

ECONOMIC SECURITY IN THE SOVIET UNION

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MOST people in the United States and Canada do not realize that the Soviet Union has an effective social security system. Undoubtedly, this position is subconsciously based on the feeling that the small concern shown by the Soviet government for the rights of individuals extends to aged and disabled persons, who can no longer be productive. This would also seem to be in accordance with the Communist principle, "He who does not work, neither shall he eat."

Actually, the USSR has a very broad social security system that bears many resemblances to such programs in other countries. The Soviet Constitution provides for social insurance protection. Individuals on this side of the Iron Curtain, after learning of the existence of the Soviet social security system, might well expect the benefits to be flat amounts—in accordance with the Communist principle, "From each according to his ability; to each according to his need." However, benefits under the Soviet system vary with earnings. Still another misconception that might arise is that the entire economic security of the Soviet citizen is provided by governmental programs. Although this is true to a very considerable extent, rather surprisingly it is by no means completely the case.

This paper will have as the primary purpose a discussion of economic security provisions in the USSR, both those on a compulsory governmental basis and those available to the individual on a voluntary basis. The latter include various types of individual insurance administered by government organizations. Major emphasis will be placed on the social security pension provisions. In passing, certain other related subjects will be considered, such as mortality and fertility statistics and major points of difference between the Old-Age, Survivors, and Disability Insurance system of the United States and the pension system of the USSR.

GENERAL BACKGROUND INFORMATION ABOUT THE USSR

The population of the 15 Republics of the USSR in 1959 was 208.8 million. About 40% of the populace lives on collective farms, which are, in a sense, the largest important vestige of individual enterprise. The income of such individuals depends on both the amount of work they individually do and, perhaps more importantly, on the

actual farming results of the collective. The remainder of the population is supported by employment in government-owned industrial and commercial enterprises, government departments, and government-operated farms. The Russian Republic—extending over the northern portion of the country (both European and Asian)—accounts for 56% of the population, and the Ukrainian Republic for another 20%.

The value of the rouble, in terms of American money, is not precisely determinable, since it is not widely circulated in world markets. Probably the best measure of its value is in terms of the tourist rate of exchange, namely, 10r. per U.S. dollar. The so-called official rate of 4r. per dollar is artificially high, while the black market rate of 20-30r. per dollar also has elements of artificiality.

Wage rates in the Soviet Union are of importance in considering the provisions of the social security system. Rather surprising differentials exist. Most production workers have a relatively low guaranteed wage, but their remuneration, in essence, is determined by the piece-rate method. Production workers, clerical workers, and school teachers all earn, on the average, about 800r. per month. The effective minimum for junior clerks, cleaning women, attendants, etc., is 400-500r. per month. At the other extreme, coal miners, steel mill workers, and certain other skilled manual workers earn 2,000-3,000r. per month, and top-level factory executives, government officials, and engineers, scientists, and professors may earn 5,000-7,000r. or more. By our standards, doctors and lawyers are relatively low paid at 1,200-2,000r. per month.

INDIVIDUAL ECONOMIC SECURITY MEASURES

A number of individual economic security channels are available to the Soviet citizen, including home ownership, government bonds, savings accounts, and life insurance. The government strongly encourages individuals to participate in these programs, possibly because a certain amount of purchasing power will thus be absorbed, thereby lessening the demand for immediate consumer goods.

Home Ownership

The USSR, because of war losses and other factors, has a great housing shortage. Virtually all people in urban areas live in apartment houses. Governmental efforts to solve the housing problem are primarily directed toward the building of large apartment buildings. Rents are intentionally held at a very low—and, undoubtedly, uneconomic—level. The average charge, for very limited space, (including utilities) is about 40r. per month. There is also a small program for the building of individual houses to be available for purchase or for awards as grand prizes of government-operated lotteries (such ownership applies to the houses only, as all land

belongs to the government). In the rural areas there are, of course, more individual houses, which are in many instances personally owned.

Government Bonds

Until recently, workers were compelled to buy long-term government bonds through the payroll-deduction method. When these bonds were about to begin to mature a few years ago, payment was deferred 20 to 40 years, with interest eliminated for the period. Subsequent issues of government bonds are no longer on a compulsory-purchase basis, and their nature is different from the usual type of long-term bonds. These current issues are freely redeemable at par, with the loss of only the small premium of 1% to 2½% paid at purchase. Interest, instead of being paid individually on a periodic basis or at the end of the term, is distributed at intervals during each year by lottery, with extra prizes being available in respect to bonds that have been held for some length of time.

Savings Accounts

The Soviet Union has more than 50,000 savings banks, all under government operation. About 43 million people have accounts of an average size of 1,850r. Interest is paid at the rate of 2% for short-term deposits and 3% for deposits of 1 year or more. Since there are no personal checking accounts in the Soviet Union, it would seem that most of the savings in these institutions are for short-term purposes.

*Individual Insurance*¹

A single government-owned insurance company operates in most ways like insurance companies in other countries. This company sells not only life and accident insurance, but also casualty and fire insurance (compulsorily on properties of collective farms, such as buildings, livestock, and crops, and voluntarily on buildings and furniture of individuals).

Most of the life insurance is on the short-term endowment form (5 to 20 years). In conjunction, there are generally accident disability features (which can also be purchased in a separate contract) providing for payment of the face amount upon permanent total disability, or payment of part of the face amount upon permanent partial disability with waiver of premium applicable to the remainder of the face amount, in case of disability caused by accident. The policies are issued in units of 1,000r., with those for 5,000r. or less being on either a medical or nonmedical basis; if on the latter, payment for death in the first year

¹ More extensive details on this subject can be found in "Voluntary Insurance in USSR" by Robert J. Myers in *Eastern Underwriter*, May 22, 1959.

is made only when due to accident or infectious disease. Although annual premiums are provided for, in practice they may be paid monthly, quarterly, or semiannually with no additional charge (unpaid premiums for the year of death being deducted from the policy proceeds).

Incontestable provisions and nonforfeiture options, somewhat like those of policies in other countries, are contained. Loans, however, are limited to 75% of the cash value and carry an interest rate of 4% (as contrasted with the 3% interest basis of the premiums and reserves).

