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# BOOK REVIEWS

U.S. Congress, *1981 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds*, pp. 118, Government Printing Office, Washington, D.C., July, 1981.

The Board of Trustees' reports are very important in informing people of the outlook for the social security program, especially since their results are reported by the news media. The results of the 1981 reports were the basis for numerous news items saying that the Old-Age and Survivors Insurance Trust Fund would be exhausted in 1982 and others explaining the long-range financial problems due to the current low birth rates. As a result, the trustees' reports can and do have a significant effect on public opinion. Therefore, it is imperative that they be objective, complete, and understandable to laymen, and this reviewer believes that they meet these requirements. Anyone interested in the financial condition of social security should read these reports.

The 1981 trustees' reports were out of date within a month after they were released because of the enactment of President Reagan's economic package, which made many changes in the social security program aimed at improving the financial condition. Some of these changes are as follows: (1) elimination of the regular minimum benefit; (2) elimination of student benefits at ages 18–21; (3) introduction of a maximum on disability benefits from all governmental (including state and local) sources; (4) reduction of the maximum age for a child to qualify its mother or father for benefits; (5) limitation of the payment of the lump-sum benefits to certain spouses and children; and (6) elimination of benefit payments for the month of entitlement unless it is a full month. The Social Security Administration estimates that the net effects of these changes will be to reduce the actuarial deficits shown in the 1981 trustees' reports.

From the point of view of actuaries, an important addendum to the 1981 report not contained in earlier reports is a Statement of Actuarial Opinion signed by Dwight K. Bartlett III, the chief actuary of the Social Security Administration. This statement is similar to the statements concerning methodology and assumptions that enrolled actuaries are required to sign when filing Schedule B of Form 5500 for private pension plans. This should reduce the chance of the politicizing of these reports.

The report is organized in such a way that the reader can easily find those areas in which he or she is interested. There are sections giving (1) the highlights, (2) a summary of operations in fiscal year 1980, (3) actuarial cost projections, (4) the assumptions used for the actuarial projections, and (5) explanations of the sources of differences in the estimates between the 1980 and 1981 reports.

## OPERATIONS OF TRUST FUNDS IN 1980

Table 1 gives a brief summary of trust fund operations in 1979 and 1980. The increase in the income amounts from 1979 to 1980 was due primarily to the increase

TABLE 1

OPERATIONS OF OASI AND DI TRUST FUNDS IN 1979 AND 1980
(Amounts in Billions)

| | 1979 | | 1980 | |
|---|---|---|---|---|
| | OASI | DI | OASI | DI |
| Assets at beginning of year | $27.5 | $ 4.2 | $ 24.7 | $ 5.6 |
| Income during year | 90.3 | 15.6 | 105.8 | 13.9 |
| Outgo during year | 93.1 | 14.2 | 107.7 | 15.9 |
| Trust fund at end of year | 24.7 | 5.6 | 22.8 | 3.6 |

in the maximum amount of earnings subject to tax, increases in the tax rate, and increases in wage levels. Outgo increased due to the 9.9 percent and 14.3 percent cost-of-living adjustments in benefit amounts effective for June, 1979, and June, 1980, respectively, as well as to the natural growth in the number of beneficiaries and average benefits amounts.

Since all except $2.6 billion of outgo for 1980 was for benefit payments, the ratio of the OASI trust fund assets at the beginning of the year 1980 to 1980 benefit payments is only about 23 percent and is 25 percent for the OASDI trust funds combined. The 1971 Advisory Council on Social Security recommended that this ratio be 100 percent, but this criterion has not been met since 1971 for the combined OASDI trust funds. The 1981 report states that when this ratio drops below 12–14 percent, the exhaustion of the trust fund becomes imminent. Some statement as to the desired ratio should be contained in the trustees' reports and should be at least 50 percent, with a 75 percent ratio more desirable.

Another point of which most people are not aware is the relative efficiency of the administration of the programs. In 1980, administrative expenses for the OASDI programs were $1.5 billion, or only 1.3 percent of benefit payments, a low ratio of administrative expenses to benefit payments.

Many people who discuss social security think of it in terms of a retirement program and forget about the survivor benefits and benefits paid to dependents of retired and disabled employees. Only about two-thirds of the payments out of the OASI Trust Fund in 1980 were to retired employees, and about one-quarter went to survivors of deceased employees. These percentages are about the same as they were in 1979. Thus, it should be stressed that the social security program is a complete program for protection against loss of income due to retirement, death, or disability. Tables 2 and 2A show the breakdown of benefit payments by category of beneficiary separately for the OASI and DI trust funds.

### SHORT-RANGE ACTUARIAL PROJECTIONS

The projected future costs are broken down into short-range (first five years), medium-range (first twenty-five years), and long-range (first seventy-five years). For the short-range projections there are five scenarios this year, as contrasted with three in prior reports. Alternative I is based on optimistic assumptions, alternatives II-A and II-B are based on intermediate assumptions, alternative III is based on pessimistic assumptions, and the fifth is a "worst-case" projection. In prior reports, there was only one intermediate assumption, so one wonders why there are two in this report.

TABLE 2

ESTIMATED DISTRIBUTION OF BENEFIT PAYMENTS FROM OASI TRUST FUND, BY TYPE OF BENEFICIARY AND PAYMENT, FISCAL YEAR 1980

(Amounts in Millions)

| | Amount | Percent of Total |
|---|---|---|
| Total | $100,615 | 100% |
| Monthly benefits | $100,234 | 100% |
| Retired workers and their dependents | $ 74,513 | 74% |
| Retired workers | $ 67,276 | 67% |
| Wives and husbands | 6,139 | 6 |
| Children | 1,009 | 1 |
| Survivors of deceased workers | $ 25,600 | 25% |
| Aged widows and widowers | $ 16,578 | 16% |
| Disabled widows and widowers | 304 | * |
| Parents | 54 | * |
| Children | 7,141 | 7 |
| Widowed mothers and fathers caring for child beneficiaries | 1,523 | 2 |
| Noninsured persons aged 72 and over | 121 | * |
| Lump-sum death payments | $ 381 | * |

NOTE.—Totals do not necessarily equal the sum of rounded components.
* Less than 0.5 percent.

TABLE 2A

ESTIMATED DISTRIBUTION OF BENEFIT PAYMENTS FROM DI TRUST FUND, BY TYPE OF BENEFICIARY, FISCAL YEAR 1980

(Amounts in Millions)

| | Amount | Percent of Total |
|---|---|---|
| Total | $14,899 | 100% |
| Disabled workers | $12,355 | 83% |
| Wives and husbands | 620 | 4 |
| Children | 1,924 | 13 |

NOTE.—Totals do not necessarily equal the sum of rounded components.

There is no statement as to whether alternative II-A or II-B is the most probable projection for the next five years. This reviewer feels that actual experience will come closer to the results of projection II-B rather than II-A. The report states that "alternative II-A assumed future economic performance resembling that of the more robust recent economic expansions; such performance would result from policies aimed at stimulating growth and lowering inflation." This statement indicates wishful thinking on the part of its proponents, especially since there is no definition of what is meant by "recent economic expansions." Does "recent economic expansions" mean the last year, the last three years or the last five years? Regardless of the period meant, it appears that alternative II-A is optimistic and thus contrary to usual actuarial practice for a most probable projection.

It also appears that alternative II-B is the one most nearly comparable to those of the intermediate projections of past reports and, therefore, should be considered the most probable projection. In a paper by Roland E. King and Clifford K. Powell that appears in this volume of the *Transactions* (p. 83), the authors were critical of the economic assumptions used in the 1980 trustees' reports, particularly those relating to the real earnings growth. Since the intermediate estimates of the 1980 trustees' report were more comparable to those under alternative II-B than to those under II-A of the 1981 reports, the criticisms in that paper imply that even the estimates for alternative II-B may be too optimistic. Historically, the intermediate projections have proved to be optimistic, so that this criticism should be noted.

All five of the short-range alternatives show the OASI Trust Fund being exhausted no later than the end of 1982, but none of them shows the DI Trust Fund being exhausted during the first five years. When the two funds are combined, they still would be exhausted by 1982 or 1983 under all five sets of assumptions. The proposal for interfund borrowing is controversial because the combined OASDI and HI funds would get safely through the next five years under just the two most optimistic sets of assumptions. In view of the way the allocation of OASDI taxes between the two funds has been changed over the years, the question arises as to why they are kept separate. Perhaps there was a reason in 1956 when the DI Trust Fund came into existence, but that reason has been obscured over time.

### MEDIUM AND LONG-RANGE PROJECTIONS

For the medium- and long-range estimates, the "worst-case" alternative is not shown, but the other four are given. Table 3 gives the tax rates and costs as percentages of taxable payrolls for these longer-range estimates for various years. Table 3 shows that only the pessimistic assumptions of alternative III result in a deficit for the entire twenty-five-year period from 1981 to 2005. In this twenty-five-year period, only the economic assumptions are really open to significant variation, since most people who will be in the labor force or receiving benefits have already been born. On the other hand, all except the optimistic assumptions of alternative I show deficiencies over the seventy-five-year period.

