

# Comparison of Actual Experience With Estimates in the Trustees' Reports

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EACH YEAR the Board of Trustees of the Federal old-age and survivors insurance trust fund is required to submit to Congress a report dealing with the past and prospective operations and status of the trust fund. These reports were first required by the Social Security Act Amendments of 1939, and in accordance with these amendments the first report was submitted in January 1941.<sup>1</sup>

One of the most important features of these reports is the estimates of the expected operation and status of the trust fund during the ensuing 5 fiscal years. The first estimates dealt with the expected experience for the 5 fiscal years 1941-45, and each subsequent report has dealt with a like period, advanced by 1 year. Now that actual data are available for 7 full fiscal years, a comparison of actual experience with the various estimates is of interest in showing the increasing effectiveness and accuracy of the estimates as the program has grown.

The comparisons made here have been confined to benefits and contributions, since these comprise the bulk of total expenditures and income, respectively. Administrative costs and interest earnings play a relatively minor part in the expected operation and status of the trust fund and are therefore omitted from this discussion.

Short-range cost estimates on a calendar-year basis had been developed at the time the 1939 amendments were considered by Congress (S. Rept. 734, 76th Cong., 1st sess., p. 17). The first Trustees' report pointed out that these estimates had been stated to be subject to a range of error because they had been made prior to the development of any actual experience and before the economic effects of the defense program were foreseeable. As a result, the first report went on to state, the 1939 estimates were con-

siderably higher than those of the first report in regard to benefit disbursements and lower in regard to contribution collections.

In the first two Trustees' reports, only a single estimate was presented. The third and fourth reports gave a single estimate for the first 2 years and a range for the next 3 years, except that the fourth gave a range in estimated contributions for all 5 years. In the fifth and sixth reports a single figure is given only for the first year, with a range for the next 4 years, while the seventh and eighth reports followed the same procedure for benefit disbursements but used a range for contributions for all years.

This transition in method of presentation represents a gradual adoption of the viewpoint that a range in future cost estimates is desirable. A single figure may safely be given for the first fiscal year shown in each report, since the estimate is not prepared until that year is almost half completed and there is a sound basis for the estimate. As more and more experience and larger benefit rolls de-

velop, the benefit estimates in future reports may reasonably be expected to be more precise. It will probably always be desirable to have some range, however, which from a relative standpoint should be smaller than in earlier reports, but in absolute terms of dollars may be rather large. It is impossible to predict with complete accuracy the level of benefit disbursements 5 years in the future, especially since the benefits actually paid depend on substantial retirement from covered employment, which in turn depends on economic conditions.

Table 1 shows the actual and estimated benefit disbursements according to the various reports, and table 2 gives similar data on contributions.<sup>2</sup> The figures presented as contribution income have been modified to reflect the continuous freezing of the contribution rate at 2 percent for employers and employees combined, and the subsequent revision in the eventual rates as made in the Social Security Act

<sup>2</sup> In the eighth report the contribution estimates include appropriated reimbursements for the veterans' survivor benefits for 1948-52 under section 210 of the 1946 amendments to the Social Security Act; no such appropriations have yet been made although payments certified through the calendar year 1947 totaled \$4.6 million. In earlier reports no account was taken of these provisions, either in regard to benefit disbursements or contributions.

Table 1.—Actual benefit disbursements, fiscal years 1941-47, and estimated benefits according to various Trustees' reports, fiscal years 1941-52

[In millions]

Report	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952
	Actual data											
Eighth.....	\$64	\$110	\$149	\$185	\$240	\$321	\$426	-----	-----	-----	-----	-----
	Estimates of Trustees' reports											
First.....	\$78	\$165	\$274	\$402	\$548	-----	-----	-----	-----	-----	-----	-----
Second.....	-----	113	166	225	290	\$360	-----	-----	-----	-----	-----	-----
Third: <sup>1</sup>	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Low.....	-----	-----	155	205	260	320	\$380	-----	-----	-----	-----	-----
High.....	-----	-----	155	205	295	565	775	-----	-----	-----	-----	-----
Fourth:	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Low.....	-----	-----	-----	181	214	255	307	\$365	-----	-----	-----	-----
High.....	-----	-----	-----	181	214	268	365	455	-----	-----	-----	-----
Fifth:	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Low.....	-----	-----	-----	-----	238	311	386	450	\$512	-----	-----	-----
High.....	-----	-----	-----	-----	238	343	479	566	627	-----	-----	-----
Sixth:	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Low.....	-----	-----	-----	-----	-----	323	407	480	549	\$618	-----	-----
High.....	-----	-----	-----	-----	-----	323	481	569	654	723	-----	-----
Seventh:	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Low.....	-----	-----	-----	-----	-----	-----	423	507	590	674	\$761	-----
High.....	-----	-----	-----	-----	-----	-----	423	576	683	782	870	-----
Eighth:	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Low.....	-----	-----	-----	-----	-----	-----	-----	509	599	681	768	\$855
High.....	-----	-----	-----	-----	-----	-----	-----	509	676	786	888	964