The policies are nonparticipating, and the system is intended to be completely self-supporting both as to insurance costs and administrative expenses. In fact, it seems that the company earns some profits, which are turned over to the government. Premiums and reserves are based on the mortality experience of the urban male population in 1926-27. There are no investment problems since the assets are merely deposited with the government at the 3% interest rate required. The premium rates seem to be about the same as those of American companies when account is taken of the somewhat different forms of insurance protection provided. It is stated that some 17 actuaries are employed for valuation and analysis purposes. Reports of operations of the company are not made public.

The policies are sold and serviced by an agency force of about 40,000. Each agent has an exclusive geographic territory and is remunerated by commissions that vary from 6% to 20% depending on the type of insurance (and apparently do not depend upon the duration of the policy). The earnings of the agents appear to be relatively good, since they are about 50% higher than the average wage in industry and commerce. Interestingly, if an agent builds up a very high commission income from his particular geographic district, the area is subdivided and another agent brought in. Generally, the agents collect the premiums at the homes of the insured, but there is no company obligation to do this, or even to send annual premium notices, so it is up to the policyholder to keep the policy in force.

There are certain other restrictive provisions not present in policies in other countries. No payment (face, cash, or reserve value) is made when a crime is involved, or in case of suicide. Also, if claim is not made for the endowment or death proceeds within 2 years, the proceeds are forfeited.

Information on the operations of this company is difficult to obtain. It appears, however, that about 10 million persons are insured for life and accident, with the average life policy being about 5,000r. and the average "accident only" policy about 10,000r. Considering the Soviet

philosophy, the amount of individual insurance in force seems relatively large.

The individual insurance proceeds are payable in addition to any social security benefits. Advertising by this insurance company urges collective farm workers to buy accident insurance because they are not under the social security pension system—as will be discussed in more detail later.

SOCIAL SECURITY BENEFITS OTHER THAN PENSIONS

The benefits provided under the Soviet social security system relate to all risks except unemployment, which is said not to exist. Actually, there is a certain amount of what we would define as unemployment, principally of a seasonal and frictional nature. The Soviets claim that there is no unemployment, on the grounds that anybody who wants to get work can readily obtain it (although not always of the type desired).

Medical Care

Almost complete medical care is available for all persons in the Soviet Union under a system of government-operated clinics and hospital with salaried doctors. The only direct costs to individuals are partial charges for inexpensive medicines and similar items. There is a small amount of private practice of medicine by salaried doctors during their off-duty hours. This is used primarily by higher paid patients to avoid long waits at the clinics for minor ailments.

Cash Sickness Benefits

All workers in commerce, industry, government service, and government-operated farms have cash sickness benefits available that are, to some extent, like sick leave. Coverage for this type of protection thus applies to virtually all workers except the approximately 40% on collective farms. These benefits are payable directly by the employing enterprise.

The benefits are payable without a waiting period and for an unlimited duration, except that, as a practical matter, after 2 to 4 months of continued sickness the individual is transferred to the disability pension roll. The benefits are related to the average earnings in the last 2 months in accordance with the following table:

Continuous Years of Service with Enterprise	Benefit as Percentage of Earnings
Under 3	50%
3 to 5	60
5 to 8	70
8 to 12	80
12 or more	90

There are certain significant restrictions on these benefits. Persons who are not trade union members receive only 50% of the above amounts (virtually all workers do belong to a trade union, but apparently failure to grant or continue such membership can be a disciplinary measure in this respect, as well as in others). Also workers who have transferred from one job to another without approval are not eligible for any sickness benefits during the first 6 months of the new employment. Furthermore, the maximum daily benefit is 100r.

Cash Maternity Benefits

The coverage for cash maternity benefits and the method of administration are exactly the same as for cash sickness benefits. The duration of the benefits is 8 weeks before birth and 8 weeks afterward (with an additional 2 weeks if there were plural births or an abnormal confinement). The amount of the benefit as related to the "recent" earnings is as shown in the accompanying table (except that those not members of a trade union receive the 66 $\frac{2}{3}$ % benefit in all cases).

YEARS OF SERVICE		BENEFIT AS PERCENTAGE OF EARNINGS	
Continuous with Present Enterprise	Total with All Enterprises	First 20 Days	Remainder of Period
Under 1	66 $\frac{2}{3}$ %	66 $\frac{2}{3}$ %
1 to 2	66 $\frac{2}{3}$ %	100
2 or more	Under 3	75	100
2 or more	3 or more	100	100

Short-Term Work-Connected Disability Cash Benefits

The coverage for short-term work-connected disability cash benefits and the method of administration are the same as for cash sickness benefits. The benefit in all instances is 100% of "recent" earnings (with no maximum daily benefit) and commences from the first day, with no fixed duration (but, rather, with conversion to a disability pension after a period of 2 to 4 months). There are no restrictions against persons who do not belong to trade unions or who have transferred between jobs without permission.

Family Allowances

Certain family allowance payments are available for all persons in the Soviet Union (payable through the savings banks). These benefits are of a relatively restricted nature since, unlike many countries, they do not

apply to all children in the family or to all but the first child. Three separate types of benefits are payable—lump-sum payments upon the birth of a child of third order or higher, monthly payments to a child of fourth order or higher, and monthly payments to unmarried mothers. Another program provides a small lump-sum payment on the birth of each child—in essence, for the purchase of a layette.

The lump-sum and monthly payments for children of mothers with large families are as shown in the accompanying table. The monthly

Birth Order	Lump-Sum	Monthly Payment
3	200r.
4	650	40r.
5	850	60
6	1,000	70
7	1,250	100
8	1,250	100
9	1,750	125
10	1,750	125
11 or higher.....	2,500	150

benefits are payable only during the period from attainment of age 1 to attainment of age 5 of the particular child, and the amount depends solely on the birth order of the child and not upon how many children under age 5 are currently in the family. It will be observed that the excess of the lump-sum payment for birth orders 4 and higher over that for birth order 3 is about as large as the monthly payments would have been if they had been payable between birth and age 1.

Monthly payments to unmarried mothers depend on the number of children under age 12 and are in accordance with the following:

No. of Children	Monthly Payment
1	50r.
2	75
3 or more.....	100

The monthly payments for both mothers of large families and unmarried mothers are relatively small in comparison with the general wage level, except in respect to children of relatively high birth order. These payments are made in addition to any dependent's benefits that the child might receive under the general pension system.

PENSION BENEFITS

The Soviet Union has a general pension system providing monthly old-age, disability, and survivor benefits. Its general pattern is similar

to that of earnings-related programs of this type in other countries. All workers are covered except for the very important category of collective farmers and a few minor groups such as the relatively few self-employed persons (but note that the few domestic servants are covered). In the aggregate, some 40% of the labor force is not covered.