As publicized by the news media, much of the long-range deficits are due to the low birth rates that we have been experiencing. These low birth rates will cause the ratio of social security–covered workers to beneficiaries to decrease from the current level of 3.3 to a low point of 2.4 for the optimistic assumptions and 1.3 for the pessimistic assumptions. Both of the intermediate projections are based on the same demographic assumptions and show an ultimate ratio of covered employees to beneficiaries of 2.0. This kind of decline in the ratio is a serious problem for a system

TABLE 3

TAX RATES AND ESTIMATED COST RATES OF OASDI SYSTEM UNDER ALTERNATIVES I, II-A, II-B, AND III, CALENDAR YEARS 1981–2055

| Calendar Year | Tax Rate | Cost rate by alternative | | | |
|---|---|---|---|---|---|
| | | I | II-A | II-B | III |
| 1981 | 10.70% | 11.24% | 11.30% | 11.30% | 11.21% |
| 1982 | 10.80 | 11.28 | 11.43 | 11.45 | 11.54 |
| 1983 | 10.80 | 11.13 | 11.33 | 11.45 | 11.90 |
| 1984 | 10.80 | 11.01 | 11.21 | 11.57 | 11.93 |
| 1985 | 11.40 | 10.85 | 11.10 | 11.63 | 12.04 |
| 1986 | 11.40 | 10.69 | 10.94 | 11.73 | 12.17 |
| 1987 | 11.40 | 10.40 | 10.83 | 11.79 | 12.28 |
| 1988 | 11.40 | 10.37 | 10.80 | 11.86 | 12.39 |
| 1989 | 11.40 | 10.15 | 10.73 | 11.88 | 12.47 |
| 1990 | 12.40 | 10.12 | 10.69 | 11.86 | 12.57 |
| 1991 | 12.40 | 10.11 | 10.66 | 11.83 | 12.67 |
| 1992 | 12.40 | 10.02 | 10.64 | 11.80 | 12.74 |
| 1993 | 12.40 | 9.92 | 10.62 | 11.75 | 12.79 |
| 1994 | 12.40 | 9.84 | 10.59 | 11.71 | 12.84 |
| 1995 | 12.40 | 9.76 | 10.58 | 11.70 | 12.95 |
| 1996 | 12.40 | 9.64 | 10.52 | 11.61 | 12.98 |
| 1997 | 12.40 | 9.55 | 10.46 | 11.50 | 12.94 |
| 1998 | 12.40 | 9.45 | 10.40 | 11.39 | 12.89 |
| 1999 | 12.40 | 9.36 | 10.34 | 11.27 | 12.82 |
| 2000 | 12.40 | 9.26 | 10.27 | 11.19 | 12.82 |
| 2001 | 12.40 | 9.19 | 10.25 | 11.16 | 12.89 |
| 2002 | 12.40 | 9.15 | 10.25 | 11.13 | 12.92 |
| 2003 | 12.40 | 9.11 | 10.26 | 11.10 | 12.96 |
| 2004 | 12.40 | 9.09 | 10.27 | 11.09 | 13.01 |
| 2005 | 12.40 | 9.08 | 10.29 | 11.09 | 13.09 |
| 2010 | 12.40 | 9.45 | 10.87 | 11.62 | 14.01 |
| 2015 | 12.40 | 10.42 | 12.12 | 12.87 | 15.82 |
| 2020 | 12.40 | 11.56 | 13.64 | 14.43 | 18.17 |
| 2025 | 12.40 | 12.52 | 15.05 | 15.92 | 20.70 |
| 2030 | 12.40 | 12.84 | 15.85 | 16.79 | 22.65 |
| 2035 | 12.40 | 12.63 | 16.04 | 17.03 | 23.98 |
| 2040 | 12.40 | 12.07 | 15.80 | 16.82 | 24.84 |
| 2045 | 12.40 | 11.62 | 15.64 | 16.68 | 25.78 |
| 2050 | 12.40 | 11.42 | 15.68 | 16.74 | 26.86 |
| 2055 | 12.40 | 11.34 | 15.77 | 16.82 | 27.78 |
| 25-year averages: | | | | | |
| 1981–2005 | 11.94 | 9.99 | 10.67 | 11.51 | 12.55 |
| 2006–30 | 12.40 | 11.07 | 13.07 | 13.87 | 17.50 |
| 2031–55 | 12.40 | 11.92 | 15.79 | 16.81 | 25.43 |
| 75-year average: | | | | | |
| 1981–2055 | 12.25 | 10.99 | 13.17 | 14.07 | 18.50 |

funded on a pay-as-you-go basis. Table 4 shows the basic population figures and the ratios for the various assumptions.

The report states that the trust funds are considered to be in close actuarial balance if the scheduled tax rates are within 5 percent of the projected liabilities. (None of the long-range alternatives except alternative I meet this criterion.) This reviewer takes this to mean that a 5 percent margin is within the realm of actuarial tolerance, and no corrective action need be taken until further experience is developed. However, what is the basis of this criterion, and how was it derived? Actuaries should take an interest and discuss what tolerance level should be used.

### MISCELLANEOUS

The report also includes (1) tables and texts analyzing the changes in the estimates between the 1980 and 1981 reports; (2) descriptions of the securities being held; (3) tables and descriptions of economic and demographic assumptions and the logic behind them; (4) expected annual mortality improvements; (5) population projections (more detail on these is given in Social Security Actuarial Study No. 85); (6) a sensitivity analysis for changes in the various assumptions, and (7) a cyclic analysis that was introduced for the first time this year. More detail on this material would unduly expand this review. Persons interested in the particulars of these should obtain a copy of the reports.

This reviewer would like to call attention to a few areas where he feels that the federal government or the Treasury is not treating the social security trust funds fairly according to the material in the reports. These are in the areas of trust fund assets.

According to the report, the military service reimbursements are based on a 1975 determination of level annual appropriations to amortize total costs of noncontributing military service over a thirty-nine-year period. The amounts appropriated in 1979 and 1980 were the same, which implies that there have been no allowances for actual cost-of-living adjustments. Recent social security cost-of-living adjustments must of necessity have been greater than anything that could have been assumed in 1975. (This mystery could be cleared up if the reports explained that the military service adjustment is recalculated every five years, with the 1980 figures to be used beginning with the 1982 report, in accordance with the Social Security Act.)

With respect to the investment of assets, the trust funds do not appear to have been able to take full advantage of the current high interest yields. It appears that new income is invested in short-term securities that mature on the following June 30 and that these bear an interest rate equal to the average market yield of those government securities on the market with four or more years to maturity. Since these are short-term securities, why shouldn't they earn the rate on government bills rather than the rate on long-term notes and bonds? Furthermore, because they are short-term securities, they are the first to be redeemed to pay benefits until they are reinvested on the following June 30. After all the short-term securities are redeemed, the next to be cashed in are those longer-range securities with the closest maturity date, regardless of their yield.

TABLE 4

COMPARISON OF OASDI BENEFICIARIES AND COVERED WORKERS UNDER ALTERNATIVES I, II-A, II-B, AND III, CALENDAR YEARS 1945–2055

| Calendar Year | Covered Workers (in Thousands)* | Beneficiaries (in Thousands)† | | | Covered Workers per OASDI Beneficiary |
|---|---|---|---|---|---|
| | | OASI | DI | Total | |
| 1945 ......... | 46,390 | 1,106 | .......... | 1,106 | 41.9 |
| 1950 ......... | 48,280 | 2,930 | .......... | 2,930 | 16.5 |
| 1955 ......... | 65,200 | 7,563 | .......... | 7,563 | 8.6 |
| 1960 ......... | 72,530 | 13,740 | 522 | 14,262 | 5.1 |
| 1965 ......... | 80,680 | 18,509 | 1,648 | 20,157 | 4.0 |
| 1970 ......... | 93,090 | 23,185 | 2,568 | 25,753 | 3.6 |
| 1975 ......... | 100,200 | 27,244 | 4,125 | 31,369 | 3.2 |
| 1980 ......... | 115,110 | 30,384 | 4,734 | 35,118 | 3.3 |
| | Alternative I | | | | |
| 1981 ......... | 115,962 | 31,072 | 4,697 | 35,769 | 3.2 |
| 1990 ......... | 137,654 | 36,886 | 4,358 | 41,244 | 3.3 |
| 2000 ......... | 146,317 | 39,280 | 5,122 | 44,402 | 3.3 |
| 2010 ......... | 156,133 | 44,061 | 5,974 | 50,035 | 3.1 |
| 2020 ......... | 161,418 | 55,549 | 6,257 | 62,076 | 2.6 |
| 2030 ......... | 169,142 | 65,608 | 6,217 | 71,825 | 2.4 |
| 2040 ......... | 180,178 | 66,564 | 6,470 | 73,034 | 2.5 |
| 2050 ......... | 192,869 | 67,627 | 7,105 | 74,732 | 2.6 |
| | Alternatives II-A and II-B‡ | | | | |
| 1981 ......... | 115,748 | 31,072 | 4,697 | 35,769 | 3.2 |
| 1990 ......... | 134,556 | 37,260 | 4,750 | 42,010 | 3.2 |
| 2000 ......... | 143,732 | 40,504 | 5,690 | 46,194 | 3.1 |
| 2010 ......... | 152,055 | 46,109 | 7,057 | 53,166 | 2.9 |
| 2020 ......... | 153,940 | 58,624 | 7,703 | 66,327 | 2.3 |
| 2030 ......... | 155,730 | 70,062 | 7,250 | 77,312 | 2.0 |
| 2040 ......... | 159,683 | 72,368 | 7,352 | 79,720 | 2.0 |
| 2050 ......... | 163,798 | 74,016 | 7,721 | 81,737 | 2.0 |
| | Alternative III | | | | |
| 1981 ......... | 115,599 | 31,072 | 4,696 | 35,768 | 3.2 |
| 1990 ......... | 131,608 | 37,699 | 4,958 | 42,657 | 3.1 |
| 2000 ......... | 141,172 | 43,071 | 6,175 | 49,246 | 2.9 |
| 2010 ......... | 147,754 | 50,678 | 8,268 | 58,946 | 2.5 |
| 2020 ......... | 145,415 | 65,573 | 9,005 | 74,578 | 1.9 |
| 2030 ......... | 140,452 | 80,118 | 8,344 | 88,462 | 1.6 |
| 2040 ......... | 136,364 | 85,739 | 8,168 | 93,907 | 1.5 |
| 2050 ......... | 131,247 | 89,858 | 8,056 | 97,914 | 1.3 |

* Workers with taxable earnings at some time during the year.

