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ANALYSIS OF 157 GROUP ANNUITY PLANS AMENDED IN 1950-54

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TABLE OF CONTENTS

Sec	tion	Page
	Foreword	(iii)
A.	Introduction	1
₿.	Summary of Major Amendments	2
C.	Type of Plans	4
D.	Eligibility	6
E.	Retirement Age Normal Retirement Early Retirement Deferred Retirement	9 9 9 12
F.	Employee Contributions	15
G.	Retirement Benefits Future Service Past Service Minimum Benefits Disability Benefits	20 20 25 26 30 32
н.	Vesting	33
ı.	Integration	38
	Appendix Plans of Nonprofit Organizations	42
	Actuarial Studies Available from the Division of the Actuary	43

LIST OF TABLES

Table		Page
1.	Plans Revising Employee Contribution Rate Classified by Change in Future Service Benefit Rate	16
2.	Plans Classified by Minimum Benefit ProvisionIncluding OASI	28
3•	Plans Classified by Minimum Benefit Provision—Excluding OASI	29
4.	Distribution of Plans by Type of Vesting Requirements	37
5•	Integration Revisions	40
6.	Distribution of 157 Plans by Former and Revised Integration Features	41

FOREWORD

This study, prepared by Mrs. Van Eenam and Miss Penman presents an analysis of amendments made in 157 group annuities following the extensive 1950 legislative amendments to the Social Security Act. The provisions of the amended plans are compared with those of new plans that were underwritten during the period 1946-50 (Actuarial Study No. 32).

Since the benefits under these amended plans supplement oldage benefits under the OASI system, an attempt is made to evaluate the changes in the light of the amendments.

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This study has been prepared for the use of the staff of the Social Security Administration and for limited circulation to other persons in administration, insurance, and research concerned with the subject treated. It has not been submitted to the Commissioner of Social Security for official approval.

ANALYSIS OF 157 GROUP ANNUITY PLANS AMENDED IN 1950-54

A. Introduction

This office has previously reported on studies of newly adopted group annuity plans. The last such report analyzed 346 plans of the 1946-50 period (Actuarial Study No. 32). The present study analyzes 157 group annuity plans revised since the Social Security Act Amendments of 1950. Comparisons are made with plans adopted during the previous 4-year period.

The distribution of the 157 plans according to original date and the date of last previous revision is as follows:

Period	Original Date	Date of Last Previous Revision
Before 1935	10%	1 %
1935-39	16	10
1940-44	1.7	30
After 1944	27	55 -
Unknown		4
Total	100	100

Throughout the study, the summaries of distribution relate to number of plans and not to coverage. Thus, a plan covering only a few hundred employees is given the same weight in the analysis as one covering thousands of persons.

In addition to the above, a less detailed analysis of the revised retirement plans of 15 nonprofit organizations is given in the appendix. These plans were revised upon the adoption of OASI coverage.

B. Summary of Major Amendments

In analyzing certain revisions of the 157 plans, a comparison is made where possible with corresponding provisions of the former plan. Since details of provisions previously in effect are not available in some instances, the comparison is limited.

A number of booklets indicate that liberalization of the plan was necessary because of changing economic conditions, inflation, the impact of union negotiations, the decrease in interest rates, and the use of a more recent mortality table reflecting decreases in mortality rates. Another significant reason for modification of the plans is the 1950 and 1952 Amendments to the Social Security Act and the desire to provide better integration.

Effective in 1951 the maximum annual wage base under OASI was raised from \$3000 to \$3600 and in 1955 to \$4200. This latter change, however, occurred after the revision of the plans of this study. In revising the plans, almost \$\frac{1}{3}\$ of them were designed to take the higher wage base (\$3600) into consideration in the future service benefits; i.e., the formula is more generous for the portion of benefits based on earnings in excess of this amount.

Considerable attention was also focused on providing a minimum benefit, with about 2/5 of such minimums including the CASI benefit as an integral part thereof. Throughout this analysis the term "OASI" relates only to the old-age benefit (payable to the retired worker) and does not include supplementary benefits (for wives and children).

Considering the 157 revised plans together with other retirement plans of the firms involved, the most significant characteristic of the revisions is the increase in benefits at a decrease in cost to employees, or at little or no additional increase. This is all the more impressive since the CASI benefits had been increased appreciably shortly before the plans were revised.

Following is a summary of the more important revisions. The number of plans shown is, in some cases, slightly under-stated since information relating to the provisions of the previous plan was sometimes unavailable:

- (1) Changing from a money-purchase (or pension trust) to a definite benefit type--20 plans.
 - (2) Increasing the rate in the benefit formula--28 plans.
- (3) Guaranteeing a minimum benefit—added in 29 plans and increased in 4 plans.

(4) Deleting or raising the maximum benefit--25 plans.

(5) Changing to a flat dollar-benefit per year of service--7 plans.

(6) Adding or increasing the special disability benefit-9 plans.

(7) Adding a provision for increasing the benefit when retirement is deferred beyond normal retirement age--12 plans.

(8) Eliminating or decreasing the employee contribution rate-34 plans.

(9) Removing the sex differential in normal retirement age--12 plans.

(10) Adding a provision for early retirement at employee election instead of requiring employer consent -- 8 plans.

(11) Adding vesting provisions or providing more liberal requirements--27 plans.

Of the 157 amended plans, some of the major characteristics are as follows:

Definite benefit type--90%.
 Contributory--67%.

(3) Most common eligibility requirement—I year of service and under age 65.

(4) Average employee contribution rate--(a) on lower portion of earnings, 2.5%; (b) on higher portion, 4.2%.

(5) Most common ratio of employee contributions to accruing benefits--2.

(6) Most common future service benefit formula per year of service--1% of first \$3000 of annual earnings; 2% on excess.

(7) Average future service benefit rate per year of service, among plans basing benefits on earnings and length of service--(a) on lower portion of earnings, 1.1%; (b) on higher portion, 1.8%.

(8) Plans with vesting--93%.
(9) Most common vesting requirement--5 years participation.

(10) Future service benefits integrated with OASI--83%.

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C. Type of Plans

A number of changes occurred in the type of plan according to its basic structure with the money-purchase type most significantly affected. The changes indicate a trend away from this type; 17 of the 33 plans formerly on a money-purchase basis changed to the definite benefit basis. This is of particular importance to the older employees.

Another revision noted is the change of 3 noncontributory plans to a contributory basis, with the employees sharing the cost. This is the reverse of 4 other plans that changed from contributory to noncontributory, thereby eliminating employee contributions. One of the latter was further liberalized by adding a supplemental noncontributory portion covering earnings above \$3600, while 2 others were expanded to include all earnings—1 had previously covered the first \$3000 and the other those above that amount.

The study includes 14 plans that now provide a basic noncontributory plan supplemented by a contributory portion. In 4 of these all earnings formerly were included under a contributory type of plan. As revised, 2 provide a noncontributory portion covering all earnings. with 1 of them excluding the first \$1800 of earnings under the contributory portion. The other 2 plans eliminated employee contributions on earnings below \$3600. In 2 plans that were contributory, but limited to earnings in excess of \$3000, a noncontributory portion was added applicable to all earnings in 1 plan and to those below \$3600 in the other. Employee contributons on earnings above \$3600 are now required under 2 other plans that previously were noncontributory for all earnings. Except for 1 plan that raised the point of integration from \$3000 to \$3600, the 6 remaining plans made no change in the previous provision -- 4 are partial contributory with employees contributing at the higher level. By contrast another plan is partial contributory in the opposite direction in that contributory benefits are provided on the first \$3000 and noncontributory benefits on the excess amount. The sixth one provides both a contributory and noncontributory type applicable to all earnings.

Although 11% of the plans were changed from money-purchase to definite benefit, the amended plans still include proportionately twice as many of the money-purchase type as were in the earlier study of 346 plans.

After amendments, plans show relatively fewer of the contributory type than in the earlier study (67% as compared with 72%), while proportionately the noncontributory plans remained the same (25%). Percentage-wise there are nearly three times as many of the partial contributory type among the amended plans as in the earlier study.

The effect of the amendments together with a comparison of the types of plans included in the two studies may be summarized as follows:

Type of Plan	Current	Study	Previous
	Before Revision	After Revision	Study
Definite benefit	79%	90%	95 %
Money purchase	21	10	5
Contributory Partial contributory Noncontributory	71%	67%	72 %
	3	8	3
	26	25	25
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D. Eligibility

The provisions relating to eligibility for participation in the plans were amended in 43 group annuities—20 were liberalized, 16 became more restrictive, and 7 were made more stringent in some respect and less so in others.

Of the 43 plans with revised eligibility qualifications, 8 increased or added a service requirement, while 11 either decreased or eliminated such a requirement. There were 6 that reduced or eliminate the minimum entrance age, while 14 increased or introduced a minimum age. The maximum age at which an employee might enter the plan was increased (or eliminated) in 4 plans (12 plans for women) and was decreased (or added) in 10 plans (11 plans for women). No two plans made identical changes. The effect of the revision in service requirements is shown in the following table:

Years of Service	Number of	
Requirement	Before Revision	After Revision
None	1.	14
1	25	24
2	<u>1</u> 4	5
3	1	5
5	12	5
Total	43	43

The effect of the changes in minimum age provisions is as follows:

Minimum Age	Number o	f Plans
Requirement	Before Revision	After Revision
None	22	12
25	3	10
30	12	16
Othe rs	6	5
Total	43	43

Thus more weight has been given to an age requirement, while the overall effect has been toward a lower period of service for determination of eligibility for membership. All except 16 of the 157 plans now require 1 or more years of service, with 1 and 5 years predominating (65 and 37 plans respectively). A few plans vary the service requirement according to age.