In addition to the general pension system, there are also pensions for war victims, and special and personal pensions. Special pensions are payable under definitely prescribed rules to a number of occupational categories (such as aviators, actors, ballet dancers, scientists, and academicians and teachers) and are, in a sense, a reward for long service. Special pensions are payable after specified service periods, often regardless of subsequent employment, but are offset against any benefits later received under the general pension system. Personal pensions are individually awarded for extraordinary accomplishments, and the amounts and conditions therefor are not subject to definite rules.

A limited amount of protection in the pension area is available for collective farmers. Each farm has a mutual benefit society that usually provides relief in needy cases, although some of the more wealthy farms have recently established formal pension plans.

The remainder of this section will deal with an extensive analysis of the general pension system—taking up, in turn, eligibility conditions, beneficiary categories, benefit formulas, and illustrative benefits.

Eligibility Conditions

The eligibility requirements for old-age pensions involve both attained age and length of service, varying by sex and by type of employment and with more liberal provisions applicable to blind workers and to mothers of large families (see Table 1). Eligibility conditions (and benefit amounts, too) vary for three different categories of employment. By "dangerous work" is meant employment underground, in hot shops, or under harmful conditions, while by "difficult work" is meant certain other types of employment involving great skill and producing goods that are considered very important (such as much of the work in metallurgical plants that is not considered "dangerous work").

The minimum retirement age for men is 60, and 25 years of service is required for a full pension. There is a 5 year differential both as to age and length of service for women, and there are 5 and 10 year age differentials for "difficult work" and "dangerous work," respectively, and a 5 year differential in service for the latter. Old-age pensions are not payable automatically upon fulfillment of the qualifying conditions, but rather are subject to a retirement test. No pension is paid if earnings

exceed 1,000 roubles a month, while for earnings less than this a flat amount of 150 roubles (one-half the minimum basic pension) is payable. In the case of pensioners classified as having been in "dangerous work," 50% of the pension is payable even though the individual is employed.

Individuals who satisfy the necessary service requirements receive the full old-age pension even though they have not been recently employed at the time the minimum retirement age is attained. On the other hand, persons who attain the minimum retirement age but do not have sufficient service for a full pension receive a proportionate one (never more than a 75% reduction) if they have at least 5 years of coverage, of which 3 years have been immediately before application for pension. Partial pensions are completely suspended during periods of employment.

TABLE 1
ELIGIBILITY CONDITIONS AS TO MINIMUM AGE AND LENGTH OF SERVICE
FOR FULL OLD-AGE PENSIONS UNDER USSR SYSTEM*

CATEGORY	MEN		WOMEN	
	Age	Service	Age	Service
Ordinary Work	60	25	55	20
Difficult Work †	55	25	50	20
Dangerous Work †	50	20	45	15
Mother of Large Family †			50	15
Blind Worker	50	15	40	10

* Proportionately reduced pensions (not more than 75% reduction) are available to those with at least 5 years of service, at least 3 years of which immediately precede claim for pension.

† At least half of the required length of service must have been in this category (not necessarily the last service).

‡ Mother of at least 5 children, each of whom was cared for until reaching age 8.

The separate classes of disability pensions are (1) permanent and total disability requiring constant attendance, (2) other instances of permanent and total disability, and (3) permanent partial disability. Eligibility conditions are on a sliding scale, requiring increased length of service as the attained age advances (see Table 2), except that there is no service requirement for work-connected cases. Differentiation is made between men and women and also for those in "dangerous work," who have shorter requirements. The eligibility conditions for disability pensions do not coincide or merge with those for old-age pensions (as is also the case of the benefit formulas, discussed later). Partial, proportionate disability pensions are available in the same manner as for old-age pensions, except that no minimum length of service is required and except

that such partial pensions are not available to the permanent partial disability category.

The permanent and total disability pensions are payable regardless of earnings, although obviously relatively few such beneficiaries can engage in substantial employment. Permanent partial disability pensions, however, are reduced (but not more than 50%) so that current earnings plus reduced pension do not exceed previous earnings.

TABLE 2
ELIGIBILITY CONDITIONS AS TO LENGTH OF SERVICE
FOR FULL DISABILITY AND SURVIVOR PENSIONS
UNDER USSR SYSTEM*

AGE	DANGEROUS WORK†	ALL OTHER WORK	
		Men	Women
Under 20.....	None‡	None‡	None‡
20-22.....	1	2	1
23-25.....	2	3	2
26-30.....	3	5	3
31-35.....	5	7	5
36-40.....	6	10	7
41-45.....	7	12	9
46-50.....	8	14	11
51-55.....	10	16	13
56-60.....	12	18	14
61 and over....	14	20	15

* There are no length-of-service requirements for work-connected cases. In other cases, except disability class 3, proportionately reduced pensions (not more than 75% reduction) are available.

† At least half of the required length of service must have been in this category (not necessarily the last service).

‡ Except that 1 year of service is required for disabilities having onset before employment.

The eligibility conditions for survivor benefits are exactly the same as those for disability pensions. No earnings test or retirement test applies to survivor benefits once receipt thereof has begun. However, for certain beneficiary categories there is the initial qualification requirement of being incapable of work.

Beneficiary Categories

For both old-age and disability pensions, small increases (the amounts of which will be discussed later) are provided for certain dependents who are dependent on the pensioner (or who are deemed to be). Such individuals include (a) children (and, in certain instances, brothers, sisters, and grandchildren without able-bodied parents) under age 16 (age 18,

if in school) or permanently and totally disabled since such age; (b) spouse and parents who are permanently and totally disabled, who have reached the minimum retirement age (60 for men and 55 for women), or who are caring for an eligible child under age 8; and (c) grandparents (when there is no other person legally required to furnish support). Survivor pensions are payable to the above-listed dependents upon the death of the worker (whether or not he is retired).

Remarriage does not terminate a widow's survivor pension currently being paid, but it does eliminate eligibility for any deferred widow's benefit. It is interesting to note that benefits to the adult caretaker of an eligible child cease when the child is aged 8, even though the child's benefits go on until age 16; this seems to indicate a philosophy that when the child is in full-time school, the caretaker should be working outside the home.

Although the various categories of supplementary and survivor beneficiaries are quite broad and diverse, actual observation of pension records indicated that relatively few such benefits are payable. This is probably, in part, because so many individuals work and thus earn benefits in their own right rather than as dependents and, in part, because apparently the requirements of true dependency are of significance.