† Beneficiaries with monthly benefits in current-payment status as of June 30.

‡ Under these two alternatives the numbers differ slightly but the ratios are the same after rounding.

Admittedly the above two items would have little effect on the overall results of the valuations (in terms of percentages of payroll) of the social security system, but millions of dollars are involved. Since the government has strict rules for fiduciary responsibility for private pension plans, it should show the same kind of concern for the funds that it administers.

### CONCLUSION

Anyone who is interested in the future of the social security program should be interested in the material contained in these reports. Admittedly there are many figures and tables and some technical discussion as to economic and demographic assumptions. However, these are easily understood because of the organization of the reports and the clarity of the presentations. No one should be afraid of not being able to understand them.

JAMES L. COWEN

U.S. Congress, *1981 Annual Report of the Board of Trustees of the Federal Hospital Insurance Trust Fund*, pp. 65, and *1981 Annual Report of the Board of Trustees of the Federal Supplementary Medical Insurance Trust Fund*, pp. 57, Government Printing Office, Washington, D.C., July, 1981.

The HI report attempts to peer twenty-five years into the future of hospital costs. Although some have questioned the value of such an obviously speculative exercise, there would appear to be substantial merit in avoiding surprise in solvency of a program disbursing more than $25 billion currently, and probably double that within five years. Moreover, this long-run forecast provides a unique forum to illustrate the impact of continuing high inflation in hospital costs.

The actuaries who prepare these projections attempt to reduce the variability in the forecast by emphasizing the relation between the rate of growth of hospital costs and the rate of growth of the wages that produce tax income to support the program. The difference in these growth rates is in fact the critical assumption to evaluate in assessing the financial condition of the program.

The 1980 report contains three projections representing different levels of optimism or pessimism about the future. The 1981 report has four forecasts—the fourth based on the economic assumptions underlying the president's 1982 budget. These sets of assumptions are identical with those underlying the OASDI report. The methodology employed by the medicare actuaries assumes a certain relationship between general inflation and hospital inflation. Because general inflation is assumed to affect both wages (and therefore tax income) and hospital costs in parallel ways, changes in the inflation forecast only would have little effect on the prognosis for the financial health of the HI system. Therefore, to provide a range of future costs that meaningfully illustrates possible developments, the actuaries present the impact of various differences between wage increases and hospital cost increases. In both the 1980 and the 1981 report it is assumed in the most optimistic forecast that by the year 2000 this difference will drop to 1.3 percent; in the most pessimistic, to about 5 percent. The

1980 difference was 10.5 percent—somewhat higher than typical of recent years because of an unusually sharp increase in use of services.

The HI tax rate in 1981 is 2.6 percent; the tax rate currently scheduled for 2005 is 2.9 percent. Under the most optimistic scenario, the combined tax rate would have to increase to over 4 percent by 2005; under the most pessimistic, to 9.9 percent. As others have observed, the possible demographic problems that hit these social insurance programs after 2010 are not yet reflected in the 25-year HI forecast.

Although the long-term future looks somewhat bleak for the program, the next decade appears to be reasonably, if not lavishly, financed. Under the central set of assumptions, the fund can function under taxes scheduled under present law until about 1990. The 1980 report was somewhat more sanguine in this regard, giving the trust fund another three years of life. The reassessment is due in part, no doubt, to the very large cost increases in 1980 after fairly moderate (by historical standards) increases in 1978 and 1979. Interfund borrowing, currently being suggested as a short-term solution to the imminent difficulties of the OASDI funds would, of course, simply bring the HI program to early grief also.

Overall, the reports are intriguing, if somewhat difficult, reading for those interested in the hospital sector. Table A1 in Appendix A presents an interesting way of analyzing historical trends, including hospital inflation in the decade before medicare—presumably presented as a kind of benchmark. The assumptions underlying the forecasts are clearly and simply summarized in Table A3, along with the consequences. Some historical data in this table would be convenient, but a rough idea of the history can be obtained from Table A1.

In contrast to the HI report, the SMI report presents only a two-year forecast of future operations. This is the result of the one-year-at-a-time financing of the program. This perhaps says something of the consequences of general revenue financing now providing 75 percent of program income. (A five-year forecast is prepared by the medicare actuaries as part of the president's budget.)

The methodology used in forecasting the program is spelled out in some detail in the appendix. In this regard, it is more complete than the HI report. The methodology closely follows program operations. It allows the actuary to correct explicitly for the distorting effect that a fixed deductible has on program inflation rates. It also analyzes the increase in physician fees in great detail. Payments for physician services account for 85 percent of program outlays and therefore the assumptions about these fees are critical in evaluating the adequacy of program financing. Because of medicare's delay in recognizing changes in physician fees, this element of program costs can be forecast quite accurately. For example, the fees charged by physicians in calendar year 1980 will be paid by the program in the period July, 1981, to June, 1982 (after some administrative manipulations). Less certain are increases in costs due to changes in utilization and in services rendered. The relative degree of uncertainty in forecasting is reflected in the range of assumptions used in testing the sensitivity of program solvency to those assumptions. Physician fees are varied only 0.5 percent up and down in performing the sensitivity test. Utilization is varied 2 percent either way for aged beneficiaries and 5 percent for disabled beneficiaries.

The range of results produced by these assumptions is quite broad. The low cost projection results in an excess of assets over liabilities of $3.6 billion by June, 1982. The high cost projection shows a deficit of $0.4 billion on an accrual basis. Nonetheless, the surplus as of June, 1980, was less than the surplus forecast in the 1980 report under high cost assumptions, which illustrates the volatility of the program. However, even if the pessimistic set of assumptions should be realized, the cash flow of the program will allow benefits to be paid as bills are presented. This is not the least advantage of financing programs with accrual accounting.

DAVID R. MCKUSICK

National Commission on Social Security, *Social Security in America's Future: Final Report of the National Commission on Social Security*, pp. 414, Government Printing Office, Washington, D.C., March, 1981.

The National Commission on Social Security was an independent, bipartisan nine-member panel of private citizens charged by Congress to answer three fundamental questions:

1. Are social security and its companion programs, including medicare and supplemental security, the best way to provide income maintenance and health care to retired and disabled workers and their families?
2. If not, what program or combination of programs offers a better way?
3. If social security is the best available structure, what should be done to improve it and make it financially sound?

On the basis of its two-year study and analysis, the commission concluded: "The Social Security system is sound in principle and, of all alternatives, is the best structure of income support for the United States." Therefore, the commission concentrated its efforts on answering the third question and recommended many changes intended to improve the system and to strengthen it financially.

The recommendation that received the most publicity was the proposal to finance one-half the cost of the hospital insurance program (Part A of medicare) by general revenues. To help provide the needed general revenues, the commission proposed that a 2½ percent surcharge be added to personal federal income taxes.

It should be noted that the 2½ percent surcharge initially would produce only about two-fifths of the amount of general revenues needed to finance one-half of the HI benefits. Therefore, this recommendation would require an increase in existing budget deficits and ultimately require an increase in general revenue taxes likely to be substantially larger than the 2½ percent surcharge indicated.

The National Commission also recommended that the combined employer and employee tax rate should not exceed 18 percent of payroll. If the combined rate should reach that level, as is projected, once the baby boom generation retires, using "intermediate assumptions," the excess over 18 percent would be financed by general revenues.

These financing recommendations aroused a great deal of controversy within the commission and ultimately were approved by a bare majority vote of five to four. At the same time that the National Commission was studying this issue, another major study group, the President's Commission on Pension Policy, also considered social security financing. After concluding its deliberations, the President's Commission strongly opposed the use of general revenues to finance social security benefits, including HI benefits.

Returning the favor, the National Commission strongly opposed the major recommendation of the President's Commission. The President's Commission recommended a mandatory universal pension system under which employers would be required to establish and fund private pension plans for their employees. The National Commission concluded that we already had a mandatory system, namely social security, and considered it "neither necessary nor desirable for the Federal government to set up and enforce a second separate system to achieve similar goals."

The social security program is confronted with major long-range financial problems because of demographic developments in the United States. Those developments involve increasing life expectancy, the baby boom generation, and the subsequent decline in birth rates, resulting in what is referred to as the baby bust. Because of these developments, benefits as a percentage of payroll are projected to increase to two to three times their current levels once the baby boom generation has fully retired.

To help solve this problem, the National Commission recommends that the "normal retirement age" at which unreduced benefits are payable be gradually increased from age 65 to age 68 over a twelve-year phase-in period beginning in the year 2001. The age requirements for other benefits, including early retirement benefits and medicare eligibility, would be increased in tandem. While the changes would not take effect until after the turn of the century, the commission recommended current enactment to enable individuals and their employers to plan accordingly.

While the long-range financing problems are the result of demographic developments, the short-range financing problems are the result of unexpected adverse economic conditions. In particular, CPI-increased benefits have grown much more rapidly than payroll taxes because CPI growth substantially exceeded average wage growth during 1979 and 1980.