There are 82 plans with a minimum entrance age requirement, age 30 being the most common (48 plans), followed by age 25 (22 plans) and age 35 (8 plans). The remaining 5 plans require a minimum age of less than 25. The most typical age beyond which membership is not permitted is 65, appearing in 73% of the plans.

By far the most common entrance qualifications among the 157 plans as revised are:

l year of service, maximum age 65 -- 25 plans l year of service, minimum age 30, maximum 65 -- 18 plans

As shown in the following tables the 157 amended plans tend to have shorter service periods for participation than the 346 new plans of the previous study and also a somewhat lower minimum-age requirement:

	Number of Plans				
	Current				
Service Requirement	Before Revisions	After Revisions	Previous Study		
None	6%	10%	6%		
1	40	41	29		
2	10	10	11		
3	13	15	21		
4	0	0	1		
5	31	24	32		
Other	O	0	<u>a</u> /		
Total	100	100	100		

a/ Less than $\frac{1}{2}$ of 1%.

The distribution of plans according to the minimum age required for participation is as follows:

	Current Study		
Servi ce	Before	After	Previous
Requirement	Revision	Revision	study
None	52%	48%	46%
25 and under	12	17	17
30	29	30	29
35	7	5	8
Total	100	100	100

In addition to the age and service requirements, 45 of the 157 plans limit participation to salaried employees and 3 to hourly workers. Membership is also limited to those with annual earnings in excess of \$3000 in 4 plans and of \$3600 in 2 others. Most of the firms represented in these plans are known to have separate plans for the excluded groups.

Of plans limited to salaried employees under the group annuity portion, 37 made no change in the salary status requirement, 4 of which continued to cover only employees with salaries in excess of \$3000. Coverage was expanded in 3 others to include those with salaries below \$3000. Two plans that both before and after amendmen included hourly and salaried workers, but which limited coverage to those earning more than \$3000, removed the limitation. Another contributory plan, introduced a limitation at the \$1800 level, but added a noncontributory portion covering all employees and basing benefits on all earnings.

A further restriction of coverage relates to the union or nonunion affiliation. Only employees in nonparticipating union status are covered under the insured portion in 12 plans. There are 3 plans that limit membership to union members.

When combined with other retirement plans of the firms involved, the 157 amended plans show about the same relative number limiting coverage to salaried employees as was found in the earlier (346 plans) study--about 14%. However, as noted above, the amendment reveal a trend toward limiting the group annuity portion to salaried employees (sometimes covering only earnings above \$3000 and \$3600), with a basic noninsured plan covering all employees or in some cases hourly employees only.

E. Retirement Age

Normal Retirement

The provision relating to the normal retirement age was amended in 16 plans, with comparable data for 10 other plans not available. The amendments affected both men and women in only 2 of the plans; in these a definite normal retirement age of 65 has been set, replacing in each case a sliding scale beginning at age 65. Men only were affected in 1 plan, their normal retirement age being reduced from 68 to 65, the same as for women. The 13 remaining plans amended the normal retirement age for women—11 removed an age differential by raising the age for women from 60 to 65, or equivalent to that for men. The other 2 plans now provide a normal retirement age of 65 for men and 60 for women—one narrowed the differential by raising the age for women from 55, and the other added a differential by reducing the normal retirement age for women from 65.

All but 2 of the 157 amended plans set age 65 as the normal retirement age for men, with 25 of them retiring women 5 years earlier. In 5 plans there is an auxiliary feature—4 provide for normal retirement on a sliding scale—from age 65 to 70 (age 65 constant for women in 1 plan) according to the age at entrance; the fifth provides benefits at attained age 65 upon completion of 15 years of service. There are 3 others that provide normal retirement at age 65 under the contributory portion but combine this age with a period of service (10 years in 1 plan and 15 years in 2 plans) under the non-contributory portion which has been added. The normal retirement age under the 2 excepted plans is 60 and 61, respectively.

The principal effect of the amendments as regards normal retirement age has been to remove the sex differential. Of those where a comparison is possible (147 plans), 25% had a differential before as compared with 18% after amendments. Considering the 157 plans as amended, 17% have a sex differential in the normal retirement age. This is still somewhat higher than among 346 new plans adopted during the period 1946-50 where the ratio was only 12%.

Early Retirement

The early optional retirement provision was amended in 34 plans (no comparable information is available in 13 others that now have such a feature). The amendments resulted in liberalization in all except 10 plans; restrictions in 6 of these were the

result of changing the age condition for women to agree with that for men. It is quite significant that a provision whereby the employee may retire at his election rather than with company consent was added or liberalized in 12 plans. In 4 of these plans the condition under which an employee might retire before normal retirement at his own option was liberalized, while in the remaining 8 plans employer consent for early retirement was previously required, but now such retirement is permitted at the employee's option. Early retirement at company consent is generally conditioned only on attainment of a given age (usually 10 years before retirement age), whereas if it takes place at the election of the employee, both a given age and service requirement are imposed. The most typical age requirement under the employee election feature is 55 (10 plans), while the most common service period is 20 years (5 plans).

In addition to the changes in the manner in which employees are permitted to retire early, 27 plans revised the age or service requirements (changes in 5 other plans relate to disability only). The revision followed a corresponding change in the normal retirement age in a number of plans, the purpose being to eliminate the difference in retirement ages as between men and women. The removal of the differential was achieved by raising the early retirement age for women from age 50 to 55 in 6 plans, and lowering the age for men in 4 plans-from 55 to 50 in 1 plan, from 60 to 55 in 2 plans, and from 58 to 55 in the remaining plan. The result in 1 of these plans permits of early retirement 15 years before normal retirement age. One plan introduced a differential through lowering both the early and normal retirement age for women by 5 years.

Disability is another criterion for early retirement—7 plans introduced disability as a new feature and 1 liberalized a former provision. However, 2 of these plans previously had no specific requirements. Disability is now the only condition for early retirement in 2 plans, 1 of which imposes 15 years of service. In 6 of the 7 plans introducing disability as a criterion, conditions are less stringent than for early retirement due to other causes. Under 3 plans, the age requirement of 55 is retained, but the service requirements of 10, 20, and 25 years respectively are waived, while 3 other plans waive age requirements.

Not included in the following table are 2 plans that added a basic non-contributory plan under which early retirement is conditioned on age and service in one, and on disability only in the other. The most important revisions may be classified as follows (a few plans appear in more than one category):

Revision	Number of Plans
Addition of provision for early retirement without employer's consent	8
Liberalization of requirements for early retirement: Without employer's consent With employer's consent	14 14
Removal of age differential between men and women	lo
Addition of or increase in age and/or service requirement for both men and women	4
Addition of or liberalization of disability provision	8

After revision, 130 plans of the study (83%) provide early retirement for men at age 55, with 21 of them also requiring a specified period of service--ranging from 5 to 30 years. There are 23 plans (15%) that permit women to retire earlier than men--20 designating age 50, 2 age 45, and another age 55 (age for men varies to age 60). Among the 109 plans using age 55 as the only condition for early retirement for men (with employer consent), 7 either raised the age condition to age 60 or added a period of service if the employee elects retirement.

Of the 27 remaining plans (those having a requirement for men other than age 55), 10 have no specified age or service conditions that must be satisfied for early retirement, 4 require only a period of service, 8 permit early retirement prior to age 55--7 specify age 50 (45 for women in 2 plans), while the 8th plan uses age 51--, and in the remaining 5 plans, early retirement is provided at age 60, with 2 of them combining it with 20 years of service. Among the 10 plans with no specific requirements, 2 impose an age condition (55) and 1 an age and service condition (age 55 with 10 years) if early retirement takes place at the option of the employee.

Disability is present as a condition of early retirement in 21 plans of the study (13%). In 6 of them, any early retirement is contingent upon disability, 1 of which requires completion of 15 years of service and 4 others attainment of a specified age--55 in 3 plans (50 for women in 1) and age 50 in 1 plan (45 for women). Of the remaining 15 plans, disability is an alternate provision with conditions varying. An age 55 condition is waived in event of disability in 6 plans, although 2 of them then have a 5-year service period. In 2 plans, a 10-year participation requirement is waived in case of disability, while 1 plan reduces a 30-year service period to

10 years in such event. Under 5 plans, where early nondisability retirement is contingent upon fulfilling both an age and service requirement, the age factor is waived in case of disability in 2 plans and the service condition in the 3 others. In addition to the 21 plans discussed here, 9 plans provide a special disability retirement benefit.

Early retirement is conditioned upon the employer's consent in 118 of the 157 plans (75%). Under 39 plans, early retirement is permitted at the employee's option, in 17 of which the conditions are liberalized if the retirement is with company consent.

Of the 157 plans of this study (amended between 1950 and 1954) 25% provide early optional retirement at employee elections. This is relatively more than twice the corresponding proportion (12%) for 346 previously analyzed plans (initiated between 1946 and 1950). There is still a sex differential in the early age requirement in 15% of the plans—as compared with 20% before revision. The corresponding proportion in the previous study was 11%.