Throughout the range of pension benefits, there is a general provision preventing duplication of benefits. Thus, a wife or a widow cannot receive both a pension based on her own earnings record and one based on her husband's record. Pensions are reduced when the beneficiary is, on a long-term basis, in a hospital, sanitarium, or home operated by the government; generally, a flat amount of 50 roubles is then paid.

Benefit Formulas

All types of pensions are based on the individual's average earnings. This is defined as the average either in the last 12 full months of work in the last 2 years or, if more favorable, in the highest consecutive 60 full months with earnings in the last 10 years. By "full month of work" is meant a month during which no work time was lost because of illness, voluntary absence, or lay-off.

The method of computing old-age pensions is shown in Table 3 for those meeting the minimum eligibility conditions for full pension. The basis is of a weighted nature since those with low earnings receive relatively higher benefits, but it is rather unusual since there is not a gradually increasing progression with changes in earnings. The basic pension is a decreasing percentage of earnings as the earnings class rises, but in order to avoid inconsistencies at or near the boundaries it is

provided that within any earnings class the pension shall not be less than the maximum one payable in the previous class. Thus, for a considerable range of each earnings class the pension is a flat amount, while for the remainder of the class it is a percentage of earnings.

Certain supplementary amounts are payable in respect to old-age pensions. Thus, a 10% increase is given for either (a) at least 15 years of continuous service with the last employing enterprise or (b) total service of at least 10 years in excess of the minimum eligibility requirement. Increases in the basic pension are also given when eligible dependents are present—10% for 1 dependent and 15% for 2 or more dependents. These supplements, however, cannot cause the pension to exceed either the 1,200 rouble maximum or the average monthly earnings.

The basic amount of the full disability pension (for those who meet the service requirement) is determined from one of the 18 different formulas, depending upon (a) whether or not the disability was work-

TABLE 3
FORMULAS FOR OLD-AGE PENSIONS UNDER USSR SYSTEM*

AVERAGE MONTHLY EARNINGS †	MONTHLY BASIC PENSION ‡	
	Dangerous Work §	All Other Work
Under 300r.	300r.	300r.
300-350	100%	100%
350-500	90% or 350r.	85% or 350r.
500-600	80% or 450r.	75% or 425r.
600-800	70% or 480r.	65% or 450r.
800-1,000	60% or 560r.	55% or 520r.
1,000 and over	55% or 600r.	50% or 550r.
Maximum Pension	1,200r.	

Supplements to Pension:

- (1) For continuous service with last employer of 15 years or for 10 years of service in excess of minimum eligibility period for full pension—10% of basic pension.
- (2) For eligible dependents—10% of basic pension for 1 dependent and 15% for 2 or more dependents.
- (3) Maximum supplement—not to cause total pension to exceed average monthly earnings or above maximum pension.

* The amounts shown are the full basic pensions for those meeting the minimum eligibility period (see Table 1). Proportionately reduced pensions (not more than 75% reduction) are available to those with at least 5 years of service, at least 3 years of which immediately precede claim for pension.

† The larger of (1) the average in the last 12 consecutive months of full employment (in the last 24 months, at most) or (2) the average in the highest 60 consecutive months of full employment in the last 120 months.

‡ Where two bases are shown, the one that produces the larger amount is used.

§ At least half of the required length of service for eligibility (as shown in Table 1) must have been in this category (not necessarily the last service).

connected, (b) the type of work, and (c) the disability class. These formulas have a high degree of symmetry and consistency, as will be seen from Table 4. Unlike the basis for old-age pensions, the disability formulas are of the smooth-junction type, with heavy weighting for lower earnings—similar to the United States OASDI benefit formula.

Some general characteristics of the disability pension formulas may be noted. In all instances, there is a heavy weighting of the lower part of the earnings as compared with the upper part. The benefit factor applicable to the lower part of the earnings does not vary by type of work, but rather only by disability class and by whether the disability is work-

TABLE 4
FORMULAS FOR DISABILITY PENSIONS UNDER USSR SYSTEM*

TYPE OF WORK	MONTHLY BASIC PENSION FOR		
	Disability Class 1	Disability Class 2	Disability Class 3
Non-Work-Connected Injury or Disease			
Ordinary	85% of 500r. + 10%	65% of 450r. + 10%	45% of 400r. + 10%
Difficult	85% of 500r. + 15%	65% of 500r. + 15%	45% of 500r. + 15%
Dangerous	85% of 600r. + 20%	65% of 600r. + 20%	45% of 600r. + 20%
(Minimum)	(300r.)	(230r.)	(160r.)
(Maximum)	(900r.)	(600r.)	(400r.)
Work-Connected Injury or Disease			
Ordinary	100% of 500r. + 10%	90% of 450r. + 10%	65% of 400r. + 10%
Difficult	100% of 500r. + 15%	90% of 500r. + 15%	65% of 500r. + 15%
Dangerous	100% of 600r. + 20%	90% of 600r. + 20%	65% of 600r. + 20%
(Minimum)	(360r.)	(285r.)	(210r.)
(Maximum)	(1200r.)	(900r.)	(450r.)

Supplements to Pension:

- (1) For continuous service with last employer (only for non-work-connected injury or disease cases)—10% of basic pension for 10–14 years and 15% for 15 or more years.
- (2) For eligible dependents (only for disability classes 1 and 2)—10% of basic pension for 1 dependent and 15% for 2 or more dependents.
- (3) For nursing allowance (only for disability class 1)—15% of basic pension.
- (4) Maximum supplement—30% of basic pension, but not to cause total pension to exceed above maximums or, except for disability class 1, to exceed average monthly earnings.

* The percentages shown are applied to the "average monthly earnings" defined the same as for old-age pensions (see footnote † of Table 3). The formulas apply for those meeting the minimum eligibility period (none required for work-connected injury or disease cases)—see Table 2. Proportionately reduced pensions (not more than 75% reduction) are available for disability classes 1 and 2 for those with less service.

connected. Conversely, the benefit factor applicable to the upper portion of earnings varies only by type of work. The breaking point in the benefit formula (above and below which the different benefit factors apply) varies only by type of work, except for those engaged in ordinary work (for whom the breaking point decreases as the degree of disability becomes lower).