The commission considered this problem and recommended an approach to benefit indexation that would help protect the solvency of the program from the consequences of adverse economic conditions. More specifically, it recommended that automatic benefit increases be limited to the smaller of wage and price increases measured over a two-year period. A "catch-up" provision was also recommended that would restore lost benefit increases when wages once again increased more rapidly than prices. If such a provision had been enacted in the 1977 social security amendments, the program would not now be confronted with cash-flow problems.

A very controversial and misunderstood feature of the social security program is the retirement earnings test. A primary purpose of the program is to partially replace earnings lost because of retirement. To determine whether a person is indeed retired, income from employment is considered. For example, a person over age 65 in 1982 will have social security benefits reduced by $1 for every $2 of employment income in excess of $6,000 per year.

The commission recommended that the retirement earnings test be retained. In fact, it recommended that the test be continued until age 72 rather than lowered to age 70 as scheduled by law. It found the test consistent with the purpose of the program and did not feel that the additional costs of eliminating the test were warranted. The Office of the Actuary estimates that complete elimination of the test would increase program costs by $6–$7 billion in the first year and more in future years. Elimination of the test only for those over age 65 would increase costs by $2 billion in the first year.

The commission believed it important to encourage people to continue in the work force and suggested improvements in the delayed retirement credit as being preferable to elimination of the retirement earnings test. Currently, benefits are increased by 3 percent per year for each year a person defers retirement beyond age 65. The commission proposed that the delayed retirement credit be increased, suggesting several alternative approaches more comparable to actuarial-equivalent factors. For example, a person retiring at age 68 would receive a benefit of 124 percent of the age 65 benefit, rather than 109 percent as provided by current law. The cost implications of this liberalization would be moderate because a relatively small portion of retirees now defer receipt of benefits beyond age 65. Under several of the alternatives, no additional costs were projected, since modest reductions in the early retirement reduction factors, such as 78 percent rather than 80 percent at age 62, were also proposed.

Another area of controversy involves mandatory, universal social security coverage. Like virtually every major study group that has considered this issue, the National Commission concluded that mandatory, universal coverage was both desirable and feasible. It proposed that such coverage be achieved generally on a new employee basis for OASDI benefits. It also recommended the elimination of disproportionately large "windfall benefits" resulting from second careers of short duration combined with a benefit formula favoring low-wage earners. In addition, it proposed elimination of the option that permits groups to withdraw from the social security program.

The commission broke new ground when it proposed elimination of one additional windfall benefit generally overlooked by other study groups. That windfall involves the fact that virtually everyone qualifies for HI benefits, either as a spouse or through some covered employment, but persons not covered by social security in their government or nonprofit employment do not share the responsibility for financing those benefits. To remedy this significant windfall problem, the commission recommends that everyone be immediately required to participate in the HI program whether or not they participate in the OASDI program.

The social security program has been criticized for discriminating against women. The commission concluded that there was no sex discrimination per se but recognized that certain aspects of the program designed for social adequacy purposes—for example, the spouse benefits—are a source of some of the complaints of inequitable treatment. A number of major program changes such as "earnings sharing" and a "double decker" system were considered by the commission as potential solutions to what has been generally referred to as "women's issues." The commission concluded that such fundamental program changes would create confusion and a new set of perceived inequities. Therefore, it alternatively recommended two changes within the current system that will generally benefit women.

First, it recommended an increase from thirty to thirty-five years in the maximum number of years creditable in determining the special minimum benefit for long-service, low-wage earners. In conjunction with this change, service credit of up to ten years would be granted for care of children under 6 years of age. Second, widows and widowers younger than age 60 would have their benefits increased by average wage increases rather than price increases to age 60. It is assumed that wages will grow more rapidly than prices, thereby producing larger benefits.

There were a large number of other recommendations generally producing benefit and eligibility liberalizations in such areas as the disability insurance program, the medicare and medicaid programs, and the supplemental security income program. These proposals can generally be characterized as "expansionary," and little recognition was given to fiscal constraints that are even more apparent following enactment of the Economic Recovery Tax Act.

The recommendations made by the commission would cost the federal taxpayer an additional $75.8 billion during the five years beginning with 1982. In addition, the recommendations would add $18.4 billion in costs to be financed by the states. These "expansionary" recommendations are likely to be of little current value to Congress and the administration as they attempt to find appropriate solutions to our current fiscal problems and substantial deficits.

The commission claims that its recommendations will restore long-range actuarial balance to the social security program. This is highly speculative. It is the reviewer's opinion that the financial soundness of the program depends entirely on the willingness and capability of future generations of workers to pay the tax levels required to provide promised benefits.

The National Commission recommended two significant changes that would reduce future social security costs: first, a gradual future increase in the normal retirement age from 65 to 68; and, second, universal, mandatory social security coverage. Even with these changes, program costs are projected to increase significantly because of demographic developments. For example, buried in the fine print of the report are actuarial projections indicating that, despite these two recommendations, total social security costs may rise to a combined rate of 23.4 percent of payroll once the baby boom generation has fully retired. Those projections were prepared by the Office of the Actuary and the actuaries employed in the Health Care Financing Administration and were based upon "intermediate assumptions." Furthermore, three of the commissioners expressed the opinion that several of those intermediate assumptions may be overly optimistic.

Since there is tremendous resistance and reluctance to increase our current combined payroll tax rate of 13.3 percent despite predicted short-term cash-flow problems, more serious consideration should have been given to whether our children and grandchildren will be both willing and able to support a level of benefits requiring payroll taxes almost twice as high as those currently being paid. The baby boom generation will pose tremendous financial problems for the social security program. The recommendation to increase the normal retirement age is certainly an action that would help to solve those problems, but additional actions beyond those recommended by the National Commission may be warranted as well. If warranted, now is the time to make changes in benefit promises to the baby boom generation while there is still time for that generation to plan accordingly.

JAMES R. SWENSON

A. Haeworth Robertson, *The Coming Revolution in Social Security*, pp. xxi, 376, Security Press, McLean, Va., 1981, $19.75.

This book is an important addition to the literature on social security with actuarial authorship. As other chief actuaries have done in the past, Mr. Robertson articulates an authoritative and informative overview of the structure and operation of social security. Little is taken for granted, and each topic is lucidly and carefully analyzed, often providing new insights for this reviewer. The book should contribute substantially to clarifying public understanding of the benefits and financing of the various programs.

Part 1 consists of an introductory chapter entitled "The Slumbering Giant Awakens." Benefits and expenses have risen from less than $1 billion in 1940 to $138 billion in 1979 and are headed toward a projected $387 billion in 1990. But, as the author remarks, what social security pays out in benefits it must first collect in taxes. The maximum employee-employer combined tax is projected to rise from $3,175 in 1980 to $8,078 in 1990, and the average combined tax in 1990 is projected to approximate $3,000. The huge and growing outlays for benefits and the concomitant heavy tax burdens are becoming questioned more and more by the public who pay the taxes but have little understanding of the scope, rationale, and size of the benefits. The author considers the most serious threat to social security in the immediate future to be this widespread public misunderstanding. To assist in reducing such misunderstanding, Part 2 of the book presents basic information about social security in its present form. In the author's words, "If we do not gain a better understanding of our Social Security program and then either accept it or change it to satisfy our desires, the consequences are frightening."

Part 2 starts off with an overview of social security. In discussion of what is social security, the author confines it for purposes of the book to the following systems financed primarily by payroll taxes: old-age and survivors insurance (OASI), disability insurance (DI), and medicare consisting of hospital insurance (HI) and supplementary medical insurance (SMI). The chapter concludes with the following statements: "Any overview of Social Security reveals it to be almost overwhelming in size and complexity. Directly or indirectly, Social Security touches the lives of virtually every resident of the U.S., and it is startling to become more aware of its growing influence on our lives, individually and collectively as a nation."

The next chapter, "Social Security Benefits," in fifteen pages succeeds in giving a good general description of the type of benefits payable, how their amounts are determined, and who is eligible to receive them, without going too far into myriad details.

Chapter 4, "How Much Do Social Security Benefits Cost?" is a key chapter, as it introduces a major actuarial function for social security, namely, long-range projections of benefit costs. (It is fair to say that such projections owe their initial development and extensive application to a former chief actuary, Robert J. Myers.) The cost in any given year is defined simply as the amount paid in benefits and expenses for that year. The chapter culminates in a table and chart of projected expenditures for benefits and administration of social security (including OASDI, HI, and SMI combined) under alternative demographic and economic assumptions, expressed as a percentage of projected effective taxable payroll. These highlight the sharply increasing percentage costs projected for the first half of the next century. Despite the visual simplicity of the chart, Mr. Robertson believes that these long-term projections and their significance are not widely comprehended by the public and the government.

The remaining three chapters of Part 2 concern financing. Because social security is now more universal in coverage than it was initially, and the relation between benefits and taxes paid is more tenuous, the author questions whether payroll taxes should remain the primary source of income. There follows discussion of current cost funding and advance funding. In the final chapter of Part 2, "actuarial deficits" are presented as the present value of the year-by-year spreads over the next seventy-five years between projected expenditures and tax income, less the trust fund on hand. These actuarial deficits are estimated as \$0.8 trillion (OASDI), \$2.5 trillion (HI), and \$1.4 trillion (SMI), for a total of \$4.7 trillion. This is an open-group calculation. An estimate of the combined unfunded accrued liability" for the closed group of present workers and beneficiaries is even higher, \$6 trillion. (Further insight into these estimates can be obtained from Actuarial Note No. 97, *Some Effects of Fully Funding OASDI*, by Joseph A. Applebaum [Office of the Actuary, Social Security Administration, 1979].)