Deferred Retirement

The provision relating to retirement deferred beyond the normal annuity date was amended in hh plans (no comparative information is available in the others that now have such a feature). Of these, it no longer make any mention of deferring retirement, 10 added the provision, and 23 revised a former one. Among the 33 plans of the last two groups, 7 now designate a compulsory retirement age--70 in 5 plans, 68 (women 65) in 1 plan, and 66 in another. At least 3 plans have added an automatic retirement age later than 65 (68 in 2 plans and 66 in another) after which age approval by the company is necessary for continued employment.

Most of the revisions were with respect to the time when benefits begin in case of deferred retirement and to the amount then payable. When retirement is deferred, the tendency is to postpone the payment of benefits until actual retirement (or to a specified age, if earlier) and then to increase the benefit above that which was payable at the normal retirement age. All but 3 of the plans amending this provision defer benefits, with half of them increasing the benefit amount.

The previous practice regarding the deferred retirement age is not always given. Some of the known changes in age provisions are as follows: Among the 10 plans that added a deferred retirement provision, 2 provide for compulsory retirement at age 70 and another at age 68; the others do not indicate any compulsory or automatic retirement age, but deferment is with employer consent. In 4 plans that formerly provided deferred retirement with consent of the employer, a compulsory retirement age was added (age 66 in 1, and age 70 in 3 plans). In 1 other plan, an automatic retirement age of 66 was introduced.

Of the 10 plans that added the deferred retirement provision, 2 pay the immediate benefit at the normal annuity date and 8 postpone payment to actual retirement. In 7 of this latter group, the deferred benefit is increased but is payable not later than a certain age--70 in 5 plans, 66 in 1, and 68 (women 65) in the other. The last one also continues contributions to this later age.

With 1 exception, the 23 plans revising the provision defer the benefit (1 defers only a portion) to actual retirement, with 9 restricting payment to not later than a specified age (70 the most common). When retirement is postponed, there is no increase in the benefit in 9 plans, while 10 now provide for an increased amount. In 1 plan the annuity derived from the employee's contributions is payable at the normal retirement age and that derived from the employer's contribution (with no increase) is payable at actual retirement. The remaining 2 plans deferring the benefit permit the employee to elect the immediate benefit at the normal annuity date or an increased amount at actual retirement, or at age 70, if earlier. The excepted plan continues to provide that the benefit begins at the normal retirement age, but adds an automatic retirement age (68).

Previously, all but 6 of the 23 plans revising the deferred retirement provision provided for benefits to begin at the normal retirement age. Under h plans, benefits were postponed until actual retirement, only 1 of which increased the benefit. Another plan permitted the employee to choose either an immediate benefit at the normal annuity date or an increased amount at actual retirement or at age 70, if earlier. Under the remaining plan, the normal benefit was payable at the normal retirement age and, upon approval by the company board of directors, employer and employee contributions could be continued to actual retirement at which time a supplemental annuity would be purchased to provide additional benefits.

of the 157 amended plans, 107 definitely make provision for deferred retirement (68%) while 50 (32%) make no mention of it. When retirement is deferred beyond the normal age, employment usually is continued on a year-to-year basis with contributions generally discontinued at normal retirement age. Among the 107 plans with a deferred retirement provision, h3 always begin payment at normal retirement age (of these, 9 mention offsetting wage adjustment). Under 56 plans, the benefit is always deferred beyond the normal retirement age while employment is continued (32 limit the deferment period--most commonly to age 70); 30 such plans increase the amount above that payable at the normal retirement age, while 26 pay only the normal benefit. Under the remaining 8 plans, the employee who continues in service beyond normal retirement age has the choice of the normal benefit beginning at normal retirement age or an increased amount beginning at actual retirement; in 1 such plan the increase relates only to the future service portion.

Relatively fewer of the books of this study (68%) than of the previous one of 346 plans (79%) mention deferred retirement provisions. However, where it is mentioned, the tendency is not only to postpone the benefit payment to actual retirement or to a specified age, if earlier, but to increase the amount above that payable at the normal retirement age. The average original date of the amended plans is considerably earlier than that of the previous study, which may account for the lower percentages among the amended plans. The following table compares the distribution according to method of payment among plans permitting deferment:

	•	Amended	Plans	Previous
***************************************	Category	Before	After	Study
(1)	Benefit begins at normal retirement age	63%	40%	48%
(2)	Benefit deferred and not increased	16	24	42
(3)	Benefit deferred and increased	14	28	9
(4)	Employee option as between (1) and (3)	7	8	1

F. Employee Contributions

The provisions relating to employee contributions are known to have been amended in 56 plans. The principal types of revisions in employee contributions are changes in the rate, shifts in integration points, revisions in the amount of earnings subject to contributions, and changes in the type of plan. A significant criterion for measuring employee contributions is the relation thereof to accruing future service benefits. Among the 56 plans amending this provision, the most common practice is to establish an employee contribution at 2 times the rate at which benefits accrue. As an example a plan calling for a contribution rate of 4%, would provide a benefit of 2% of earnings for each year of service. Formerly, the most common ratio was $2\frac{2}{3}$. This means higher benefits per unit of employee contribution, with a larger proportion of the premium paid by the employer.

Employee contributions were decreased in 34 plans (4 plans eliminated them entirely, while another 4 partially eliminated them). The employee contribution rates were increased on some or all of the earnings in 13 plans, and 5 other plans that previously were non-contributory imposed contributions. Among the latter are 2 plans that require contributions on only the higher portion of earnings, while basing benefits on all earnings. Under another plan, the employee contribution rates were decreased on the first \$1,800, with an increase on earnings above this amount. Finally, there are 3 plans with changes differing from those referred to above.

The overall effect has been to lower employee contribution rates—5% of the amended plans, as compared with 15% before revision, apply a rate of 4% or more to the first \$3,000 (or \$3,600) of annual earnings. On the excess amount, 24% of the amended contributory plans use a rate equal to 5% or higher, in contrast with 33% before revision.

In the analysis of revisions in the employee contribution rate, plans have been classified according to the change made in the future service benefit rate (Table 1). To round out the picture, there are 47 plans that changed neither the employee contribution nor future service benefit rate.

Table 1

PLANS REVISING EMPLOYEE CONTRIBUTION RATE CLASSIFIED
BY CHANGE IN FUTURE SERVICE BENEFIT RATE

Employee Contributions	Future Service Benefits	Number of Plans
Decreased	Decreased	. 7
Decreased	No change	1
Decre ased	Increased	12
Decreased	Varying change	4
Decreased	Changed to definite benefit	6
Increased	No change	1
Increased	Increased	8
Increased	Changed to definite benefit	4
Eliminated	No change	1
Eliminated	Increased	1
Eliminated	Changed to definite benefit	2 ;
Introduced	Increased	4
Introduced	Changed to definite benefit	1
Miscellaneous		
Total		56

Of the 7 plans that decreased both employee contributions and future service benefits, the decreases were proportional in 5. In 3 of these the reduction was merely because of a change in the point of integration and related to only that portion based on annual earnings between \$3,000 and \$3,600, thereby recognizing the 1950 Social Security amendments. A plan that formerly paid benefits with respect to all earnings, but was contributory on earnings above \$3,000 only, now integrates at \$1,200 and \$3,600. Employee contributions on earnings between \$3,000 and \$3,600 were eliminated and future service benefits based on the portion below \$3,600 reduced. In the remaining plan, a proportionately greater decrease was made in the contribution than in the benefit rate.

Among the 12 plans that decreased the employee contributions while increasing the benefits are 3 in which the decrease reflected a change in the point of integration but which at the time increased the benefit formulas throughout. Another added benefits with respect to the first \$3,000 and eliminated contributions except on earnings above \$3,000. Under still another plan, noncontributory benefits covering all earnings were added, with the contributory portion changed to cover only earnings above \$1,800; no change was made in this portion in either contribution or benefit rates as applied to earnings above this amount.

Two of the 4 plans that reduced employee contributions with varying changes in benefit rates are money-purchase plans. Previously, the employee rate was 5%, with equal contributions from the employer; as revised the employee contributions vary from 1 to $2\frac{1}{2}$ %, depending on salary, while the employer rate now varies from $5\frac{1}{2}$ % to 10%. The effect is to reduce the contributions for employees in the lower brackets thereby providing a form of integration with social security. The other 2 plans changed to partial-contributory. Under one the effect is a decrease in the benefits for those earning between \$3,100 and \$5,100, although there was an increase in contribution and benefit rates on the portion of earnings above \$3,600. The other reduced benefits based on the portion of annual earnings between \$1,800 and \$3,600, with an increase on the excess.

Where the type of plan is changed from the money purchase plan to the definite benefit type, it is not possible to make a categorical statement as to the change in future service benefits; the result is less variation in accruing benefits as between the

older and younger workers. One of these plans raised the point of integration to \$3,600 and reduced the employee contributions on earnings between \$3,000 and \$3,600, adding a noncontributory supplement based on service only. Another that still bases contributions and benefits on earnings above \$3,000 reduced the employee contribution rate from 5% to 4%. In all, 11 plans in changing from the money purchase to the definite benefit type made a change in the employee contribution rate. The remaining plan continued the same rate as under the money-purchase contract.

