, based on the experience of the risk.

Some of the companies have a retrospective rating plan, which is similar to the plan used in Workmen's Compensation Insurance.

In conclusion, it must be emphasized that the group accident and health rate structure, including D.B.L., is a competitive one and while all rates must meet the statutory tests that they be self-supporting, reasonable, and not unfairly discriminatory, the rates vary from company to company. Some of the reasons for the variation in rates are lower expense of operation and lower commissions; some companies load the rate for contingencies, others do not; there are a number of different morbidity assumptions on which rates may be based.

At the time this paper was written (October, 1950), no actual experience for D.B.L. coverage was available. It is possible, that experience will prove some of the assumptions made in this paper to be incorrect.

EXHIBIT A
LOADING FOR STATUTORY ASSESSMENTS

Annually, two assessments will be levied by the Chairman, the assessment to administer the Law and the assessment to reimburse the Special Fund for Disability Benefits. The assessment to administer the Law is generally estimated at .02 of 1% of taxable payroll and is expected to remain constant through the years. The assessment to reimburse the Special Fund for Disability Benefits will vary with the rate of unemployment of covered workers since this fund pays the disability benefits to the sick unemployed, whose disability begins after the first four weeks of unemployment. Early in 1950 about 7% of the covered employees were unemployed. At that time unemployment was expected to increase. Most companies based their loading for assessments for this Fund at an unemployment rate of 10%. Some of the companies based their loading on the average unemployment rate over a cycle of 20 years and estimated that average, based on statistics of the past 20 years, at 15%. The cost of payments to the sick unemployed based on an unemployment rate of 10% was estimated at .071 of 1% of taxable payroll and for an unemployment rate of 15% at .106 of 1% of taxable payroll*. Thus, the total cost of the two assessments was estimated at .091 or .126 of 1% of taxable payroll. These estimates were then loaded 10% for commissions and premium taxes giving a gross loading for assessments of .1 or .14 of 1% of taxable payroll.

Assuming an average annual taxable payroll of $2,496.00,† the above loading may be translated into a monthly per capita loading, by multiplying

*See Table XII, Page 153, Studies in Disability Insurance.

†See text of this paper under "Development of Rates—Statutory Benefits."

\$2,496.00 by either .1 or .14 of 1% and dividing the product by 12, thus arriving at a loading of either 21c or 29c per person per month.

EXHIBIT B
DERIVATION OF A PERCENTAGE OF TAXABLE PAYROLL PREMIUM RATE FOR BENEFITS IN EXCESS OF 50% OF WEEKLY WAGE AND A MAXIMUM IN EXCESS OF \$26.00 A WEEK

Let us assume that the average weekly wage in New York State is \$54.00 per week, that the monthly premium rate per \$10.00 weekly benefit is 57c and we want to develop a rate where the weekly benefit rate is 60% of the weekly wage with a minimum of \$10.00 and a maximum of \$35.00 a week.

To simplify the calculations, let us assume that there are 100 employees on the payroll.

Average Taxable Payroll*

\$57.70 $\left(\frac{\$3{,}000}{52}\right)$ is 105% of the average weekly wage figured to the nearest 5%.

Percentage of payroll paid to employees who receive 105% or less of the average wage is 50.10% (See Table I, Col. B)

Total weekly salary of employees receiving 105% or less of the average weekly salary is (\$54.00 × 100) × 50.1% =	\$2,705.40
Number of employees receiving over \$57.70 a week is 100 × (1 — 63.31%) = 36.69 (See Table I, Col. A)	
Amount paid to these employees, excluding wages in excess of \$57.70 per employee: 36.69 employees × \$57.70 =	2,117.01
Total wages paid to 100 employees, excluding wages in excess of \$57.70 per employee	\$4,822.41

Average weekly taxable wage $\frac{\$4{,}822.41}{100} = \$48.22$

Average monthly taxable wage \$48.22 × 4.333 = \$208.94

Average Benefit Rate

\$16.67 (\$16.67 × 60% = \$10.00) figured to the nearest 5% is $\frac{\$16.67}{\$54.00} = 30\%$ of the average wage.