Just as in the case of old-age pensions, supplements to the basic disability pensions are available for dependents (except for permanent partial disability cases) and for long continuous service with the last employer (except for work-connected cases). There is a further supplement of 15%, as a nursing allowance, for the first disability category, which would seem to be payable in virtually all such cases.

Separate minimum and maximum provisions apply to the total of the pension and any supplements for each class of disability and whether the disability is work-connected. These are proportionately reduced in the case of partial pensions. Although the system is quite liberal in granting permanent partial disability pensions, the amounts payable are relatively low, as a result of both the benefit factors and the maximum provisions.

Interestingly enough, the formulas for computing survivor pensions (see Table 5) are identical with the 18 formulas for disability pensions. The formula for 1 survivor—for each combination of type of work and whether the cause was work-connected—is the same as for the third disability class. Likewise, the formula for 2 survivors is the same as for the second disability class, and that for 3 or more survivors is the same as for the first disability class. The single difference in the computation pattern of disability and survivor pensions is that, for a given number of survivors, the minimum pension is the same regardless of whether death was due to a work-connected cause, whereas for disability pensions a higher minimum is applicable for work-connected cases. In contrast with this, the maximum benefit provision for a given number of survivors varies depending upon whether death was due to a work-connected cause (just as in the case of disability pensions, and in the same amounts).

Survivor pensions, too, have certain supplements. The same increases to the basic pension are applicable for long continuous service with the last employer but, as for disability pensions, only for non-work-connected cases. However, for work-connected cases when there are three or more survivors, there is a 15% increase in the basic pension (which could well have been incorporated in the basic formula). Further, in instances

where full orphans are involved, the pensions are determined under the higher formulas applying to work-connected cases regardless of whether death was so caused.

There is a general provision that all pensions are subject to a 15% reduction when the beneficiary is permanently residing in a rural area and is connected with agriculture. Regulations provide that this applies only to persons who live on collective farms or on other rural property and have a land allotment of more than about $\frac{3}{8}$ acre. The theory of this provision is that individuals living under such circumstances are able to grow a substantial amount of their own food.

TABLE 5
FORMULAS FOR SURVIVOR PENSIONS UNDER USSR SYSTEM*

TYPE OF WORK	MONTHLY BASIC PENSION FOR		
	1 Survivor	2 Survivors	3 or More Survivors
Death Due to Non-Work-Connected Injury or Disease			
Ordinary	45% of 400r. + 10%	65% of 450r. + 10%	85% of 500r. + 10%
Difficult	45% of 500r. + 15%	65% of 500r. + 15%	85% of 500r. + 15%
Dangerous	45% of 600r. + 20%	65% of 600r. + 20%	85% of 600r. + 20%
(Minimum)	(160r.)	(230r.)	(300r.)
(Maximum)	(400r.)	(600r.)	(900r.)
Death Due to Work-Connected Injury or Disease			
Ordinary	65% of 400r. + 10%	90% of 450r. + 10%	100% of 500r. + 10%
Difficult	65% of 500r. + 15%	90% of 500r. + 15%	100% of 500r. + 15%
Dangerous	65% of 600r. + 20%	90% of 600r. + 20%	100% of 600r. + 20%
(Minimum)	(160r.)	(230r.)	(300r.)
(Maximum)	(450r.)	(900r.)	(1200r.)

Supplements to Pension:

- (1) For continuous service with last employer (only for non-work-connected injury or disease cases)—10% of basic pension for 10-14 years and 15% for 15 or more years.
- (2) For 3 or more survivors (only for work-connected injury or disease cases)—15% of basic pension.
- (3) Maximum supplement—not to cause total pension to exceed above maximums or to exceed average monthly earnings.

* The percentages shown are applied to the "average monthly earnings" defined the same as for old-age pensions (see footnote † of Table 3). The formulas apply for those meeting the minimum eligibility period for disability pension (none required for work-connected injury or disease cases)—see Table 2. Proportionately reduced pensions (not more than 75% reduction) are available for those with less service. When full orphans are involved, the pensions are always payable on the "work-connected" basis.

Illustrative Benefits

The nature and adequacy of a social security program cannot be judged solely by its benefit formulas. Rather, these must be related to typical earnings in order to show the relative size of the benefits provided. Such a comparison is difficult for the Soviet system because of the great variety of worker and beneficiary categories and of other supplements.

Table 6 compares old-age pensions and disability pensions with earnings (the latter for the case involving no dependents can also be considered as applicable to survivor pensions) for various earnings levels running

TABLE 6
PENSIONS AS PERCENTAGES OF EARNINGS UNDER USSR SYSTEM
FOR VARIOUS ILLUSTRATIVE EARNINGS AND BENEFIT
CATEGORIES OF "ORDINARY" WORKERS*

AVERAGE MONTHLY EARNINGS†	OLD-AGE PENSION	DISABILITY PENSION‡		
		Class 1	Class 2	Class 3
With No Dependents				
400r.....	88%	85%	65%	45%
600.....	75	72	51	33
800.....	65	57	41	28
1,000.....	55	48	35	24
1,200.....	50	41	31	22
1,600.....	50	33	26	19
2,000.....	50	29	22	17
2,400.....	50	26	20	16
With Two Dependents				
400r.....	100%	98%	75%	45%
600.....	86	83	59	33
800.....	75	65	47	28
1,000.....	63	55	40	24
1,200.....	58	47	35	22
1,600.....	58	38	29	19
2,000.....	58	33	26	17
2,400.....	50	29	23	16

* "Ordinary" workers are all those who are not in dangerous or difficult work. The figures shown are based on completion of minimum eligibility period for full benefits (see Tables 1 and 2) and do not include any supplements for long service (old-age pensions), continuous service (old-age pensions and non-work-connected disability pensions), or nursing allowance (disability class 1 pensions).

† See footnote † of Table 3 for definition.

‡ Based on disability due to non-work-connected causes. The "With No Dependents" figures also indicate the survivor pension percentages (3 or more survivors the same as disability class 1; 2 survivors the same as class 2; and 1 survivor the same as class 3).

from 400 roubles a month (virtually minimum full-time earnings) to 2,400 roubles (relatively high earnings but, by no means, the maximum). The average (median) earnings in the USSR may be considered as being about 800 roubles. The pension amounts used do not include any supplements for service beyond the minimum eligibility period or for death or disability due to work-connected causes, nor do the comparisons take into account any family allowances payable. The benefit amounts for old-age pensions and disability class 1 are relatively high for those with low earnings or typical earnings, being about 65% to 75% of pay. On the other hand, for disability class 2 pensions, the benefits are somewhat less than half pay for the average worker, while for disability class 3 they are about 35% (or less). For workers with relatively high earnings, the benefits are much lower, being 50% to 60% of pay for old-age pensions, about $\frac{1}{3}$ of pay for disability class 1 pensions, $\frac{1}{4}$ of pay for disability class 2 pensions and $\frac{1}{5}$ of pay for disability class 3 pensions.