Of the 8 plans that increased both the employee contribution and future service benefit rates, 5 made proportionate increases. In the other 3, contributions were raised relatively less than benefits. The plan that increased the employee contribution rate but made no change in the benefit formula now uses a slightly higher rate than formerly on annual earnings between \$1,800 and \$3,000 (to agree with the corresponding higher percentage used in the benefit formula); the ratio as between contributions and accruing benefits is now uniform throughout.

Two of the h plans that changed from contributory to non-contributory also changed from the money-purchase to the definite benefit type. Another made no change in the benefit formula, while the fourth extended the plan to cover those earning below \$3,000 with flat dollar benefits per year of service for all.

Under 3 plans that changed from noncontributory to contributory, future service benefit formulas were increased in one by 25%, in another by 50%, and in the third by 567% on the lower portion and by 167% on earnings in excess of \$3,600. Of 2 plans changing from noncontributory to partial-contributory, one changed from pension trust to a definite benefit type, while the other increased the benefit formula.

Among the 4 plans classified as miscellaneous, the effect of the revisions in one was to decrease the contribution rate for those earning less than \$2,400, with an increase in the rate for those earning in excess of this amount; the future service benefits were increased throughout. The second plan was liberalized to cover earnings below \$3,000, with employee contributions on this portion of earnings a flat amount varying by attained age. This amount doubled, tripled, and quadrupled for each additional 10 years in attained age beyond age 40. The third plan was extended to cover earnings above \$3,000, with both a lower employee contribution rate and future service benefit rate on such earnings as compared with those on the first \$3,000-an unusual relationship (integration in reverse). Finally, one plan that changed from money purchase to definite benefit decreased the contribution rate on the first \$3,600 by 25% and increased it by $12\frac{1}{2}\%$ on the excess.

Not included in the 56 plans are 2 money-purchase plans that changed the incidence of employer cost for women. Formerly, the contributions were used to buy annuities deferred to age 65. At retirement of women before age 65 (normal retirement age 60), the employer made a single additional contribution to offset the amount by which the benefit would be discounted due to the earlier retirement. The revised plans call for an increase in the regular employer contribution such that the benefits will be funded by age 60. No change occurred in the employee rate, which remains the same for men and women.

In this study of 157 revised plans, 75% call for employee contributions. This is relatively the same as among new plans of the period 1946-50. Although the most frequently used contribution formula--2% of the first \$3,000 (or \$3,600) and 4% above--remains unchanged, the proportion of amended plans using it is somewhat lower than in the earlier one--16% as compared with 19%. Under the total plans after revisions, the average rate is slightly lower on the first \$3,000 of annual earnings than among those of the earlier study--2.5% as compared with 2.6%, while for earnings above it is slightly higher--4.2% as compared with 4.0%. However, among the plans that revised the contribution rates, the average on the higher portion is now 4.0%, or the same as in the earlier study.

G. Retirement Benefits

This section covers changes in normal retirement benefits, with future service and past service benefits treated separately. Future service benefit changes are considered separately for the contributory and for the noncontributory plans. Separate subsections deal with minimum, maximum, and disability benefit provisions.

Future Service

Of the 157 plans of this study, 117 were contributory or partial-contributory (after revision). Among these, 59 (38%) made changes in the normal future service benefit provision. There was no change in this provision under 50 contributory plans, 3 of which reduced the employee contribution rate. Under 8 plans the previous future service formula is not known.

In the discussion of changes in benefits, reference is made to the previous section on employee contributions. Of the 56 plans shown in Table 1, 53 made changes in the future service benefit. In addition to these plans that revised both employee contributions and future service benefit rates, 6 other contributory plans revised the benefit formula. Three of the plans were changed to a definite benefit type and the remaining 3 made an increase in the benefit formula.

After amendments, there were 40 plans of the noncontributory type. Of these, 15 revised the future service benefit formula, and 3 others changed to a definite benefit type, resulting in a relative—ly greater advantage to the older employees. Among the 15 plans, one formerly contributory and relating to annual earnings above \$3000 now provides all employees with a flat benefit per year of service, regardless of earnings. The future service benefit formula was liberalized in all except 2 of the remaining 14 plans. One of the 2 excepted plans made a 25% reduction in the formula but increased the monthly minimum benefit (including OASI) for each year of service by \$.15 in recognition of the 1950 amendments to the Social Security Act. The other made a decrease in benefits based on the first \$3600.

In recapitulation, the results of the revisions may be classified as follows:

Type of Change	Contribo Number		Noncontri Number	butory 3	All P Number	
None	50	43%	17	43%	67	43%
Benefit increased	31	26	12	30	43	27
Benefit decreased	7	6	2	5	9	5
Varying	4	3	1	2	5	3
Changed to definite benefit	17	15	3	8	20	13
Previous formula unknown	8	_7_	5	12	13	_9_
Total	117	100	40	100	157	100

Of the 144 plans with known previous future service benefit formulas, 77 (53%) made revisions. The plans with varying changes increased the benefit based on the upper portion of earnings while slightly decreasing the remainder. A change to a definite benefit type usually resulted in increased average benefits. It may, therefore, be stated that in only 9 (12%) of the 77 plans that revised the provision were the average benefits decreased, or in 5% of the 157 plans. Furthermore, several of the 9 reduced only that portion of the benefits based on earnings between the former and later points of integration—\$3,000 and \$3,600, the result of changing the point of integration, in line with the OASI 1950 amendments. Thus, although the amendments to the Social Security Act increased the benefits under that program appreciably, the benefit revisions in the plans of this study, for the most part, provide a further increase.

In comparing future service benefit rates before and after the changes, plans that were previously not of the definite benefit type and those that changed to a flat dollar amount per year of credited service have been excluded; also one plan with a very low rate before the change (3/20% on the first \$3000 which was increased by 567%), since its inclusion would result in distortion. One plan that previously covered only earnings above \$3000 added a benefit based on the lower portion, while the reverse was true of another; that is, the plan was extended to cover earnings above \$3000 -- these plans are also omitted in the comparisons. Increases were made on the lower portion of earnings only in 10 plans and on the upper portion only in 21 plans. Among plans that increased rates on the lower portion (including those that made an increase on both portions), the increase ranges from 122% to 100%. The range of increase on the upper portion varies from 25% to 100%. The most common increase is 33 n each portion.

Among the 157 plans are 4 that still cover only earnings above \$3000. At least 2 of these have a noninsured plan for all employees. Only 2 plans are limited to earnings above \$3600, one of which has a noninsured plan for other employees. The other covers railroad employees and is thus supplementary to benefits from the railroad retirement system.

The most common formulas among the 117 contributory plans are as follows:

Formula	Number of Plans	Percent of 117 Plans
1% to \$3000 2% above	18	15%
#% to \$30001 % above 1% to \$30001 % above	10 7	9 6
1% to \$3600 2% above	6 %	5

Among the 40 noncontributory plans, the most usual formulas are:

Formula	Number of Plans	Percent of 40 Plans	
1% to \$300012% above 1% to \$36002% above	5 4	12 % 10	

Considered as a whole, the following appear most often

Formula	Number of Plans	Percent of 157 Plans
1% to \$3000 2% above	20	13%
1% to \$30001½% above	12	8
1% to \$300012% above	11	7
1% to \$3600 2% above	10	٠ 6
14% to \$3000 2% above	7	4

Only 25 of the 157 plans now apply a uniform benefit rate for future service (that is, apply the same formula to all earnings). Included are 3 that provide for a flat benefit per year of service with no supplementary portion. The amendments have resulted in relatively fewer plans with uniform formulas as shown by the following table:

Type of Plan	This Study		1946-50
	Before	After	Study
Contributory	20%	13%	22%
Noncontributory	30	23	50
All Plans	23	16	31

The effect of the changes under definite benefit plans that base benefits on earnings and credited service is shown below:

Туре	_	Service Formula of Earnings After	<u>Increase</u>
	Applicable to Lower	Portion of Earnings	
Contributory Noncontributory	• 92% • 98	1.14% 1.19	24 % 21
All Plans	•94	1.15	22
	Applicable to Upper	Portion of Earnings	
Contributory Noncontributory	1.55% 1.48	2.00% 1.94	29% 34
All plans	1.52	1.98	30

In deriving the averages, no distinction has been made between the plans integrating at \$3000 and at \$3600. Since a number changed to the upper point, the percentages of increase on the lower portion of earnings are slightly overstated. It seems quite significant that among plans revising benefits, the average future service benefit formula was made 22% more liberal as related to the lower portion of earnings and 30% more liberal on the higher portion. In this connection it may be noted that the 1950 amendments resulted in a larger relative increase on the first \$1200 of earnings than on the earnings between \$1200 and \$3000 and that such increases resulted in increasing the variation in the benefit, as a percent of earnings, between the lower paid and higher paid employees.

The following table relates to the total definite benefit plans that base benefits on earnings and credited service, including those that made no change in the future service benefit formula:

		uture Service Forcent of Earning	
Type of Plan	Before	After	1946-50 Study
Appl	licable to Lower P	ortion of Earnin	ıg s
Contributory Noncontributory	•96% •86	1.06% 1.06	•98% •95
All Plans	•93	1.06	•97
App	Licable to Upper Po	ortion of Earnin	gs
Contributory Noncontributory	1.58% 1.47	1.82% 1.59	1.52% 1.33
All Plans	1.55	1.76	1.48

The average increase in formula applicable to the lower part of earnings for definite benefit plans (revised and unrevised) was only 14% as against 22% for plans that changed; the corresponding ratios relating to the excess earnings are 14 and 30%, respectively. Strangely, the noncontributory plans that revised the formula already had more generous formulas with respect to the lower portion of earnings than those that were unchanged. The present formulas for those that made revisions average considerably higher than for the plans as a whole—about 82% on the lower portion of earnings and 12% on the excess.