This reviewer would not argue for the increased taxes and mammoth accumulations required to completely fund the accrued liabilities, but recognizes that the actuarial deficits are warnings that must be heeded. The year-by-year projections of expenditures and trust fund operations should remain a primary means of communicating what social security entails in costs for the future. Another useful means would be the presentation of the present value of benefits in current payment status (as appears from time to time in studies prepared by the Office of the Actuary), together with a projection of the year-by-year present values to be incurred for new beneficiaries. In other words, the terminal funding accrued liability would be calculated, and terminal funding annual costs would be projected. These figures would alert Congress and the public to the obligations already undertaken, or to be incurred, for beneficiaries, and would provide a second view of the obligations implicit in social security.

On page 98 the author quotes section 1104 of the Social Security Act as providing that "the right to alter, amend, or repeal any provision of this Act is hereby reserved to the Congress." At some stage, however, it may be necessary for Congress to recognize formally its obligation to current beneficiaries and, even further, its obligation for all accrued benefits, if confidence in social security is to be maintained.

The problems of social security in the next century, though onerous, should be kept in perspective. We must first survive this current nightmare of potential nuclear war, we must sooner or later scale down the arms race, and we must find an answer for inflation. The huge funds now devoted to military purposes may some day be available for more humane programs such as social security. The long-range projections now utilized for social security may some day become a starting point for other long-range economic and demographic projections. In particular, we may in the future know more about the worker population needed to carry on our economic development at a good level, and by immigration or other means move toward achieving that population, and, as a by-product, stabilize the financing of social security.

Part 3 has eighteen chapters of commentary on selected topics. The first of these, "Public Understanding of Social Security," enlarges on the earlier theme in Part 1 concerning the critical need for such understanding. This is followed up in chapter 9, "The Need for a Periodic Benefit Statement." To those who would argue the impossibility of providing such statements to covered individuals, the author might say this is an admission that the system is too complex to be understood and administered.

Chapter 11, "Do We Get Our Money's Worth from Social Security?" analyzes the question from several points of view. From the viewpoint of the nation as a whole, taking into account only the dollars involved, one concludes the answer is yes. From the viewpoint of a particular individual, the answer is, "No—some get more and some get less." From the viewpoint of a generation, past generations have done well, the generation currently entering the work force will do somewhat less well, and future generations may receive less than the equivalent of their employee-employer taxes. The final viewpoint relates to whether the program is appropriate to society's needs. With regard to the next forty years, the author's answer is, "No, not unless we change the program."

Only one other chapter of Part 3 will be commented on in detail here, namely, chapter 24, "What Is the Outlook for Social Security?" The author's views are summarized in the following statements:

1. Taxpayers must become accustomed to paying higher taxes for social security unless benefits are reduced substantially from current levels.
2. It seems unlikely that the payroll tax will continue to be the primary source of tax revenue for the program.
3. All state and local government and federal civil service employees will eventually become participants in the social security program.
4. Beginning about twenty-five to thirty-five years from now, employees will be working longer and retiring at higher ages.
5. Social and economic changes in the nation will result in substantial revision of the program.
6. If the nation experiences sustained inflation at relatively high levels, it is likely that the portion of an individual's economic security needs that are met by the private sector will decrease over time.
7. The medicare program as well as the nation's entire health care system will be changed beyond recognition during the next twenty-five years.

The remaining chapters of Part 3 provide much food for thought about social security.

In Part 4 of the book, the author states the following set of principles for a revised social security:

1. An individual should have freedom of choice to the fullest extent possible consistent with the interest of the nation as a whole.
2. An individual should be afforded maximum opportunity and incentive to develop and utilize his abilities throughout his lifetime.
3. A government (federal, state, or local) should provide those benefits and only those benefits that an individual cannot provide for himself. In meeting this responsibility, the government should become involved to the least extent possible, consistent with the interest of the nation as a whole.

The author criticizes current social security in failing to comply with these principles in many, sometimes subtle, ways. He proceeds then to offer an alternative "Freedom Plan" to apply to those aged less than 45 by July 4, 1984, with continuation of present social security and taxes for those then aged 45 or more. In barest outline, the Freedom Plan consists of the following:

1. A mandatory senior citizen benefit program providing from age 70 a monthly benefit of uniform amount to each resident citizen regardless of earnings history, marital status, or financial need.
2. A program of indexed Freedom Bonds to provide a supplemental means for an individual who comes under the Freedom Plan to save for retirement.
3. Cost-of-living supplements, after age 70, for retirees under all pension plans.
4. No death benefits for those individuals covered by the Freedom Plan, except in connection with the optional Freedom Bond plan.
5. Disability and medicare benefits adapted to the senior citizen benefit program.
6. Earmarked general revenue as a main income source.

As one who had some contact with W. R. Williamson on social security matters, this reviewer believes Mr. Williamson would have approved thoroughly the principles and much of the substance of the Freedom Plan.

There are, however, many things that the reviewer would question about the Freedom Plan, as no doubt the reader may, also. Nevertheless, the plan suggests some goals to which, in perhaps modified form, social security may evolve over a period of years, instead of having such a break on July 4, 1984. The automatic increases under present social security provide a basic and general protection against inflation that seems more acceptable to this reviewer than cost-of-living adjustments (unless limited) provided from general revenue for all pensions to individuals above age 70. However, as in some other countries, the idea might lead to the development of a national system of indexed retirement annuities to provide a second tier beyond the senior citizen benefit. Alternatively, by passing on the inflation component of investment earnings on funds for retirees, employers could decrease the erosion of pensions by inflation. This would imply the establishment of reserves for retirees based on real rather than inflated rates of interest. The savings of the individual through homeownership and personal investments also carry some inflation protection under current conditions, and may lessen the need for Freedom Bonds. There is also a question whether death benefits should be so completely changed for those coming under the Freedom Plan, instead of retaining for them some basic protection against the consequences of premature death. The cost of the whole program, including cost-of-living adjustments for pensions (which the author excludes in his comparison with projected social security costs), might well be as great as projected for the current system. Finally, there are many problems in connection with general revenue financing.

The book concludes with an Appendix entitled "Summary of Principal Actuarial Assumptions Used in Cost Projections," Notes (on certain chapters), and an Index.

The author has provided a store of information and much insight concerning social security, and has made a strong case for improving public understanding and public planning for it. The book is a significant contribution by an actuary to the debate on social security and deserves a wide reading among actuaries and the general public. The author has offered one solution for the future development of social security. His book is a challenge to improve on that solution.

CECIL J. NESBITT

A. Haeworth Robertson, *The Coming Revolution in Social Security*, pp. xxi, 376, Security Press, McLean, Va., 1981, $19.75.

Mr. Robertson, who was chief actuary of the Social Security Administration in 1975–78, has written a dual-purpose book that should be of interest to a variety of audiences. The first portion, consisting of Parts 1–3, which is approximately 80 percent of the total text, describes the current OASDI and medicare programs in considerable detail, while the second portion (Part 4) proposes a drastically new system in lieu of these programs.

The approach taken in Parts 1 and 2 is to give a broad description of the social security program and, in particular, its financing. As to the latter, two chapters give an excellent description of various financing methods for social insurance programs, especially as to the meaning and significance of actuarial deficits and accrued liabilities as they relate to the social security program.

The eighteen chapters of Part 3 give detailed comments on various selected topics. These include broad ones, such as whether there is sufficient public understanding of social security, whether people get their money's worth from the program, whether there should be universal coverage (or, in the absence thereof, whether organizations that have the option of coverage should opt in or opt out), and what the outlook is for social security and whether it can be abolished or changed drastically. There are also specialized chapters on such subjects as the retirement earnings test, equality of treatment of men and women under social security, integration of private pension plans, the situation for those with maximum covered earnings, and ways of "taking advantage" of the program (by no means in devious ways!).

As might have been expected, Mr. Robertson's description of the provisions of present law is quite exhaustive and factually almost perfect. There are, however, a few minor errors and omissions, such as stating that earnings before age 22 cannot be used in the benefit computations (p. 29). Also, the examples given as to the disability benefits payable were for persons coming on the roll in January, 1980 (pp. 209–10, 234–36, 277); thus, they did not take into account the effects of the 1980 amendments, which significantly changed the disability benefit provisions and decreased the amounts payable (so that the author's criticism of the excessive benefits payable in some cases is not justified). Further, the figures given as to the illustrative benefits for a disabled worker who had maximum taxable earnings and who was first eligible to receive disability benefits in January, 1980, are incorrect, because they were not computed using 1979 earnings. If this had been done (and such earnings were at the maximum), the figures would have been significantly higher (e.g., the highest amount would have been $596.30 instead of $552.40).

As a very minor matter (but one which occurs in other publications), the maximum benefit payable to a person retiring at age 65 at the beginning of 1980 (p. 31) was not $572.00 (based on maximum covered earnings in all years after 1950), but rather could have been as much as $812.70 (for a person who had maximum covered earnings in some years but who had a "disability freeze" during most of the period after 1950).

Unfortunately, one very widespread statement of "conventional wisdom," which is actually completely fallacious, is repeated without proof or source: "For approximately 50 percent of all American workers, their Social Security tax is greater than their federal income tax" (p. 3). As Actuarial Note No. 102 of the Social Security Administration shows, this is not the case. As a matter of fact, for relatively few families (perhaps 20–30 percent, according to a study made by the research staff of the Social Security Administration) are social security taxes currently larger than federal income taxes. Moreover, quite surprisingly, such a situation was much more common in the late 1930s than it is today! (It should be noted, however, that the "50 percent" statement is correct—based on a study by Pechman, Aaron, and Taussig of the Brookings Institution in 1968—if the employee is considered to be paying the employer tax out of his or her own pocket, as well as the employee tax, which this reviewer believes is not a proper assumption.)