Table 7 makes similar comparisons for the "typical" worker with average monthly earnings of 800 roubles, showing the effect of various types of employment, of various supplements, and of work-connected causes. The basic old-age pension is about 65% of pay, but can range up to almost 90% of pay for an individual who had been in dangerous employment and has the maximum creditable number of dependents. Similarly, disability pensions for non-work-connected causes can range as high as 90% of pay for severe cases of disability with the maximum number of supplements and for individuals who had been engaged in dangerous employment. On the other hand, the disability pensions payable for partial disability can be as low as 30% of pay for "ordinary" workers, but as high as almost 50% of pay for workers in dangerous employment who have the full amount of supplements. Disability pensions for work-connected causes run to a somewhat higher level and, under some circumstances, can be as much as full pay for severe cases of disability and at the least are about 40% of pay for partial disabilities. The survivor pensions are about 50% of pay or less in most instances, except for cases of 3 or more survivors or work-connected deaths. Under certain circumstances, survivor benefits can fall below 30% or can be as high as 80% (and up to 90% for work-connected deaths in dangerous employment leaving 3 or more survivors).

Table 8 attempts to make a comparison of the level of benefits in the Soviet system and those in the United States OASDI program. It is a very difficult matter to make a fair and meaningful comparison because of the differences in beneficiary categories and, even more im-

portant, because of the differences in earnings levels and in the purchasing power of money. Three earnings levels are considered for each country; namely, for the USSR, monthly earnings of 800 roubles (the average earnings), 1,500 roubles (relatively good earnings), and 3,000 roubles (quite high earnings), while, for the United States, monthly earnings of \$80 (the equivalent, on a "monetary exchange" basis, of 800 roubles), \$300 (the comparable figure to 800 roubles, when considering a full-time "typical" worker), and \$600 (a relatively high-paid worker).

TABLE 7
PENSIONS AS PERCENTAGE OF EARNINGS UNDER USSR SYSTEM, FOR
AVERAGE MONTHLY EARNINGS* OF 800 ROUBLES, FOR VARIOUS
CATEGORIES OF TYPES OF EMPLOYMENT AND BENEFITS†

CATEGORY	TYPE OF EMPLOYMENT		
	Ordinary	Difficult	Dangerous
Old-Age Pensions			
Basic amount.....	65%	65%	70%
With 2 dependents and long service‡.....	81	81	88
Disability Pensions, Non-Work-Connected			
Class 1, basic amount§.....	65	68	79
Class 1, with 2 dependents or long service‡§.....	74	76	89
Class 2, basic amount.....	41	46	54
Class 2, with 2 dependents and long service‡.....	53	60	70
Class 3, basic amount.....	28	34	39
Class 3, with long service‡.....	32	39	45
Disability Pensions, Work-Connected			
Class 1, basic amount§.....	76	78	92
Class 1, with 2 dependents§.....	86	89	100
Class 2, basic amount.....	55	62	72
Class 2, with 2 dependents.....	63	71	83
Class 3, basic amount.....	38	46	54
Survivor Pensions, Non-Work-Connected			
1 Survivor, basic amount.....	28	34	39
1 Survivor, long service‡.....	32	39	45
2 Survivors, basic amount.....	41	46	54
2 Survivors, long service‡.....	47	53	62
3+ Survivors, basic amount.....	57	59	69
3+ Survivors, long service‡.....	65	68	79
Survivor Pensions, Work-Connected			
1 Survivor.....	38	46	54
2 Survivors.....	55	62	72
3+ Survivors.....	76	78	92

* See footnote † of Table 3 for definition.

† The figures shown are based on completion of minimum eligibility period for full benefits (see Tables 1 and 2).

‡ "Long service" means 15 or more years of continuous service with last employer (or for old-age pensions, 10 years of total service in excess of minimum eligibility requirement for full pension). In each instance, the maximum supplement is shown.

§ Including nursing allowance.

|| Includes cases involving full orphans regardless of cause of death.

First, the figures for the typical Soviet worker may be compared with the two sets of corresponding figures for the United States. On the whole, the U.S. relative benefits are considerably larger on the "dollar-equivalent-exchange" basis. On the "equivalent-relative-earnings" basis, however, our benefits are lower as to old-age pensions, about the same or higher for disability pensions (but note that our disability benefits

TABLE 8

PENSIONS AS PERCENTAGE OF EARNINGS UNDER USSR AND USA SYSTEMS
FOR VARIOUS ILLUSTRATIVE EARNINGS AND BENEFIT CATEGORIES*

BENEFIT CATEGORY	USSR WITH AVERAGE MONTHLY EARNINGS † OF			USA WITH AVERAGE MONTHLY EARNINGS ‡ OF		
	800r.	1,500r.	3,000r.	\$80	\$300	\$600 §
Retired Worker Alone.....	65%	50%	40%	59%	35%	21%
Retired Worker and 1 Dependent.....	72	55	40	89	53	32
Retired Worker and 2 Dependents.....	75	57	40	89	70	42
Disabled Worker Alone.....	41	27	20	59	35	21
Disabled Worker and 1 Dependent.....	45	29	20	89	53	32
Disabled Worker and 2 Dependents....	47	31	20	89	70	42
1 Survivor.....	28	19	13	44	26	16
2 Survivors#.....	41	27	18	89	53	32
3 Survivors#.....	57	35	22	89	70	42
4+ Survivors#.....	57	35	22	89	80	42

* For USSR system, based on "ordinary" workers and, where applicable, on non-work-connected disability or death and does not include any supplements for long service (old-age pensions), continuous service, or nursing allowance (disability class 1 pensions).

† See footnote † of Table 3 for definition.

‡ In essence, a "career average."

§ The maximum earnings considered for benefit purposes are, in effect, \$400 per month. The benefits for that level of earnings are here related to the \$600 earnings figure.

|| Based on disability class 2 for USSR system. In USA system, disabled worker must be aged 50 or over.