After amendments, the average rate on the lower portion of earnings is about 9% higher than the corresponding rate among similar plans adopted during the period 1946-50, while that on the higher

portion is 19% higher. The ratio between the average rate on the higher portion is about $1\frac{1}{3}$ times that on the lower portion. This corresponds with $1\frac{1}{2}$ times among the new plans of 1946-50. The increase in ratio probably reflects the 1950 increase in OASI benefits (based on only the lower portion of earnings).

Before revision, only one of the 157 plans provided a flat monthly benefit per year of credited service (increased from \$1.50 to \$1.80). Seven others (probably union-negotiated) now have a basic plan of this type, 4 of which provide for a supplementary amount. The formulas are given below:

<u>Plan</u>	Monthly Amount per Year of Credited Service	Maximum Credited Years	Supplement
1	\$1.00	No limit	None
2	1.80	25	None
3	2.00	30	None
4	4.002/	30	None
Š	1.50	30	Above \$3600
6	1.75	30	All earnings
7	2.00	No limit	Above \$3600
8	<u>b</u> /	No limit	Above \$3000

a/ Reduces to \$3.50 after 25 years; benefit includes Social Security old-age benefits.

In all except plans 1 and 8 the basic benefit is provided entirely by the employer. The supplement is on a noncontributory basis only in plan 5.

While money-purchase plans have been included in the previous discussion, an over-all treatment may be of interest. Of the 16 plans that remain this type. 8 made no change in the contribution rates and hence no change in benefits. Information on former rates is not available for 2 plans, while in the remaining 6 plans, changes occurred. Two plans raised the employer rate for women only, accompanied by the removal of additional benefits previously provided by the employer during the period of retirement between ages 60 and 65. In another plan, an additional # of earnings was added to both employee and employer contributions. Two others made no change in the total contribution rate, but the employer assumed a portion of the former 5% employee contribution, varying from 4% on the lowest portion of earnings to 21% on the highest, thereby effecting a slight increase in monthly benefits (since the employer contribution is used to purchase an annuity with no death benefits). In the 6th plan, where the contribution rate formerly varied by age, the new formula calls for employee contributions of 13% of earnings regardless of age, resulting in an average benefit increase of about 12%.

b/ For service before age 40 amount is \$.35, increasing by \$.35 for each successive 10-year age group up to age 60; for ages 60-64, it is \$1.40.

Of the 20 plans that changed to the definite benefit type, 17 had been money purchase plans. This change reduced the differential in the future service benefit between those entering at a relatively high age and those entering at a lower age. Two of these now base benefits on the average earnings during the last 10 years of service. In each case the formula includes OASI—under the first, the formula is 13% of final earnings times years of service (maximum 25); under the second, a noncontributory portion provides 1% of final earnings times years of service, with the contributory portion adding 1% of current earnings above \$3600 for each year of credited service.

In addition to changes in the future service benefit formulas, a number of plans have added a noncontributory supplement with respect to elapsed future service (in effect making a portion or all of the increase in future service rates retroactive). In a few plans such benefits have been extended to cover the eligibility period.

Past Service

The provision relating to benefits for service rendered prior to the establishment of the original plan was amended in 40 plans (25%). With 1 exception, all of these liberalized the benefit. The increase is generally in the form of a supplementary annuity, with benefits computed retroactively for all or a portion of prior service. About 71% made no change in the previous provision, while 4% (6 plans) continued to make no provision for past service benefits.

Seven of the 40 plans introduced a basic benefit of a flat amount per year of service (including past service). The additional benefits under the other plans have been effected by various methods, some of which are: the substitution of a higher past service benefit formula, more liberal definitions of earnings or a shift to a later (and generally higher) wage base, the inclusion of periods of service previously excluded, and the raising or removal of the former maximum limitation (annuity and/or salary base). Effective also under a number of plans is the introduction of a minimum benefit based not only on future service but on past service as well; this, however, is not interpreted as amending the past service benefit provision.

Benefits for prior service are provided in 4 revised plans that formerly credited only future service. In several plans, past service benefits are made available to employees who formerly had not elected to join the plan or who had joined and had later withdrawn; however, credit for past service is contingent on the employee becoming a member of the revised plan prior to a specified date. Generally the revised plan indicates that the past service benefit will be at least as high as under the previous provisions.

The effect of increasing the formulas is considerable. The past service benefit formulas applicable to the lower portion of earnings, where amended, average about 90% of the corresponding formulas for future service and on the higher portion of earnings, about 70%. The ratios under the new plans of 1946-50 were 75% and 60%, respectively. As in that study, a larger proportion of the plans have a uniform past service formula than is true of future service formulas.

Minimum Benefits

Unusual interest in providing a minimum benefit is apparent in that 29 (18%) of the amended plans introduced such a feature, while only 4 plans eliminated it. Of the 9 plans with the provision both before and after revision, 4 increased the minimum benefit, 2 made no change in the amount, and for 3 others comparable information of the previous provision is not available. The amendments tend not only to emphasize a minimum benefit, but to include therein the OASI old-age benefits (more recently a tendency to adopt minimums that do not include such benefits has been noted). There is also a trend toward expressing the minimum in terms of dollars rather than relating it to earnings.

In one plan, the minimum monthly benefit (including OASI) after 20 or more years of service was increased from \$100 to \$115 with prorata reduction (both before and after revision) for less years of service. The second plan, having eliminated a sex differential in the normal retirement age, raised the minimum monthly benefit (including OASI) for women from \$50 to \$60, the same as for men. Under the third plan, the minimum benefit after 20 years of service (exclusive of OASI) was raised from \$50 to \$55 a month, with a further \$2 yearly increase to \$65 after 25 years of service. The remaining plan that increased the minimum benefit formerly provided a monthly minimum of \$33.33. exclusive of OASI, after 25 years or more of service; this was changed to \$125 (including OASI), with further increases of \$5 for each additional year to a maximum of \$200 after 40 years of service. The revision also provides for a reduced minimum for service of less than 25 years. the reduction amounting to \$1 per month for each lesser year to a minimum of \$110 with 10 years of service.

After revision, 38 of the 157 plans (24%) provide a minimum benefit. The ratio among contributory plans is 28%; among noncontributory, 13%. In 32 plans a specified period of service (25 years, the most common) is imposed for the highest minimum. The majority of the plans reduce the amount proportionately for less service but generally stipulate a minimum number of years below which no minimum applies. In 32 plans, the minimum is expressed as a dollar benefit, while the other 6 plans relate it to a percentage of earnings (either final or career).

Under 23 of the 38 plans, the minimum includes the OASI oldage benefit. In all but 4 of these, the provision is more or less patterned after that of the early union-negotiated plans, namely, flat dollar amounts dependent upon years of service. The highest monthly minimum ranges from \$100 per month after 25 years of service to \$200 after 40 years, with pro rata reductions for less service. Several plans with the OASI offset in the minimum are of the partial contributory type. In one of these, the minimum relates to the annuity derived from both the contributory and noncontributory portions. In another, it applies only to the benefit provided by the employer's contributions (both contributory and noncontributory portions); this is supplemented by the annuity purchased with the employee's contributions. The minimums under the other plans of this type relate only to the annuity derived from the noncontributory portion, with that purchased under the contributory part being entirely independent.

Two plans that introduced a minimum of \$100 a month after 25 years of service (with OASI offset and with pro rata reduction for less service) also provide an alternative minimum—in one plan, 1% of the final 10-year average earnings times years of service (including OASI) and in the second, \$40 a month (excluding OASI) after 25 years of service.

The 4 plans that do not follow the pattern of the negotiated plans base the minimum (including OASI) on a certain percentage of pay. In 3 of these plans the percentage (2%, 2½% and 2¾% respectively) is applied to the final 10-year average earnings times years of service with a maximum of 20 years in 2 plans and of 15 years in the third. Thus the highest minimum is 40% of final average earnings under the first and third of these plans, and 45% under the second. The fourth plan applies 2% to the total earnings during the period of participation.

The characteristics of the minimum benefit of the 23 plans that include the OASI old-age benefit are summarized in Table 2.

Among the 15 plans providing a minimum annuity independent of the OASI old-age benefit, 10 limit the period of credited service to be used in determining the minimum. The service requirement is generally longer for the highest minimum than that required under the OASI offset type—most typical, 30 years (5 plans). All except 2 of the 15 plans provide a minimum expressed as a dollar benefit, with 10 of them ranging from a flat \$20 a month with no service provision to \$100 a month after 20 years (pro rata reduction for less service). Under 3 plans, the minimum benefit is expressed as a flat

Table 2
PLANS CLASSIFIED BY MINIMUM HENEFIT PROVISION
(Including OASI)

Highest Minimum Monthly Benefit	Yea Highest	rs of Service for	Number of
(Includes OASI)	Minimum	Minimum	Plans
\$60 ,	20	0	7
100a/	25	1-25	ī
ገሴህ.	25	10-25	ī
100°C	25	15-25	2
100	30	1-30	2
105	30 25	15-25	2
115 120b/ 125	20	1-20	1
1200/	25	15-25	1
125	20	15-20	ı
125 _h /	25	10-25	2
125 ^b /	25	15-25	2
150	3 0	1-30	1
200	ΡO	25-404/	2
Miscellaneous /	<u>e</u> /	<u>e</u> /	4
Total			23

a/ Excludes benefit derived from the employee's own contributions. b/ Excludes benefit derived from contributory portion in 1 plan.

d/ l plan further reduces minimum \$1 a month per year of service less than 25 to a minimum of \$110 with 10 years of service.

e/ In 1 plan, minimum is 2% of average annual salary per year of service; in 3 plans it is based on final 10-year average earnings--1 plan applies 22% per year of service, maximum 15 years; the other 2 apply 2% and 2½% respectively per year of service, maximum 20 years.

b/ Excludes benefit derived from contributory portion in 1 plan.
c/ l plan has an alternate of 1% of final 10-year average earnings
per year of service; the second of \$40 a month, exclusive of
OASI, with pro rata reduction for less years of service.