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<sup>1</sup> The first report was not published, but all subsequent reports have been released as either House or Senate documents.

<sup>1</sup> The third report used 3 estimates, but only the low and high are shown here.

Amendments of 1947, which lead to a combined rate of 3 percent in the calendar years 1950-51 and 4 percent thereafter.

The modification of the contribution figures was accomplished solely from the data in the various reports. The figure shown in the report for a particular year was multiplied by the ratio of the actual contribution rate (or in the case of the future years, by the scheduled rate in the Social Security Act Amendments of 1947) to the rate used in that report. When the contribution rate increased in the particular year, the average rate in effect in the year, taking into account the 3-month lag in collections, was used.<sup>3</sup> This method is only approximate since it assumes an even distribution throughout the year in regard to both total covered pay roll and contribution income. Actually, even if the payroll base were level over the course of a year, the contribution income would vary by calendar quarters because of the \$3,000 maximum on taxable wages.<sup>4</sup>

In recent years, when the effect of the trend in total covered pay roll is eliminated, it is found that about 27½ percent of the contribution income is received with respect to the first calendar quarter (i. e., is received in the second quarter), with the corresponding figures for the 3 succeeding quarters being 26½, 25, and 21 percent, respectively; the quarterly distribu-

<sup>3</sup> For example, in the second report the contribution schedule used in the estimates provided for a combined employer-employee rate of 2 percent for calendar years 1940-42 and 4 percent for calendar years 1943-45. For the fiscal year 1943 (July 1, 1942, to June 30, 1943) the contribution income was based on wages for the period April 1, 1942, to March 31, 1943 (because of the 3-month lag in collections), so that the average rate used was 2½ percent (9 months at 2 percent and 3 months at 4 percent). The actual rate was 2 percent, so that the modification factor was 0.80 (2 percent divided by 2½ percent), which when applied to the figure of \$1,394 million published in the report yields the \$1,115 shown in table 2.

<sup>4</sup> Individuals with wages in excess of \$3,000 are taxed on the first \$3,000 of wages, and all wages thereafter from the same employer during the calendar year are exempt. For instance, the taxes in respect to a \$12,000 individual would all be paid in the second quarter of the year on his wages in the first quarter.

tion in 1942 and earlier was much more uniform than this, being about 26½, 25½, 25, and 23 percent, respectively. If the factor of uneven quarterly distribution of contribution income had been taken into account, the modified contribution figures for those years for which an increase in the rate was scheduled would have been slightly higher than those shown, at most by 2 or 3 percent relatively.<sup>5</sup> This small differential, of course, has no appreciable effect on the following analysis.

A comparison of the actual experience with that estimated for each of the fiscal years 1941-47 is made in table 3. Except for the first report, the benefit estimates made for the first year in each report (reading down the diagonal) were very close to

<sup>5</sup> For example, applying the recent, and most uneven, quarterly distribution to the data from the second report for fiscal year 1943 (as previously discussed in footnote 3), 27½ percent of the pay roll from which contributions are received during the year would have the 4-percent rate applicable, and correspondingly the 2-percent rate would pertain to the remaining 72½ percent. The average rate would thus be 2.55 percent, or 2 percent greater relatively than the average rate of 2½ percent based on equal quarterly distribution.

the actual experience. The ratio of estimates to actual figures ranged only from 98 percent to 104 percent for the years 1942 to 1947. The benefit estimates in the first report were increasingly in excess of the actual experience, being more than double the benefits paid in 1944 and 1945. For one thing, in these first estimates it was not anticipated that retirements would be so materially deferred as they actually were as the result of the favorable wartime employment conditions.