Consisting of widow and one or more children.

are of a more restricted basis, both as to definition of eligibility and ages at which benefits are available), and generally higher for survivor pensions.

Next, as to the relatively high-paid worker, the U.S. old-age benefits are relatively somewhat lower than the Soviet ones, but, for disability pensions and survivor pensions, roughly there is equivalence between the two systems (except that in the case of those with several dependents the U.S. benefits are significantly higher).

FINANCING OF SOCIAL SECURITY BENEFITS

Medical care benefits and family allowances are financed directly from the general budget of the Soviet Union, which is derived primarily

from sales or transaction taxes. Pensions and cash maternity and sickness benefits (including short-term work-connected cases) are financed in part from payroll taxes paid entirely by the employing enterprise or agency. These rates vary by industry, from a minimum of 4.4% to a maximum of 9.0%, with the size of the rate depending, in general, upon how dangerous the type of work is. For instance, most organizations involving primarily clerical operations have a rate of about 4½%, while mining has the maximum rate.

The establishment determines monthly the gross amount of contributions due, but before transmitting the money to the trade union organization the amount of pensions (for working pensioners) and cash maternity and sickness benefits that has been paid at the establishment is deducted. A certain part of the remaining money is then used by the trade union for such social services as sending individuals to sanatoria and rest homes, and the remainder is made available to the Ministry of Social Security for financing pensions to nonworking persons. The remainder of the cost of the pensions (roughly, half) is obtained from the general budget of the Soviet Union, as needed. Accordingly, it may be said that the system is operating on a current-cost basis, with virtually no accumulation of funds other than those necessary for having money available to pay pensions currently and continuously.

The variation in the contribution rates by industry is apparently intended to reflect, to some extent, the cost differences arising because of occupational employment hazards and the higher rates of benefits in respect thereto. No information is available as to the method used in determining these rates and their differentials, but it would seem that this is done on an "informed guess" basis. No long-range actuarial cost estimates apparently are made, but rather only very short-term estimates of expenditures that are used for budgetary purposes.

SOCIAL SECURITY STATISTICS

It is very difficult to obtain statistics on the operation of the Soviet social security system, either from published sources or even by direct inquiry. One reason for this is the generally widespread suspicion of the motives of those from other countries. Another reason is the general lack of information because of the great decentralization of administration and the lack of interest in statistical matters and analyses. What are generally available are large aggregates, grouping together nonhomogeneous categories such as old-age pensioners and disability pensioners, or expenditures for several different types of programs.

A few broad statistics may, however, be of some interest in indicating

that the program is really extensively in operation. In 1957, there were 18.0 million pensioners, consisting of 7.2 million persons receiving old-age, invalidity, special, and personal pensions (but not counting any dependents for whom a supplement was paid); 2.1 million survivor beneficiaries (in 1.4 million families); and 8.7 million war pensioners (including both veterans and survivors, with the figure representing the number of cases of veterans and the number of separate survivor beneficiaries).

The total expenditures for these pensioners amounted to 57.9 billion roubles in 1957, or an average of about 270 roubles a month (but note that this average is of a somewhat nonhomogeneous nature). Other data indicate that the average monthly amounts payable (before any reductions applicable to working pensioners) under the general pension system were approximately as follows: old-age, 450r.; disability due to work-connected causes, 350r.; disability due to general causes, 250r. (relatively low because of the many pensions for permanent partial disability); 1-survivor family, 200r.; 2-survivor family, 325r.; and 3-or-more-survivor family, 450r. It is estimated that the benefit payments under the general pension system amounted to about 35 billion roubles and that the total payroll of covered persons was about 460 billion roubles (based on 48 million workers at an average monthly wage of 800r.). Accordingly, the current cost of pensions is about $7\frac{1}{2}\%$ of payroll.

Other social security disbursements in 1957 amounted to 13.5 billion roubles, but it is difficult to determine just what is included—although so included are cash maternity and sickness benefits, family allowances, and certain welfare activities such as rest cures and vacations in sanatoria. The family allowance benefits of all three types amounted to about 5.1 billion roubles; these payments were made monthly to about $3\frac{1}{2}$ million children aged 1 to 4 of mothers who had had at least 4 children and to about $3\frac{1}{4}$ million children under aged 12 of unmarried mothers, and there were about $\frac{3}{4}$ million lump-sum payments to mothers giving birth to a third or higher order child.

MAJOR POINTS OF DIFFERENCE BETWEEN SOVIET PENSION SYSTEM AND OASDI

Both systems have a retirement test, with partial payment of pensions being available under certain circumstances to eligible persons who engage in only a moderate amount of employment. In both countries, survivor pensions are available for aged widows and for orphans and their mothers. The Soviet system, however, cuts off benefits to widowed mothers when the youngest child reaches age 8, apparently to encourage mothers to work. On the other hand, under OASDI, the mother draws benefits

for as long as her child is eligible. Soviet disability pension provisions are much broader than those of OASDI, since payments are made not only for permanent and total disability (regardless of age as compared with an age 50 limitation in OASDI), but also for permanent partial disability (although the benefit amounts involved are quite small).

Benefits in the USSR program tend to be somewhat larger in relation to wages than under OASDI, especially old-age pensions. This, however, may be an economic necessity since they are not widely supplemented by private savings and insurance (nor supplemented at all by private pension plans). Furthermore, the Soviet standard of living is relatively low so that, in order to provide minimum subsistence, the pension must be a high proportion of wages in most instances.

The general minimum retirement ages in the Soviet system are 60 for men and 55 for women, versus 65 and 62, respectively, under OASDI. In answer to the criticism that the United States has relatively high retirement ages, it can be pointed out that the USSR has a relatively young age distribution because of its past mortality. Thus, the proportion of the population currently over the minimum retirement ages is the same in the Soviet Union as in the United States (namely, 9.9%).

Under the Soviet system, the cost is paid entirely by the employing organization and the Government, whereas under OASDI there is equal cost-sharing by employers and the employees, with no contribution by the Government. This was a point of considerable adverse criticism by a number of Soviet officials. In rejoinder, it can be stated that American labor unions, almost without exception, favor a joint contributory system so that they have more of a voice in the program (especially when legislative changes are being considered). Furthermore, from a broad economic standpoint, there is really only a small difference between contributory and noncontributory programs. Thus, in determining wage policy, the Soviet Government could easily create a contributory system by paying higher gross wages and then deducting social security contributions.