Table 3 PLANS CLASSIFIED BY MINIMUM BENEFIT PROVISION (Excluding OASI)

Highest Minimum		Years of Service	for:
Monthly Benefit	Highest	ProRata	Number of
(Excludes OASI)	Minimum	<u>Minimum</u>	Plans
\$20.00	0	0	2
30.00	20	10-20	1
37.50	3 0	1-30	1
42.50	30	a/	1
60.00		15=30	1
65.00	30 25	b/	1
75.00 100.00 <u>c</u> /	3 0	<u>b/</u> 1 – 30	2
100.00	20	1-20	1
<u>a</u> /	25	1-25	1
<u>e</u> /	15	1-15	1
Miscellaneous /	<u>f</u> /	<u>f</u> /	3
Total			15

- a/ Reduction is \$3.50 for each of the 5 years of service less than 30 with further pro rata reduction for each year less than 25, minimum 15 years.
- b/ Reduction is \$2 for each year of service less than 25, minimum 20 years.
- An alternate minimum is 2% of final 10-year average earnings per year of service, maximum 25 years.
- $1\frac{1}{3}\%$ of final 5-year monthly average earnings in excess of \$100
- per year of service.
 e/ 25% of average monthly earnings above \$250 during the period of participation plus \(\frac{2}{3} \) of such average per year of participation. \(\frac{1}{5} \), \(\frac{1}{5} \), and \(\frac{2}{5} \).00 a month respectively times years of service
- (last plan relates to years of participation).

amount per year of credited service. The 2 remaining plans base the minimum on a percentage of the higher portion of earnings. The characteristics of the minimum benefit in the 15 plans that do not include therein the OASI old-age benefit are summarized in Table 3.

The minimum benefit is taken into consideration in determining the discounted early retirement benefit in at least 9 plans and in calculation of the vested deferred annuity in 4 plans.

Under at least 6 revised plans, qualified employees already retired are eligible for the increased minimum benefit. Likewise, a few plans indicate that the revised minimum is applicable to older employees who had been members of a former plan.

The difference between the minimum amount and the normal benefit is generally provided through a purchased supplementary annuity financed by the employer. However, in some instances direct payments each month are made by the employer.

The significance of the minimum benefit among the 157 amended plans is reflected in a comparison with plans of the earlier study (346 plans). Proportionately 3 times as many of the plans in the present study provide a minimum benefit; also, when there is a minimum, relatively 2.8 times as many provide for an OASI offset (61% as compared with 22% respectively). Minimums are much more prevalent among the contributory plans (28%) than among the noncontributory (12%).

Maximum Benefits

A maximum benefit under a group annuity may be effected by limiting the earnings upon which benefits are based or by imposing a stated maximum amount. Some plans embody both methods.

The provision limiting the amount of annuity that may be credited was revised in 29 plans, resulting in a liberalization, except in 3 plans that newly imposed this type of limitation. In another, a maximum annuity of \$12,000 was substituted for a salary limitation base of \$10,000. Of the other 25 plans that became more liberal, 17 eliminated the maximum annuity provision entirely. A contributory plan that provided a maximum of 60% of average final salary (last 3 years) now excludes that portion of the annuity purchased by the employee's contribution from such maximum; formerly, the plan contained an alternate maximum of \$15,000—now deleted. In 7 plans, the former maximum annuity was increased, such increase ranging from 33% to 150%, with the revised maximums ranging from \$4,200 to \$20,000. Formerly, the variation for this group was from \$3,000 to \$15,000.

Under the 3 plans that added a maximum annuity provision, 1 plan limits it to \$10,000 and the other 2 plans have a maximum of 75% of the highest earnings. In each of these 3 plans, the maximum annuity includes the OASI old-age benefit.

In addition to the 12 plans mentioned above that either added or retained a revised maximum annuity provision, 31 others now have such a limitation. In 22 of these, the maximum annuity remained unchanged, while in 9 others, no comparable information as to the previous plan is available.

Among the 40 plans now providing a stated maximum annual dollar benefit, the most usual is \$12,000 or \$12,500 (10 plans). Before revision, among 47 plans with known maximum dollar amounts, the most common was \$10,000 (7 plans).

Among the 157 plans of this study, 27% of the plans now limit the annuity. This compares with 16% in the previous study of 346 plans. However, 62% of the plans with stated dollar maximum benefits in the present study place the maximum at \$10,000 or above, with \$12,000 the most typical. Comparable figures for the earlier study are 42% and \$10,000, respectively.

The limitation as to the amount of annual earnings that may be credited in determining benefits was amended in 15 plans. The trend was toward liberalization -- 9 removed the maximum wage base (ranging from \$3,000 to \$30,000) and 5 others at least doubled the previous maximum limitation of creditable annual earnings (ranging from \$3,000 to \$15,120). A maximum salary of \$20,000 was newly imposed in 1 plan, while for 2 others now providing a limitation of \$15,600 and \$50,000 respectively, no comparable previous information is available. In general, under contributory plans the maximum base for contributions follows that for benefits. Of interest is a plan that has a maximum base for contributions (\$20,000) but no corresponding base for benefits. This means that noncontributory benefits are given on the very high portion of earnings rather than as on the first \$3000 or \$3600 (usual in partial contributory plans). Among the 17 plans that now limit credited earnings, the average maximum of \$18,820 is 42% higher than the comparable average among plans with known maximums prior to revisions. Relatively fewer plans of the current study than of the previous one restrict creditable earnings (11% as compared with 15%).

In only 5 plans are benefits limited by restricting both creditable earnings and the amount of annuities, no two plans having identical limitations. Among the 157 plans are 54 (34%) that now place a maximum on the retirement benefit—by limiting the earnings base only (7%), by imposing a maximum annuity only (24%), or by both methods (3%). Considering only the 146 plans for which information as to previous provisions is available, the retirement benefit was restricted in 43%, as against 35% of the 157 plans after revisions. These ratios compare with 29% among 346 group annuities initiated during the period 1946-50. As noted above, the maximums among the amended plans tend to be higher than under plans adopted a few years ago.

Disability Benefits

Special provision for early retirement in event of disability is now provided in 27 plans, while 5 others have similar provisions outside of the scope of the group annuity contract. Disabled employees may, of course, be retired under the regular early retirement provisions of a large number of other plans. In such cases the usual benefit is actuarially equivalent in value to the deferred normal benefit. Under 18 of the plans with requirements for disability retirement differing from those of other early retirement, the benefits are on the same basis, that is, are actuarially reduced. In several plans the disabled employee has the option of taking the actuarially reduced benefit or a fully vested deferred benefit.

The remaining 9 plans provide a special disability benefit. In 3 of these a former such benefit was revised. In one, with previous monthly benefit of \$1.50 per year of service (maximum 25, minimum 15), the benefit has been increased to a flat amount of \$50 per month after 15 years of service. In the second, there is added to the regular early retirement benefit a temporary benefit payable until age 65 equal to the estimated OASI old-age benefit. The minimum disability benefit which previously was \$33.33 a month exclusive of social security -- available after 25 years of service -- has been changed to \$110 a month, including social security payable after 10 years of service and increasing \$1 per month for each additional year to \$125 after 25 years of service, with further increases of \$5 a month for each year between 25 and 40 years to a maximum of \$200 a month. The third plan increased the minimum disability benefit from \$25 to \$35 a month, after 20 years of service. There was no change in the regular disability formula as such--1% of earnings times years of service (maximum 40 years); formerly, the wage base was the average of the last 5 years of service, but as revised, the largest of three averages is permitted; (1) final, (2) career, and (3) last 5 years.

Special disability benefits were added under 6 plans. The first provides 1% of the final 10-year average earnings per year of service, actuarially reduced but with a minimum of \$60 monthly; to this is added an actuarially reduced benefit with respect to the supplementary contributory portion applying to earnings above \$3600. Under another, the disability benefit is the same as the normal retirement benefit, but to this is added a temporary benefit to age 65 equal to the estimated OASI benefit (thus 2 of the 9 plans add a temporary annuity payable until age 65, the minimum age for OASI old-age benefits). Another added a temporary disability annuity of \$60 to age 65. Two others pay a minimum benefit of \$50 a month after 15 years of service. The 6th plan merely states that the benefit will be increased if disability is the cause of termination.