The benefit estimates in the second report were also somewhat in excess of actual experience, but only by about 10-20 percent. In the third report, in which a range was first introduced, the low estimate was close to actual experience for 1945 and 1946 but more than 10 percent below for 1947. However, the high estimate was consistently too high, being more than 80 percent above the actual experience for 1946 and 1947.

In the fourth report, apparently because of the considerable overestimates for 1941-44 in the preceding reports, the benefit estimates were significantly lower than the actual experience for 1945-47, and generally lower for each succeeding year; in

Table 2.—Actual contributions, fiscal years 1941-47, and estimated contributions according to various Trustees' reports adjusted to correspond to actual or scheduled future contribution rates, fiscal years 1941-52

[In millions]

Report	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952
	Actual data											
Eighth.....	\$688	\$896	\$1,130	\$1,292	\$1,310	\$1,238	\$1,459					
	Estimates of Trustees' reports											
First.....	\$667	\$725	\$725	\$725	\$725							
Second.....		900	1,115	1,100	1,100	\$1,100						
Third: <sup>1</sup>												
Low.....			1,105	1,245	1,310	908	\$940					
High.....			1,105	1,245	1,355	1,424	1,480					
Fourth:												
Low.....				1,268	1,299	1,196	910	\$832				
High.....				1,306	1,352	1,365	1,288	1,056				
Fifth:												
Low.....					1,305	953	814	712	\$746			
High.....					1,305	1,110	956	948	1,182			
Sixth:												
Low.....						1,128	1,025	1,094	1,123	\$1,289		
High.....						1,128	1,136	1,230	1,320	1,548		
Seventh:												
Low.....							1,403	1,407	1,299	1,502	\$2,024	
High.....							1,409	1,450	1,459	1,683	2,279	
Eighth: <sup>2</sup>												
Low.....								1,548	1,477	1,784	2,479	\$2,730
High.....								1,631	1,676	1,966	2,687	2,976

<sup>1</sup> The actual combined employer and employee rate has been 2 percent in calendar years 1937-48; under the Social Security Act Amendments of 1947 it is scheduled at 2 percent in 1949, 3 percent in 1950-51,

and 4 percent thereafter.

<sup>2</sup> The third report used 3 estimates, but only the low and high are shown here.

<sup>3</sup> See text footnote 2.

fact, for 1947 the estimates were 14-28 percent lower. In the fifth, sixth, and seventh reports, the benefit estimates have reasonably closely approximated or "bracketed" the actual data.

For the contribution estimates, the first report showed a successively decreasing ratio of estimated to actual amounts, the ratios for 1944 and 1945 being only about 55 percent. This divergence, of course, was a result of the unforeseen and unforeseeable sharp rise in pay rolls due to the war. Thus, specifically, the taxable pay roll for the calendar year 1947 was \$78 billion, or more than 2½ times the 1939 figure of \$30 billion.

The contributions estimated in the second report came considerably closer to the actual amounts, although they were some 10-15 percent lower for 1944, 1945, and 1946. By the time these estimates were made, there was some better indication of the immediate rise in pay rolls that was likely to occur because of the demands of the war.

The third report, issued at the beginning of the calendar year 1943, showed a very close agreement between actual and estimated contribution income for 1943 to 1945. For 1946 and 1947 the actual data were much closer to the high estimate than the low one. The range selected had been made quite wide because of the

uncertainties of the economic and military situation. As may readily be realized, the high estimate proved to be the more accurate because of the full-employment conditions that prevailed after the war, as well as the generally increasing wage rates.

The actual data in the fourth report agreed very closely with the estimates for the first 3 years. For 1947, however, the estimates, which had a narrow range, were both significantly lower because the continued rise in pay rolls in the postwar period had not been foreseen; rather, a drop had been expected.

The 1947 estimates of the fifth and sixth reports were also considerably lower than the actual experience. In fact, even the estimate made in the middle of the fiscal year 1947, namely, that of the seventh report, was somewhat farther below the actual data than the first-year estimates have usually been.