The author also states that this situation of people paying more social security taxes than income taxes is becoming increasingly common (p. 108); although this was generally the trend up to 1970—social security taxes were, over the years, rising more rapidly than income taxes—it was not true after 1970, when the relationship remained relatively constant (see Table 4 of Actuarial Note No. 102). Also, a subsequent study indicates that, under the new tax reform legislation enacted in August, 1981, this situation will not change significantly in the 1980s.

One of the most important of Mr. Robertson's tenets is that social security is so complex that people cannot be expected to understand it. This reviewer disagrees to some extent on this matter. A survey prepared for the National Commission on Social Security showed that a majority of both retired and nonretired respondents correctly answered a series of questions concerning social security. Moreover, the fact that people do not understand a complex technical matter is no indication that it does not serve them well or that it should be abolished—as examples, note the complexities of private insurance policies and private pension plans (let alone the many other elements of our modern industrialized lives, such as automobiles and television).

Mr. Robertson presents information as to the "actuarial deficits" over a seventy-five-year valuation period of the three long-range payroll-tax-supported programs (OASI, DI, and HI)—representing the excess of the present value of future outgo over the value of future taxes and the fund on hand. This concept for these three programs represents the long-term insufficiency of payroll-tax-rate income (or, alternatively, the excess cost of benefit payments), and it is not related to any obligation on the general fund of the Treasury.

He then attempts to define such a concept for the SMI program as being the excess of future outgo over future income from enrollee premiums (which difference is to be met from general revenues). In this reviewer's opinion, such a concept of an "actuarial deficit" for SMI is not applicable, because the program is really one-year term insurance. The resulting figure is a measure of governmental costs, not an actuarial deficit. Further, it is important to note that, in recent years, SMI has been actuarially sound under the concept generally applicable to private health insurance—namely, that the fund on hand on the valuation date is at least as large as all accrued, but unpaid, claims.

Moreover, it is not meaningful to obtain the present value of a stream of general revenues payments and then refer to the result as an actuarial deficit. Certainly, such a procedure is not followed—and would not be appropriate—in the case of other governmental programs, such as public assistance, national defense, and public schools.

Part 4, which may be of most interest to students of social security, presents Mr. Robertson's proposal for replacing OASDI with a completely different plan. He intentionally does not specify all details of his proposal but rather presents a broad, general outline. Mr. Robertson believes that a new program is necessary for several reasons:

1. Social security is too complex, and the general public cannot understand it. Consequently, participants often do not know what level of benefits to expect from social security or, conversely, to provide for themselves. Mr. Robertson believes that this situation can lead to greater dependency on social security than is desirable.
2. It trespasses upon personal lives "by imposing an unnecessary strait jacket of behavioral standards" as to such matters as when to retire and whether or not to marry.
3. It discourages personal savings.
4. It combines the elements of individual equity and social adequacy, but it can mislead some participants into believing that their taxes "purchase" their benefits.

As to the last point, this reviewer does not agree that a mixture of individual equity and social adequacy is undesirable. After all, the same situation occurs in most private pension plans, as among different age groups and as between single and married persons when nonactuarial survivor benefit options are available.

Mr. Robertson's proposed plan, insofar as retirement benefits are concerned, consists of the following four parts:

1. A mandatory program, financed from general revenues, for persons under age 45 on July 4, 1984. This would pay a uniform monthly benefit to all resident citizens aged 70 and over, possibly with a prior-residency test. The amount would be the equivalent of about $250 per month in 1980, adjusted for future changes in the general wage level. The benefit would not be subject to income tax.
2. A continuation of the present OASDI system for all persons aged 45 and over on July 4, 1984.

This would be done not only as to retirement benefits, but also as to disability and survivor benefits.

3. A voluntary government bond program available at ages 45–69 for all persons covered under the proposed new mandatory benefit program (but not for those continuing under OASDI). Such bonds could be purchased in amounts up to 10 percent of taxable earnings or, if greater, 10 percent of nationwide average earnings. The bonds would not pay any interest whatsoever, but the face value would be adjusted to keep pace with rising prices or wages (no definite decision on which to use is made by the author). The proceeds of the bonds would be available at any time after age 60 or upon prior disability or death and would not be subject to income tax.
4. Cost-of-living supplements for private pension plans would be payable, but only with regard to benefits after age 70. These would be financed entirely from general revenues and could be applicable to all pension plans beginning in 1984.

As to disability benefits for those no longer covered by OASDI, the same benefits would be available as for retirement under the proposed mandatory program. Some recent period of time spent in the paid labor force (and possibly of residence) would be required. The disability would have to be total and permanent, and there would be a twelve-month waiting period before benefits would begin. The benefits would be financed from general revenues.

No young-survivor benefits would be provided with respect to those persons covered under the proposed mandatory retirement/disability plan. Mr. Robertson believes that all but a few persons will make appropriate financial arrangements for their survivors and that a residual welfare program could handle the few hardship cases.

Mr. Robertson proposes that medicare (possibly in a revised form) should be continued both for the age cohort for whom OASDI would be maintained and for those receiving retirement and disability benefits under the proposed mandatory plan. However, the financing would be entirely from general revenues.

Mr. Robertson gives, in eleven pages, a broad, general treatment of the cost aspects of his proposal as against the cost of the present OASDI and medicare programs. The resulting costs are significantly lower—by about 25 percent relatively some forty years from now and thereafter. This is largely because of the lower benefit level and the higher minimum retirement age. However, the projected expenditures do *not* include the general revenues cost of the optional bond program or the cost-of-living supplements for private pension plans. Little indication is given as to how the huge amounts of general revenues needed for the various parts of the proposed plan would be obtained.

Turning back to the question of whether OASDI is a "good buy," Mr. Robertson points out that current new entrants receive benefit protection that has a value about 15 percent higher than that of the combined employer-employee taxes under present law (p. 134). Under normal circumstances, if the system is to be on a self-supporting financing basis, this situation cannot prevail for all future groups of new entrants. In the long run, for new-entrant groups in a self-supporting financing system, that ratio *must* be less than 100 percent (although, it is hoped, always well above 50 percent, so that the covered workers have benefit protection with a value in excess of that of their own contributions). The explanation of the 115 percent ratio for the current new-entrant group is that the present tax schedule (which is on a graded basis until 1990) is too low over the long run, certainly beginning some forty years hence.

Thus, if an adequate tax schedule is involved—whether or not on a current-cost basis—the time will almost certainly come when this ratio must fall below 100 percent. If a current-cost basis is involved, I estimate, using data from the Social Security Administration, that the ratio would eventually be about 80–85 percent. For further information on this somewhat unusual situation, see my paper in the *Transactions* of the 1980 International Congress of Actuaries.

This book will certainly be interesting and provocative reading for both actuaries and other individuals. The chapters on the general nature of the current social security system will refresh knowledge, and perhaps bring up new issues, for those who have had a general acquaintance with the system in the past.

This reviewer is constrained to say that certain approaches taken in the book seem somewhat too dramatic—for example, the use of the term "Freedom Plan" and of the Orwellian aspects of an effective date of July 4, 1984. This reviewer is disturbed by the implications of the statement on the dust jacket that this is "the first authoritative book that has dared reveal the startling facts and figures that are necessary to understand and evaluate Social Security." Certainly, most of these "facts and figures" have been widely available in the past, not only to the actuarial profession, but also to the general public, as evidenced by numerous governmental and other publications as well as by the work of various advisory groups.

Further, this reviewer cannot agree with the author's apparent belief that the social security program, which is supported in large part by a substantial majority of the citizenry, is destructive of freedom and democracy. This view is evidenced by Mr. Robertson's use (on p. 308), and his stated support, of the prediction by George Orwell that we will be "completely engulfed by Big Brother by 1984" as implying that this will occur unless social security is abolished as he proposes.

This reviewer believes that Mr. Robertson's proposal for eliminating the social security program and substituting a simplistic plan (both as to its provisions and as to its financing) is not necessary or desirable. The proposed benefit level is somewhat too low for those with earnings at about the average level and lower, for whom lifetime coverage under private pension plans is not very likely. The method of financing—involving huge amounts from unspecified sources of general revenues—does not provide sufficient financial controls or result in adequate public understanding of the costs involved.

Rather, this reviewer is convinced that the present social security system should be (and will be) continued in its present general form over the decades ahead and that this is in the best interest of the nation. What is needed is a system that provides basic benefits at a floor-of-protection level for the entire populace, on which supplementary protection through the private sector where needed can, should, and—in all likelihood—will be built and that will continue to be financed by direct, visible payroll taxes. The present program, especially as it would be modified by the proposals of the Reagan administration, will accomplish this result.

ROBERT J. MYERS

Robert J. Myers, *Social Security*, 2d ed., pp. 925, Richard D. Irwin, Inc., Homewood, Ill., $20.00.

The second edition of *Social Security* is a major reorganization and revision of an important work that first appeared under the same title in 1975. The 1975 edition is in turn an updating of Mr. Myers's 1965 book entitled *Social Insurance and Allied Government Programs*. Mr. Myers's earlier versions of this very complete work have been recognized as the authoritative texts on United States social insurance and related matters. The 1981 edition will enjoy the same reputation. Much has happened to the statutory law since 1975, and the new edition reflects these changes; but at the same time it brings the reader up to date as to new problems and new thinking that have emerged since the mid-seventies.

Mr. Myers's writing has always been characterized by very close attention to both accuracy and completeness. He includes in the second edition the history of social security development and describes all the social insurance programs in this country (not just what most Americans think of as social security).