H. Vesting

The amendments resulted in revision or addition of vesting provisions in at least 35 plans. Comparative information is lacking for 23 other plans that now provide vesting. Seven plans added the provision as a new feature, and 20 plans liberalized previous conditions. In 7 others, the requirements were made more restrictive; another, in changing from contributory to noncontributory, eliminated vesting of future service credits. Although the tendency of the amendments is to add or shift to a period of participation, service alone or in combination continues to be the most common requirement. A shorter period of service (or participation) is favored, with 62% of the amended group requiring 15 or less years in contrast with 52% prior to revision.

Of the 7 plans that introduced vesting, 3 plans condition it on completion of a period of participation or service and the other 4 on satisfying an age and service requirement.

A period of service and/or participation was increased or added in 6 plans and decreased or removed in 10 others. Age as an auxiliary condition was added in 4 plans and lowered or removed in 5 others.

Three of the 20 plans that liberalized a former provision continued the age and/or service condition, 1 of which liberalized the condition for benefits derived from the portion of earnings in excess of \$3600; another added vesting or past service benefits (previously excluded); and the third increased the rate at which benefits gradually vest. In 3 others the service (or participation) requirement was reduced by half (1 plan to 5 years and 2 plans to 10 years); formerly a service condition was required for vesting of future service benefits only in 1 plan and for an initial partial vesting of both past and future benefits in another. There are 5 plans that were made more liberal by adding an alternative provision, with 2 of them relating only to disability. In 4 of these plans no change was made in the former condition -- l plan based it on completing a period of service which was waived in event of disability; the others conditioned it on age and service, with the former removed and the latter increased under the alternative provision. The fifth plan reduced the age condition under the primary provision but retained the former age and removed the service requirement under the disability alternative.

Partial vesting was introduced in 4 liberalized plans and was revised in a fifth--2 of them made no change in the 10-year service requirement for vesting of future service benefits; as revised a

portion of past service benefits also vests after 10 years, with complete vesting after 20 years. Another retained the former condition for complete vesting (after 20 years of service) but reduced by half the years for initial partial vesting, with service waived entirely in event of disability. Still another plan reduced both the age and service condition for complete vesting and provided a lower age for initial partial vesting of past and future service benefits than had formerly been required for vesting of future service benefits only. Under the fifth plan with partial vesting, applying only to past service benefits, the age condition was lowered (from 55 to 50) for the vesting of both past and future service benefits; an additional requirement of 5 years of service was added for vesting of the latter.

Among the 8 plans that made vesting conditions more restrictive (or eliminated them), all but 2 plans underwent other major changes in the plan itself, such as extending coverage and changing from money purchase to definite benefit. Under 2 plans that became noncontributory, 1 plan doubled the 10-year service requirement, and the other eliminated vesting of future service benefits. Under 3 plans that previously provided vesting after 5 years of participation (or service), 1 plan added 10 years of service to the vesting condition, and the other 2 plans raised the former requirement and added an age condition. Another changed from gradual vesting after 5 years of participation (complete after 20 years) to complete vesting at age 50 after 25 years of service; however, the deferred benefits are now payable at the earlier optional retirement age (55), whereas formerly they were deferred to the normal retirement age (65). In still another plan, the 15-year service requirement was continued, but a 10-year participation requirement was introduced. Under the eighth plan, the former vesting provision (after 15 years of service) still applies to contributions made before the amended date: as revised, an age condition (55) was added for vesting of contributions subsequent to that specified date.

Among the 3h plans that changed the vesting provision (and still provide vesting), the most common qualifications are 10 years of service and 10 years of participation (h plans each).

All but 11 (7%) of the 157 amended plans provide some form of vesting. Among the noncontributory plans, 10% do not provide for vesting, and among the contributory, 6%. In 2 plans benefits vest immediately, and in another on certification of disability. Partial vesting is a feature of 20 plans (13%), with one of them never attaining complete vesting—14 plans vest both past and future service benefits on a progressive basis, while under 6 plans full title to future service benefits is given upon satisfying a minimum requirement, with past service benefits vesting as further conditions are met.

An alternative provision for vesting is provided in 25 plans (16%), of which 6 relate only to termination of employment in event of disability. Although the requirements in the alternative of the others vary considerably, the required period of service is generally decreased or eliminated as age increases.

Disability is present as a condition of vesting in 7 plans. In 1 plan, it is combined with a service requirement of 15 years and in the 6 others it appears in alternative qualifications. Of the latter, one plan waives a 5-year participation period and another a 10-year service period in event of disability. In 3 plans a 10-year service period is reduced to 5 years, while the 6th plan retains an age 55 condition but waives a 20-year service requirement in event of disability. In 5 of the 7 plans, the same conditions apply to early retirement as to vesting. In each case, the benefit is actuarially reduced if taken immediately and in 4 of the plans, employer consent is required for early retirement. Full deferred benefits are provided under the vesting provisions of these plans.

An age requirement must be met for vested benefits in 47 (32%) of the 146 plans with vesting provisions. Attainment of age 40 or less is required in 74% of the plans providing for vesting. The distribution by lowest age requirement is as follows:

Age	Number of Plans	Percent of 47 Plans	Percent of 146 Plans
35 40 45 50 55	1 7 11 15 13	2% 15 23 32 28	1% 5 7 10 9
Total with age requirement	47	100	32
No age requirement	9 9		68
Total with vesting	146		100

There are 69 differing requirements for initial vesting (age, participation, service, or combinations thereof). The most usual are as follows:

Requirement	Number of Plans	Percent of 146 Plans
5 years of participation	18	12%
10 years of service	14	10
10 years of participation	13	9
15 years of service	11	8
5 years of participation; 10 years of service	9	6
20 years of service	7	5
Age 55; 20 years of service	7	5

A slightly lower proportion of the amended plans (93%) than of the 1946-50 new plans (94%) provide vesting. However, full initial vesting is provided by 86% of the amended plans as against 80% of those of the previous study, with gradual vesting less prevalent. Including alternative provisions, a period of service and/or participation only as a condition of vesting, occurs in 57% of the amended plans in contrast with 44% of those in the previous study. An age requirement as an auxiliary provision is used in 32% as compared with 49% in the earlier study. A period of service or participation is thus relatively more important in the amended plans, while attainment of a given age is relatively less so. The amended plans are more liberal with respect to providing an alternative provision, in that relatively three times as many of them have such a feature. Table 4 gives the distribution by type of requirement among the 157 amended plans and the 346 new plans of 1946-50.

As in each of the two previous studies, 5 years of participation with no auxiliary requirement is the most common vesting provision. When a stipulated age is a condition, age 55 after 20 years of service is the most typical of the last two studies. Under the amended plans, including alternatives, 4% include disability as a condition of vesting; this is in contrast with only 1% of plans in the previous study.

Of plans with vesting, nearly all permit a reduced benefit at the early optional retirement date in lieu of a full deferred benefit at normal retirement date.

Table 4
DISTRIBUTION OF PLANS BY TYPE OF VESTING REQUIREMENTS

Type of Requirement	Amended Plans	1946-50 New Plans
Service Only	20%	22%
Participation Only	20	17
Age Only		3
Service and Participation	• 8	2
Service and Age	20	28
Participation and Age	3	9
Service, Participation, and Age	5	7
Alternatives	16	5
Immediate Full Vesting	1.	1
Total with Vesting	93	94
No Vesting	7	6
Total, All Plans	100	100

I. Integration

The maximum wage base for benefit and contribution purposes under OASI was raised from \$3000 (for benefits weighted in favor of the first \$600) to \$3600 (weighted in favor of the first \$1200) of annual earnings as of January 1, 1951. The earnings base was further increased to \$4200 (weighted in favor of the first \$1320) effective January 1, 1955; however, this change is not reflected in the plans of this study. Although the 157 plans were amended subsequent to the effective date of the 1950 Social Security legislation, only 31% (48 plans) use \$3600 as a point of increase in the formula for future service benefits. The integrating features were revised in 54 plans (exclusive of those making integration changes in the minimum and maximum benefits), while in 8 others having such a feature no comparative information of the previous provision is available. In revising this feature, the tendency is toward integration which was added in 13 plans; 12 of these changed from a uniform benefit formula to an integrated one and the other adopted a formula with OASI offset.

Among the 54 plans revising the provision, 43 now apply a higher future service benefit rate on the portion of annual earnings above \$3600 (Table 5). All except 8 of these plans apply a uniform formula to the first \$3600. In 2 plans there is an intermediate increase at \$1200 (the point of change in the OASI benefit formula under the 1950 amendments); 2 plans omit the first \$1200, and 2 others omit the first \$600. An intermediate increase occurs at \$1800 and \$3000, respectively, in the remaining 2 plans.

The 9 plans that amended the formula without recognizing the revised OASI base (\$3600) still increase the future service benefit rate at \$3000, with 6 of them also providing an intermediate increase. Four of these 9 plans previously used a uniform benefit rate both above and below \$3000. Three plans covered only earnings in excess of this amount, and another with "breaks" at \$1200 and \$2000 now also breaks at \$3000. Finally, 1 plan that previously increased the rate at \$3000 now makes an intermediate change at \$1800. A further increase is made at \$6000 in 3 of the plans.

As shown in Table 5, the revisions resulted in extending benefits to earnings below \$3000 in 6 plans that previously covered only earnings above this amount. Of the 13 plans with no previous integration, 8 adopted \$3600 as an integrating point, while 4 increased the benefit formula on earnings above \$3000. The remaining plan changed from money purchase to a definite benefit type with benefits of a flat amount per year of service including OASI.