Another matter of interest is the range shown in the estimates for future years. Considering first the benefit disbursements in table 1, and looking only at the most distant year estimated in each report, it may be seen that the relative variation from low to high estimate was more than 100 percent in the third report, decreased to about 25 percent for the fourth report and 22 percent for the fifth report, and was only about 13

percent for the eighth and last report. In fact, it is noteworthy that, for the fourth and subsequent reports, the difference between the low and high cost estimates for the most distant year considered has in all cases been only about \$100 million. As a substantial backlog of beneficiaries has been built up, estimates can undoubtedly be made with greater and greater accuracy, so that these decreasing differentials are completely justified.

Next, turning to the range in estimated contribution income in table 2, we again find that the third report had a considerable range—57 percent, measuring from the low to the high estimate. In the fourth report the corresponding figure was 27 percent, while the fifth report had the greatest range—more than 58 percent. However, in the sixth report the relative range decreased to 20 percent, while in the seventh report it was only 13 percent and in the eighth report only about 9 percent. These relatively small variations in an element that in the past had varied by more than 100 percent and in the future is apt to fluctuate greatly with economic conditions arise from the fact that the economic assumptions for the end of the period were about the same for both low and high estimates.

On the whole, the analysis indicates that the estimates in the various Trustees' reports have been reasonably accurate, considering the drastic economic changes that have occurred during the past 7 years as well as the effect of the war. The need for a substantial range in the estimates, particularly in the latter years of each 5-year period, seems to be clearly indicated. It is noteworthy that the contributions were estimated somewhat more closely than the benefit payments in the first few years of operation, but that in the last 2 or 3 years this situation has been reversed. Such a situation might be expected because, as the benefit roll is built up, it does not change sharply from year to year since it is cumulative—that is, most beneficiaries stay on the rolls and their benefit rate remains the same. The pay roll on

Table 3.—Estimates in Trustees' reports as percent of actual amounts, by fiscal year, 1941-47<sup>1</sup>

Report	1941	1942	1943	1944	1945	1946	1947
Benefit payments							
First.....	122	150	184	217	228	-----	-----
Second.....	-----	103	111	122	121	112	-----
Third.....	-----	-----	104	111	108-123	100-182	89-182
Fourth.....	-----	-----	-----	98	89	79-83	72-86
Fifth.....	-----	-----	-----	-----	99	97-107	91-112
Sixth.....	-----	-----	-----	-----	-----	101	96-113
Seventh.....	-----	-----	-----	-----	-----	-----	99
Contributions <sup>1</sup>							
First.....	97	81	64	56	55	-----	-----
Second.....	-----	100	99	85	84	89	-----
Third.....	-----	-----	98	96	100-103	73-115	64-101
Fourth.....	-----	-----	-----	98-101	99-103	97-110	62-88
Fifth.....	-----	-----	-----	-----	100	77-90	56-65
Sixth.....	-----	-----	-----	-----	-----	91	70-78
Seventh.....	-----	-----	-----	-----	-----	-----	96-97

<sup>1</sup> Estimates in the Trustees' reports adjusted to reflect the freezing of the contribution rate at a combined employee-employer rate of 2 percent instead of following the increases scheduled in the Social Security Act Amendments of 1939 and subsequent amendments thereto.

NOTE: When only 1 figure is shown there was a single estimate. When 2 figures are shown, there were 2 or more estimates and the range shown is based on the lowest and highest.

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FOOTE, FRANKLIN M. "Public Responsibility for an Eye Health Program." *The Sight-Saving Review*, New York, Vol. 17, Winter 1947, pp. 228-235. 50 cents.

GRANT, JOHN B. "International Trends in Health Care." *American Journal of Public Health*, New York, Vol. 38, Mar. 1948, pp. 381-397. 70 cents.

Discusses a preliminary survey, made in 12 countries including the United States, of work and literature in the field of health care; includes a bibliography.

HOY, ELVIN A. "Recent Developments in Cash Sickness Insurance." *American Economic Security* (Chamber of Commerce of the U. S. A.), Washington, Vol. 5, Feb.-Mar. 1948, pp. 16-20. 15 cents.

Describes the Rhode Island and California programs as well as the proposed New Jersey plan.

JONES, E. LLOYD. "The Medical Care of Indian Labour." *Indian Labour Gazette*, Delhi, Vol. 5, Oct. 1947, pp. 217-222.

Considers the scope, cost, and future plans for medical care in India.