Social insurance in the United States has become an exceedingly complex matter, and the second edition of *Social Security* is a formidable volume. Happily, much of the detail, important to real students of the subject but distracting to the more casual reader, has been relegated to footnotes and appendixes. Most of the latter appear at the end of the chapter to which they are related. Only five are typical appendixes to the whole work.

The basic organization of the new edition will be familiar to those who have studied the first edition. Part I is a relatively brief introduction. Part II is made up of four chapters on the old-age, survivors, and disability insurance (OASDI) system. Part III includes four chapters on medicare, and another chapter on actuarial cost estimates for both OASDI and medicare. Part IV is a description of allied programs that have social insurance or social assistance characteristics but are not within what most Americans think of as social security. Part V examines foreign social security programs.

The opening chapter of Part I serves as an introduction for all that is to follow. Mr. Myers here makes it clear that he uses the alliterative phrase social security in a broad sense to include several types of social insurance or national insurance programs, wherever and whenever they have developed. In general he defines social security, as he intends to use it, as including all "measures for economic security under government auspices." Taking his definitional framework from the International Labour Organization's 1951 Convention No. 102, "Minimum Standards of Social Security," Mr. Myers enumerates nine branches on the social security tree.

Three of these branches, or types of programs, involve the long-term risks of loss of income through old age, death, or disability. The American OASDI system is one involving these three, and these three only.

Unemployment benefits, sickness benefits (compensation for loss of work time), medical care, and maternity benefits are the four branches that Mr. Myers classes as covering short-term risks.

The other two branches enumerated are family allowances (payments to families with young children) and industrial injury benefits (workers' compensation is the terminology used in the United States).

Besides these nine branches, there may be income supplementation programs applicable to part or all of the population on the basis of a means test. Mr. Myers categorizes these as social security plans even though they do not fall specifically within any of the nine branches. In the United States such plans (including supplemental security income, aid to families with dependent children, and food stamps) are most likely to carry a "welfare" label. The author includes them within the "social assistance" subset of social security, while most of the nine specific categories he would treat as "social insurance."

It is to be noted that although Mr. Myers would not use the term "social security" to cover plans voluntarily undertaken within the private sector, he would include government-mandated employer plans or government-subsidized voluntary insurance, and plans where the government's role is that of employer.

Still in Part I, Mr. Myers discusses the terms "individual equity" and "social adequacy," pointing out that social insurance programs are often premised on a blend of those often conflicting concepts, while social assistance is based primarily on the latter. He includes sections on "Social Insurance as 'Insurance' " and "Social Insurance as 'Welfare' " to point up continuing arguments as to whether social insurance is insurance, is welfare, is both, or is neither. His view, and that of this reviewer, is that social insurance systems properly carry the insurance label, that social assistance systems are correctly called welfare, and that social security systems (in the broad sense in which Myers here uses this term, but not in the more restrictive sense in which the term is often employed in the United States) can be either or both.

For many readers Part II, which constitutes about one-third of the entire volume, is the heart of Mr. Myers's work. Chapters 2–5 describe the OASDI system as set forth in Title II of the Social Security Act in most of its voluminous detail.

Chapter 2, "Basic Principles and Present Provisions of the OASDI System," begins with a discussion on each of five major principles of the OASDI system: benefits based on presumptive need, floor-of-protection concept, individual equity versus social adequacy, earnings-related benefits, and self-supporting contributory financing. Then the coverage provisions of the OASDI system are described, followed by the benefit and financing provisions, and about one page on administration. Thirteen different appendixes provide additional detail.

In chapter 3, the forty-five-year evolution of the OASDI system is described, from its beginning during the Great Depression through the last major change in 1977, then on to the relatively minor changes through 1980. The recent recommendations of the 1979 Advisory Council, the National Commission on Social Security (of which Mr. Myers was an active member), and of the President's Commission on Pension Policy are included. The chapter ends with a section on legislative procedures and six more appendixes on current issues.

Mr. Myers, as a former chief actuary for the Social Security Administration, has always been especially interested in the financing side. In chapter 4, "Financing Basis of the OASDI System," he develops his view of what constitutes actuarial soundness in a social insurance system. This chapter also includes a history of how the financing evolved over the years and provides a summary of opposing views.

Chapter 5 will be especially interesting to those who are concerned about OASDI's future. Mr. Myers starts out with a classification of views about social security that he labels "laissez-faire," "expansionist," and "moderate." The author puts himself in the moderate camp, as distinguished from the two extremes. He summarizes some recent surveys of the public view of social security. Directions in which OASDI might go in terms of coverage, benefits, and financing are then discussed, not only from the background of Mr. Myers's personal beliefs, but from the expressed views of others. Some of the more cogent matters he considers are coverage for government employees now outside the system and the possibility of raising the retirement age. Very recent proposals of the Reagan administration are not included, because they were not made early enough to meet the volume's deadlines.

Part III does for medicare what Part II does for OASDI; but because the history is shorter and the controversial issues fewer, the medicare text is only about a third as long. The first four chapters are the medicare version of the OASDI chapters in Part I.

The author points out that although the HI (hospital insurance) part of medicare has financing not all that different from OASDI's, quite different principles apply to SMI (supplementary medical insurance). Here a government-subsidized voluntary insurance program is in being, and there is no payroll tax financing. Among the possible future medicare developments discussed will be found the various proposals for national health insurance, some of which would absorb medicare into a more comprehensive overall system.

The last chapter of Part III, "Actuarial Cost Estimates and Analysis and Statistical Information for OASDI and Medicare," could just as well have been incorporated in Part II or presented as an appendix to Parts I, II, and III. Actuaries and statisticians will find much of value within this chapter, and other serious students of social security will find some of it interesting. The more casual reader, however, may decide to pass by this chapter, especially if the preceding chapters were found to be a little more than he or she could grasp.

Mr. Myers states in the introduction to Part IV: "The social security program examined in Parts II and III does not satisfy all the economic security needs of persons in the United States. Additional programs designed to fulfill specific security needs have been adopted. . . . Part IV looks at the importance of and changing patterns of economic security provided by public assistance programs. Part IV also includes a description of the separate Railroad Retirement system, the important program of Unemployment Insurance and Workers' Compensation, and the existing Cash Sickness benefits programs. The final chapter in Part IV describes the special programs designed for federal, state, and local employees and for veterans of military service."

The reader will be impressed by the size and number of these allied programs, by the lack of coordination among and between them, and by the difficulty in getting reforms accomplished. Programs once thought desirable as fulfilling an important need tend to have a life of their own—even if the original need is no longer demonstrable, and even if a combination with another program would seem to be in the public interest. The allied programs discussed here round out Mr. Myers's very complete study of social security within the United States.

Part V is a relatively short one-chapter summary of social security systems outside the United States. Mr. Myers has made good use of the continuous studies of foreign systems maintained by the international offices within the Social Security Administration, and his firsthand information about many of them as well. Part V gives social security an international flavor, and some readers will find it to be among the most interesting material of the entire work.

Part V begins with a brief overview and history of the international social security scene. Although the phrase "social security" (by now the term by which social insurance and allied programs are known throughout the world) has American origins, the United States was a late starter in the development of social insurance. Most of the countries in Europe, and four in South America, have systems dating back before 1935 when the United States Social Security Act became law. However, the United States system today is as large and as elaborate as any, although in some areas it is not as comprehensive as it is in some European countries.

The 1975 edition of *Social Security* summarized the social security systems of nearly twenty-five countries representing most of the developed world and part of the underdeveloped. Most conspicuously missing were the countries of eastern Europe other than the Soviet Union. The second edition notes important changes since 1975 and adds information on Barbados, Bermuda, Micronesia, and Saudi Arabia.

Although most of the numerous relatively short appendixes appear at the end of the chapter to which they are most closely related, there are five appendixes that apply to the entire volume. Those generally familar with the OASDI and medicare systems as they stand today may find that Appendix D is all they really need, but the flavor of the "whys" as well as the "whats" can be obtained only by reference to the main text.

Mr. Myers was a part of United States social security development from its beginning and served as chief actuary of the Social Security Administration from 1947 to 1970. During those years he wrote widely on the more technical phases of social security. During the seventies Mr. Myers had an academic base outside government, but he continued to inform and to influence by his writing and his testimony before Congress. Both editions of *Social Security* were written during this period. No other person could possibly have written *Social Security,* not only because Mr. Myers is unique as to his knowledge and experience, but also because he has the energy, the patience, and the ability to put such an overwhelming work together.

Since the publication of this second edition, Mr. Myers has once again entered government service. He is now deputy commissioner for programs, Social Security Administration. Though he may have less time to write, Mr. Myers will continue to have an impact on social security as it evolves within the United States.

C. L. TROWBRIDGE

Peter J. Ferrara, *Social Security: The Inherent Contradiction*, pp. 493, Cato Institute, San Francisco, Calif., 1980, $20.00.

Peter J. Ferrara is a Harvard-educated lawyer and economist practicing law in New York City. The Cato Institute is a conservative California-based organization that sponsors and publishes "basic research in social philosophy and public policy." In this book, Mr. Ferrara presents a well-written and well-researched discussion of both the present state of the OASDI system and many of the proposals to modify or replace it. He also presents his own proposal for replacing social security. Although this book is very readable and understandable, it contains several significant factual errors and also many arguments that are based on questionable assumptions.

In the context of several "money's worth" discussions, it is stated repeatedly that workers must forgo their own retirement benefits in order to collect larger auxiliary or survivor benefits; thus, in those cases, they receive no return on their contributions. In fact, the retirement benefit is always paid, and the other benefit is reduced to the difference between the two benefits. The procedure actually followed produces a larger total benefit in those cases involving actuarial reduction or delayed-retirement credits.