Under the 8 plans that were not compared because of lack of information as to previous practice, 3 plans use \$3600 as a point of integration, with 1 plan omitting the first \$600 of annual earnings and another covering only earnings above \$3600. One plan has no integrating features, and the remaining 4 plans increase the rate at \$3000--1 plan excludes the first \$900 of annual earnings and 2 plans break at \$1200.

Among the 157 plans as amended, 48 (31%) integrate at \$3600. Of these, 37 plans use a uniform benefit rate to this point; an intermediate change occurs in 9 plans, while 2 others cover only earnings above \$3600. In 78 plans (50%), the benefit formula changes at \$3000; 50 plans apply a uniform formula to this point, 24 plans have an intermediate change, and 4 plans cover only earnings above \$3000. Table 6 summarizes the integrating features before and after revisions.

Integration also appears in the minimum and maximum benefit provisions. After revision, 23 of the 38 plans with minimum provisions included OASI benefits in the stipulated minimum; previously only 4 plans had such an offset. In 4 of the 43 plans which provide a maximum, there is an OASI offset, previously only 1 such plan had this integrating feature.

Relatively more plans of this study (83%) than of the 346 new plans of 1946-50 (69%) provide for integration of the normal group annuity benefits with those of OASI. Also, a higher proportion reflect the weighted OASI formula by changing the benefit rate at a point below \$3000 or \$3600. The distribution by type of integration in the regular benefit under the plans of the two studies is summarized below:

Point of Integration	Amended Number	Plans	1946-50 Number	Plans 2
Changes at \$3000 or \$3600 Changes below and at \$3000 or \$3600 Omits first \$3000 or \$3600 OAST offset in normal benefit Miscellaneous integration Total with integration No integration	87 33 6 2 3 131 26	55% 21 4 1 2 83 17	183 47 5 2 3 240 106	53% 13 1 1 1 69 31
Grand total	157	100	346	100

Table 5
INTEGRATION REVISIONS

Before	After	Number of Plans
Changes at \$3000	Changes at \$3600	20
Changes at \$4000	Changes at \$3600	
Changes below and at \$3000	Changes at \$3600	5
Omits first \$3000	Changes at \$3600	ź
No integration	Changes at \$3600	1 5 2 7
Changes at \$3000	Changes below and at \$3600	2
Changes below and at \$3000	Changes below and at \$3600	2 5 1
No integration	Changes below and at \$3600	1.
Total, revised pla	ans integrating at \$3600	43
Omits first \$3000	Changes at \$3000	2
No integration	Changes at \$3000	1.
No integration	Changes below and at \$3000	3
Changes at \$3000	Changes below and at \$3000	3 1
Omits first \$300	Changes below and at \$3000	1
Changes below \$3000	Changes below and at \$3000	1
Total, revised pla	ens integrating at \$3000	9
Omits first \$3000	OASI offset	1
No integration	OASI offset	ī
(Frand total	54

Table 6
DISTRIBUTION OF 157 PLANS BY FORMER AND REVISED INTEGRATION FEATURES

Before	After		Number cf Plans
Changes at \$30002/	Changes at \$3600b/		32
Changes at \$3600	Changes at \$3600		1
Changes at \$4000	Changes at \$3600		
Omits first \$3000	Changes at \$3600 ,		2
No integration	Changes at \$3600°	•	1 2 8 2 1
No data avzilable	Changes at \$3600c		2
Omits first \$3600	Omits first \$3600		1
No data available	Omits first \$3600		1
Total plans integrating	; at \$3600		48
Changes at \$3000 ^d	Changes at \$3000e/		63
Omits first \$3000	Changes at \$3000		
No integration	Changes at \$3000 f		3 4
No data available	Changes at \$3000Î		4
Omits first \$3000	Omits first \$3000		4
Total plans integrating	at \$3000		78
Omits first \$3000	OASI offset		1
No integration,	OASI offset		า
Miscellaneous &	Miscellaneous g/		1 1 3
Total plans with integr	ation		131
No data available	No integration		1
No integration	No integration		25
Grand total			157

a/ 10 plans also change below \$3000.
b/ 7 plans also change below \$3600.
c/ 1 plan also changes below \$3600.
d/ 17 plans also change below \$3000.
e/ 18 plans also change below \$3000.
f/ 3 plans also change below \$3000.
g/ 1 plan omits first \$600 and 2 change at \$1200 and \$2400, respectively.

APPENDIX

Plans of Nonprofit Organizations

Not included among the 157 plans analyzed in this study are 15 revised group annuities covering employees of nonprofit organizations who elected coverage under the OASI program. This is a prerogative accorded members of such groups under the 1950 amendments to the Social Security Act. Eight of the 15 plans now provide benefits integrating with the OASI old-age benefits at the \$3600 annual wage level. In 5 of these, \$3600 is the only point of integration; in 2 others there is also an intermediate change at a lower level, and in the eighth plan the first \$2400 of annual earnings is disregarded in benefit calculations. The other 7 plans have no integrating feature.

With 2 exceptions, these plans of nonprofit organizations are contributory, with 3 of them being of the money purchase type.

Four plans, 2 of which remain on the money purchase basis, made no change in the future service benefit rates; 3 nonintegrating plans increased the rates (by 25, 55, and $133\frac{1}{3}\%$ respectively); while 5 plans decreased the rate on the first \$3600 of annual earnings. Another plan increased the portion of the benefit based on the annual earnings above \$3600 (by $33\frac{1}{3}\%$) but eliminated the first \$2400 from the base. The remaining 2 plans changed from money purchase to definite benefit integrated plans (1 of which decreased the employee contribution rate).

All except 1 of the 15 plans provide vested rights upon termination of employment prior to normal or earlier optional retirement. Such rights are acquired upon satisfying a service and/or participation condition in 10 plans and both a service and age requirement in 3 others. The remaining plan provides immediate full vesting. Under 2 plans the required period of service for vesting was reduced, and another plan added vesting where formerly there was no such provision.

Age 65 is the normal retirement age in all of the plans (1 plan lowered it from age 70). Early retirement with the employer's consent is provided under all plans; age 55 is general (age 50 in 2 plans). One plan that conditions early retirement on disability has no age requirement. In 5 plans, retirement may be deferred beyond the normal age with increased benefits payable not later than age 70. In at least 1 other plan retirement may be deferred, but benefit payments begin at the normal retirement age. No provision for deferring retirement is indicated in the 9 remaining plans.

Actuarial Studies Available from the Division of the Actuary*

- 10. Various Methods of Financing Old-Age Pension Plans -- September 1938.
- 14. An Analysis of the Benefits and Costs under Title II of the Social Security Act Amendments of 1939 -- December 1941.
- 15. Comparison of Cost Estimates of the Committee on Economic Security with Actual Experience Data -- July 1940.
- 16. Estimated Amount of Life Insurance Value in Force under Survivors Benefits of the Old-Age and Survivors Insurance System -- January 1941.
- 17. New Cost Estimates for the OASI System, with the Assumption of a Static Future Wage Level -- December 1942.
- 19. OASI 1943-44 Cost Studies -- May 1944.
- 21. Analysis of Long-Range Cost Factors -- September 1946.
- 22. Cost Study for Complete Coverage Program of Old-Age, Survivors and Disability Insurance -- August 1945.
- 23. Long-Range Cost Estimates for OASI, 1946 -- April 1947.
- 24. Illustrative U.S. Population Projections, 1946 -- January 1948.
- 26. Present Values of CASI Benefits Awarded and in Current Payment Status, 1940-46 -- May 1948.
- 28. Long-Range Cost Estimates for Expanded Coverage and Liberalized Benefits Proposed to the OASI System by H.R. 2893 -- February 1949.
- 29. Estimated Amount of Life Insurance in Force as Survivor Benefits under OASI System -- April 1949.
- 30. Analysis of the Benefits under Title II of the Social Security Act Amendments of 1950 -- February 1951.
- 31. Estimated Amount of Life Insurance in Force as Survivor Benefits under Social Security Act Amendments of 1950 -- September 1951.

^{*} Numbers not listed are out of print.

- 32. Analysis of 346 Group Annuities Underwritten in 1946-50 -- October 1952.
- 33. Illustrative U.S. Population Projections, 1952 -- November 1952.
- 34. Analysis of the Benefits under the OAST Program as Amended in 1952 -- December 1952.
- 35. Present Values of OASI Benefits in Current Payment Status 1940-52 -- May 1953.
- 36. Long-Range Cost Estimates for OASI 1953 -- June 1953.
- 37. Estimated Amount of Life Insurance in Force as Survivor Benefits under Social Security Act Amendments of 1952 -- August 1953.
- 38. Long-Range Cost Estimates for Changes Proposed in the OASI System by H.R. 7199, with Supplementary Estimates for Universal Coverage -- March 1954.
- 39. Long-Range Cost Estimates for OASI 1954 -- December 1954.
- 40. The Financial Principle of Self-Support in the OASI System -- April 1955.
- 41. Analysis of Benefits, OASI Program, 1954 Amendments -- May 1955.
- 42. Present Values of OASI Benefits in Current Payment Status 1940-54 -- July 1955.
- 43. Estimated Amount of Life Insurance in Force as Survivor Benefits under OASI -- 1955 -- September 1955.
- 4. Analysis of 157 Group Annuity Plans Amended in 1950-54 -- July 1956.