LINDSEY, FRED D. "The Extent of Government Health and Medical Care Activities." *American Economic Security* (Chamber of Commerce of the U. S. A.), Washington, Vol. 5, Feb.-Mar. 1948, pp. 21-29. 15 cents.

MALLETT, HELEN. "Is Federalized Medicine the Answer?" *The Trained Nurse and Hospital Review*, New York, Vol. 30, Jan. 1948, pp. 44-47. \$2 a year.

MALMBERG, CARL. *140 Million Patients*. New York: Reynal and Hitchcock, 1947. 242 pp. \$2.75.

Describes the present system of medical care in the United States, pointing out its limitations and its cost; and urges development of a plan to provide everyone with adequate medical care.

MCVAY, JAMES R. "Voluntary Prepayment Medical Care Plans." *New York Medicine*, New York, Vol. 4, Mar. 20, 1948, pp. 22-24. 15 cents. Reviews the development of medical care prepayment plans and examines their potentialities.

"Progress of Health and Security Legislation in the United States." *International Labour Review*, Geneva, Vol. 57, Jan.-Feb. 1948, pp. 26-42. 50 cents.

"Rehabilitation of the Disabled in Mining Industries." *International*

*Labour Review*, Geneva, Vol. 57, Jan.-Feb. 1948, pp. 43-61. 50 cents.

Gives the experience in rehabilitating injured miners in Czechoslovakia, Great Britain, Union of South Africa, and the United States.

SMILLIE, WILSON G. *Public Health Administration in the United States*. 3d ed. New York: Macmillan Company, 1947. 637 pp. \$5.33.

WILSON, EUNICE W. "Social Service in an Eye Clinic and Its Relationship to Community Agencies." *The Sight-Saving Review*, New York, Vol. 17, Winter 1947, pp. 201-216. 50 cents.

WINSLOW, C. E. A. "Prevention of Blindness in a Public Health Program." *The Sight-Saving Review*, New York, Vol. 17, Winter 1947, pp. 187-193. 50 cents.

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in the fourth quarter of 1947 than was the case in 1946. Some 2.6 million employers reported payment of taxable wages during the quarter, the highest number to date.

IN ALL FOUR TYPES of public assistance the number of recipients continued to increase slightly. The more marked upward trend evident since December in general assistance undoubtedly reflected the greater need which always exists during the winter months as well as the cumulative result of higher living costs. Average payments, if we ignore the inflated February averages that resulted from the retroactive payments made by Missouri in that month, also rose somewhat. Total public assistance expenditures for the month amounted to \$138.4 million. This figure was \$17.3 million greater than expenditures in March 1947 and about \$414,300 greater than February expenditures, which were inflated by Missouri's retroactive payments of \$2 million.

#### *Congressional Study of Social Security*

On March 11 the Senate provided additional funds for the study of social security that it had authorized in July 1947. Senate Resolution 202, introduced by Senator Millikin, chairman of the Senate Finance Committee, increased by \$25,000 the amount available to the Advisory Council on Social Security for the current year. The Council, created to assist the Senate Finance Committee in a comprehensive study of the present social security system and of various proposals for its expansion, has made its first report to the Committee. The report, which deals with old-age and survi-

vors insurance, is carried in part in this issue of the BULLETIN.

The House Committee on Ways and Means announced on March 15 the creation of a Subcommittee on Social Security. Representative Reed is chairman, and the other members are Representatives Woodruff, Kean, Curtis, Mason, Dingell, West, Mills, and Lynch.

#### *Mississippi Passes Workmen's Compensation Law*

As a result of Mississippi's enactment on April 13, 1948, of a workmen's compensation law, all States now have workmen's compensation programs. The Mississippi system, which goes into effect on January 1, 1949, is compulsory with respect to employers of 8 or more and permits employers who are otherwise exempt to elect coverage. A covered employer may either insure with a private insurance company or may self-insure by giving proof of ability to carry his own risk. Compensation for disability is payable at the rate of two-thirds of weekly wages, subject to a weekly benefit maximum of \$25 and to over-all maximums of \$8,600 in amount and 450 weeks in duration. The same maximums apply to death cases. Cost and duration of medical benefits are not limited.

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which the contributions are based can fluctuate considerably from year to year and to a greater extent over a 5-year period as economic conditions change. For this reason, future variations in the range could well be expected to be smaller for estimated benefit payments than for estimated contribution income.