Actually, it would appear that the reason for the noncontributory basis of the Soviet system is largely psychological. Many workers feel a great sense of gratitude to the Soviet Government for providing these pensions "free," so that there is created greater dependence on the State. American workers, on the other hand, seem to hold a contrary view; they believe that with the help of their employers, they are paying a fair share of the cost of their social security benefits and are not indebted therefor to the Government—other than for setting up the mechanism to provide them.

MORTALITY AND FERTILITY ANALYSIS²

The available data on mortality and fertility in the USSR are extremely limited, being confined to crude death and birth rates and to expectation of life at birth. Soviet publicity frequently lays great emphasis on crude death rates, stating on the basis thereof that they have the lowest mortality in the world. The reported crude death rate for the Soviet Union (7.7 per thousand for 1956) is relatively low, although there are a few countries that have smaller rates. One very important reason therefor is that the Soviet population has a relatively young age distribution, because of past high mortality due to wars and other factors (only 7.8% of the USSR population was age 60 and over in 1956, as against a corresponding figure of 12.6% for the United States).

The published Soviet figures for expectation of life at birth (63 years for males and 69 years for females, for 1955-56) do not bear out this claim since they are about 4 years lower than the corresponding figures for the United States. Moreover, an analysis by the method of standardization, using the estimated USSR age and sex distribution in 1956 as the standard, and U.S. age-specific mortality rates for 1956, indicates that the crude death rate on this basis would have been 6.18 per thousand, or 20% lower than their experience figure (or, in other words, USSR mortality is about 25% higher than that of the U.S.). This result seems consistent with the differentials in regard to expectation of life at birth previously noted.

The crude birth rate in the Soviet Union is currently at almost exactly the same level as in the United States, namely, 25 per thousand. Again, because of the younger age distribution of the USSR, this rate is deceptive. The method of standardization indicates that fertility is about 31% higher in the United States than in the Soviet Union.

² More extensive details and analysis on this subject can be found in "Analysis of Mortality and Fertility Data of the Soviet Union" by Robert J. Myers in *Public Health Reports*, November, 1959.

DISCUSSION OF PRECEDING PAPER

W. RULON WILLIAMSON:

My experience in socialist surroundings hardly equals Mr. Myers', but his paper reminded me of three personal socialist encounters: Paris under the Blum government, the ILO in Geneva just before Mr. Winant's chieftainship, Guatemala before the Communists were ejected.

In Paris in 1937, the work-week had just been cut by 25% and wages advanced. The hotels patronized by the actuaries were daily expecting an employees' strike. The hotelkeepers had delayed in implementing the new work-week, since the extra shift would greatly increase their expenditures. There was much worker talk of "social gains." The preparations for defense against Hitler lagged.

At Geneva I talked with staff members of the ILO, mainly socialist or communist. They scorned the ways of capitalism. They looked down upon our American checks and balances. They took issue with the Jeffersonian dictum that the Government which governed least was the one most apt to govern best. They denied the obvious truism that values were lost when men assumed bureaucratic duties for which they were unprepared. Later, two of the staff, when they had moved to Canada, met deaths reported as accidental, which were explained to me as "liquidation for Trotskyite deviation."

In Guatemala where "Social Budgeting" had been legally accepted, the ease with which the law was adopted was explained by the presence of Communists in charge. There, too, certain deaths and near-deaths seemed political reprisals. They may have been instrumental in the next revolution's elimination of the Communists.

Comparing Mr. Myers' snapshot report of Russian conditions with the moving-picture of our 23 years of OASI administration, and our progressively more centralized control, we have seen increasing inroads into individual choice, and the increase in the compulsory "social security." I looked up Admiral Ben Moreell's *To Communism by Majority Vote*, and then looked him up. I added Kilpatrick's *The Sovereign States*, William Henry Chamberlin's *The Evolution of a Conservative*, James Burnham's *Congress and the American Tradition*. All four publications give cumulative evidence that some traditions of this unique American experiment are being steadily discarded.

It seems that Mr. Myers is indicating that perhaps an equal instability of purpose is present in the Soviet enterprise and that, as we in the U.S.A.

try alien experiments in top-heavy collectivist programs, the Soviet Union lets its citizens play with capitalist and bourgeois accumulation of private personal property.

This could bring a modicum of hope that here, too, monopolist-like power might subside, that errors might be not only deplored but corrected, and that respect for the individual and his property could return.

J. BRUCE MACDONALD:

I found this a most interesting paper, on a little known subject. Most people do not seem to have any conception of the social insurance programs of other nations, with the few exceptions such as the U.S.A., Canada, the United Kingdom, Sweden, and Germany. One way of finding this out is through the *Bulletin of the International Social Security Association* in Geneva. Since I began reading it I have learned much.

For example, the latest issue contains articles on the programs of Israel and Turkey, and notes on ten other countries. An earlier issue had information about China; I must confess I had never thought of China and social security simultaneously. It appears they have a well-functioning plan of old age benefits.

(AUTHOR'S REVIEW OF DISCUSSION)

ROBERT J. MYERS:

Mr. Williamson's discussion is by way of commenting on communistic and socialistic activities and requires no direct reply since it does not relate directly to the factual aspects of my paper. I quite heartily concur with Mr. MacDonald's point that one of the most valuable sources of information on the status and current developments for foreign social insurance programs is the *Bulletin of the International Social Security Association*. I might further point out that this Association publishes, on a semiannual basis, a more technical periodical that should be of interest to actuaries concerned with the subject of social insurance, namely *The International Review on Actuarial and Statistical Problems of Social Security*.

I should like to add some corrections and additions to my material on the Soviet individual insurance organization, based on comments I received from the USSR in regard to my *Eastern Underwriter* article.

The organization Gosstrakh is an independent legal entity, with its own separate accounting and with supervision by the Ministry of Finance. Of the 40,000 agents, only 8,000 are full-time, with the remainder holding other jobs as well.

The short-term endowment policies have an accident disability provi-

sion as follows: for disabilities of 5% loss of working capacity or more, this proportion of the face amount is payable, and the insurance remains in full force, with full premiums being required for disabilities of less than 30%, half premiums for disabilities of 30% to 50%, and no premiums for disabilities of over 50%. Death claims in suicide cases are paid if the insurance has been in force for 2 years (but no payment of any kind is made when a serious crime is involved, regardless of duration). The premium rates were formerly calculated on a 1926-27 mortality table, but since mortality at the most common insurance ages subsequently decreased 50% as measured against this table, the present basis is a revised table.