\$58.30 (\$58.30 × 60% = \$35.00) figured to the nearest 5% is $\frac{\$58.30}{\$54.00} = 110\%$ of the average wage.

Number of employees receiving \$16.67 or less per week is .0065 (See Table I, Col. A) × 100 = .65

Benefit exposure of these employees .65 × \$10.00	\$ 6.50
Payroll of employees earning between \$16.67 and \$58.30 per week is (.5573-.0017) Table I, Col. B) × \$54.00 × 100 = \$3,000.24	

*References are to Table I which follows.

Benefit exposure of these employees $3,000.24 × 60% =	1,800.14
Number of employees receiving over $58.30 a week is (1 — .6841) (Table I, Col. A) × 100 = 31.59	
Benefit exposure of these employers is 31.59 × $35.00 =	1,105.65
Total benefit exposure of 100 employees	$2,912.29

Average benefit rate is $\frac{\$2,912.29}{100} = \$29.12$

Percentage of taxable payroll rates excluding loading for statutory assessments is the monthly rate per $10.00 of weekly benefits (57c) multiplied by the number of $10.00 units of weekly benefit rate (2.912) divided by the average monthly taxable payroll ($208.94) or

$$\frac{\$.57 \times 2.912}{\$208.94} = .79 \text{ of } 1\% \text{ of taxable payroll}$$

This rate must be loaded for female exposure, hazardous industry and statutory assessments.

TABLE I

NATIONAL COUNCIL ON COMPENSATION INSURANCE WAGE DISTRIBUTION TABLE

Wage Expressed As Ratio to Average Wage	*COLUMN A* *Percentage of Employees Receiving Wage at Left or Less*	*COLUMN B* *Percentage of Total Wages Paid to Employees Receiving Wage at Left or Less*
10%	.02%	.00%
15%	.06%	.01%
20%	.14%	.02%
25%	.32%	.07%
30%	.65%	.17%
35%	1.24%	.37%
40%	2.20%	.76%
45%	3.66%	1.42%
50%	5.75%	2.46%
55%	8.56%	4.01%
60%	12.14%	6.16%
65%	16.48%	8.98%
70%	21.52%	12.51%
75%	27.13%	16.72%
80%	33.15%	21.54%
85%	39.39%	26.84%
90%	45.68%	32.50%
95%	51.85%	38.36%
100%	57.76%	44.27%
105%	63.31%	50.10%
110%	68.41%	55.73%
115%	73.03%	61.04%
120%	77.15%	65.99%
125%	80.77%	70.51%
130%	83.91%	74.59%
135%	86.61%	78.24%
140%	88.91%	81.46%

TABLE I (*Continued*)

Wage Expressed As Ratio to Average Wage	COLUMN A *Percentage of Employees Receiving Wage at Left or Less*	COLUMN B *Percentage of Total Wages Paid to Employees Receiving Wage at Left or Less*
145%	90.86%	84.29%
150%	92.49%	86.73%
155%	93.85%	88.84%
160%	94.98%	90.65%
165%	95.91%	92.19%
170%	96.68%	93.50%
175%	97.31%	94.60%
180%	97.82%	95.52%
185%	98.24%	96.30%
190%	98.58%	96.94%
195%	98.86%	97.49%
200%	99.08%	97.93%
205%	99.26%	98.30%
210%	99.41%	98.61%
215%	99.53%	98.88%
220%	99.63%	99.10%
225%	99.71%	99.28%
230%	99.77%	99.42%
235%	99.82%	99.54%
240%	99.86%	99.63%
245%	99.89%	99.71%
250%	99.92%	99.78%
255%	99.94%	99.83%
260%	99.96%	99.88%
265%	99.98%	99.94%
270%	100.00%	100.00%

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