Again in the context of "money's worth," it is suggested that the only years of earnings that can be used in the calculation of a benefit are those from age 22 to age 62 (or perhaps 65); thus, no return is provided on taxes paid in other years. The law provides that the highest years of earnings (after indexing, in some cases) are used in the benefit computation, regardless of the worker's age in those years (except for the unusual frozen old-start and transitional-guarantee cases).

Beginning on page 55, there is a discussion of the so-called welfare elements present in OASDI. This term (with all of its negative connotations) is applied to those aspects generally considered to represent "social adequacy" (as contrasted with "individual equity"). A social insurance program must have elements of both present (although the relative emphasis is a matter of opinion, and Mr. Ferrara believes that combining these elements results in an "inherent contradiction"). If the program were based entirely on individual equity, it would not be fulfilling its basic purpose and might just as well be located completely in the private sector. The various social adequacy features to which the author objects (e.g., weighted benefits and family benefits) belong in a social insurance program, because they involve a broad pooling of risks—that is, the risks of having low earnings and of having a family. "Insurance" considered broadly can involve far more contingencies than only the risk of surviving to old age (which the author implies, incorrectly, is the only insurance element of pension plans). In addition, social security provides valuable protection against the risk of inflation, and the book fails to demonstrate how the private sector could assume this risk-bearing function.

A common historical error is included when it is stated that the intent of Congress in passing the 1935 Social Security Act was for the system to be fully funded (p. 24). Actually, Congress required that the system be self-supporting, a requirement that has been satisfied, more or less, to this day. It is also stated that, because social security is not fully funded, it is less secure than private pension plans; however, few such plans (at least, those of the defined benefit type) are, in fact, fully funded at any point in time (and, with inflation, any full-funding goals become harder to attain as well as less essential to actuarial soundness).

Another section and an appendix discuss the incidence of the employer portion of the social security tax. Mr. Ferrara believes, as do many economists, that employees pay all of this tax, and he bases many calculations on the implicit assumption that each employee pays exactly that portion of the employer tax attributable to his or her earnings. In fact, the incidence of the employer tax is a complicated question. The employer has many options for paying this tax besides reducing employees' pay, including raising prices and lowering profits. Even if one agrees that employees in aggregate pay the entire employer tax, no particular employee's share can be determined with certainty.

One chapter discusses the effects of social security on the economy. The discussion relies greatly on the econometric model of Martin Feldstein, whose work was largely discredited when a computer error was found in his model. Moreover, the Feldstein econometric-model approach to determining the effect of social security on savings is invalid, because it assumes that, if there were no social security program, all else in our society would remain the same, and the money that would otherwise have been paid in social security taxes would have been saved. It seems far more likely that, instead of social security, we would have had a greatly expanded public assistance program, which would have required vast amounts of taxes—possibly more than the social security taxes that were paid—and a relatively large share of these would have been payable by the very people to whom Mr. Ferrara directs his enticing appeals to financial self-reliance.

The weakest section is chapter 4, which proposes a theoretical private insurance system to replace OASDHI. Mr. Ferrara attempts to demonstrate that future OASDHI tax payments will be so high that an individual could provide a greater retirement income by investing those amounts, but his arguments contain several flaws. The first is related to the use of future taxes high enough to finance the system under the pessimistic (Alternative III) projections of the 1979 trustees' report. If the economy performs as poorly as projected under those assumptions, it would probably be impossible to achieve the real rates of return required to validate Mr. Ferrara's projections for his plan. As to fertility, it is stated that the ultimate fertility rate of 1.5 is most likely, but that rate is lower than any in American history (in addition, the fertility rate has been rising since 1978). As noted earlier, the employee and employer taxes are combined for purposes of this comparison, implying that each employee pays that portion of the employer tax attributable to his or her earnings.

Even ignoring the use of pessimistic assumptions, the assumed *real* rates of return seem unreasonable. Although the tables in the back of the book are based on rates from 3 to 8 percent, the text focuses on 6–8 percent. These real rates of return are much higher than any money manager will guarantee for long periods into the future; many now are predicting only 1–2 percent. It is stated that such high rates of return have been earned in the past, but hindsight is relied on to devise an investment strategy that proves it. Furthermore, Mr. Ferrara quite willingly predicts that downward trends in fertility will continue indefinitely but that economic trends will reverse. Also, it is stated that the enormous aggregate investment associated with the proposal will not affect the rate of return available by more than 2 percentage points, a questionable assumption.

Mr. Ferrara's projections of retirement benefits under his proposal to replace social security ignore the fact that most workers have gaps in their earnings histories. Because of the dropout-years provision in the OASDI benefit computation, workers receive unreduced benefits even with as many as five years of unemployment. The contributions to the proposed voluntary plan would, however, stop during those periods; consequently, future retirement benefits would be reduced.

Another flaw concerns replacement of the disability, survivor, and health protection under the OASDHI system with private coverage. Mr. Ferrara states that virtually identical coverages either are or should be available from private insurers. In fact, they are not available. No private insurer or pension plan sponsor will (or is able to) guarantee to increase benefits by the full amount of increases in the Consumer Price Index. Thus, one could fairly conclude that this risk is insurable (if at all) only by the federal government. Accepting this condition would, of course, undermine Mr. Ferrara's proposal for a voluntary system.

In conclusion, although Mr. Ferrara has presented an impressive discussion of social security and its problems, his descriptions of those problems are often inaccurate, incomplete, and oversimplified. Many of his solutions—in particular, his proposed voluntary plan—depend on unrealistic assumptions that do not withstand close scrutiny. With so many alternatives to social security being proposed currently, however, this book is useful in presenting such a broad array of the more sophisticated arguments being used against the existing program.

BRUCE D. SCHOBEL

President's Commission on Pension Policy, *Coming of Age: Toward a National Retirement Income Policy*, pp. 131, Government Printing Office, Washington, D.C., February 26, 1981.

In July, 1978, President Carter, by executive order, established a Commission on Pension Policy to review retirement, disability, and survivor programs in the United States and to develop national policies in that area. An interim report was issued in the spring of 1980. This report is the final report of the Carter commission. In addition to the interim and final reports, the Carter commission published hearing records for the thirty-nine days of public and specialty hearings and published an additional twenty-five working papers and a number of technical papers on specific aspects of retirement programs.

The importance of the final report can be illustrated by a brief review of the report issued by the Committee on Corporate Pension Funds appointed by President Kennedy. In its 1965 report, the Kennedy committee set forth three underlying principles:

1. Pensions should be encouraged by tax incentives.
2. The public interest would be served by improving the soundness of financing and the equity provided under private pension plans.
3. Wide latitude should be granted in the private sector so as to permit the programs to meet divergent needs and circumstances.

The Kennedy committee made a number of important recommendations, chief of which were (1) to require graded vesting from fifteen to twenty years of service; (2) to require thirty-year minimum funding certified by an accountant and an actuary, with standards established for actuarial assumptions; (3) to prohibit salaried-only plans; (4) to prohibit participation requirements in excess of three years of service; (5) to impose a maximum dollar limit on benefits and/or contributions; (6) to limit social security integration to one-half of social security benefits; (7) to limit the investment of pension funds in employer securities to 10 percent of the fund; and (8) to increase disclosure on investment activity. Many of these recommendations, of course, were enacted as part of ERISA. Near the end of the Kennedy committee report is the following statement: "The Committee recognizes that the voluntary character of private pension plans is a precious asset in a free society."

By way of contrast, the central recommendation of the Carter commission was that a minimum universal pension system (MUPS) be established for all workers. The system would be funded by 3 percent of payroll contributions for all employees over age 25 with one year of service and 1,000 hours of employment. Vesting of this benefit would be immediate. The program would be phased in over a three-year period, and the benefits would not be integrated with social security. As a result of the MUPS program, the commission was then able to recommend that ERISA's vesting standards should not be charged, since current pension palns that do not provide at least 3 percent of pay carried forward with interest to date of separation as the value of a vested benefit would have to be amended to provide the MUPS equivalent. The commission set the nation's retirement income goal as the provision of 100 percent of preretirement spendable income. This may not be much for the employee on layoff, but, if the goal is ever reached, any active worker eligible for retirement would have little incentive to go on working.

The Carter commission also recommended tax incentives for voluntary savings that are used only for retirement purposes. The commission supported a prohibition on cash-out of pension values in excess of $500. The commission recommended that 50 percent joint and survivor benefits be provided automatically to workers dying in the ten-year period prior to normal retirement and further recommended that both the employee and spouse would have to agree to opt out of this automatic provision. In cases of separation or divorce the pension entitlement earned during marriage should be divisible.

The Carter commission reviewed the social security program and recommended an increase in retirement age from 65 to 68 to be phased in over a twelve-year period beginning in the year 1990. The commission recommended the taxing of social security benefits and the deduction of social security taxes. The National Commission on Social Security (appointed by President Carter and Congress) meanwhile issued its report in February and opposed both the tax change and the MUPS proposals. The Carter commission also recommended extension of social security to all new employees of government and nonprofit groups. Further, the Carter commission recommended that private pension plans should be permitted to increase their normal retirement age in tandem with social security without extension being considered a violation of ERISA benefit accrual and nonforfeiture standards.

Surprisingly, the Carter commission failed to issue the expected "socially redeeming" recommendations. On the matter of ownership and control of assets, the commission, after hearing extensive testimony, merely recommended that Congress and the president continue research and policy development on this issue. On the matter of cost-of-living adjustments after retirement, the commission felt that these adjustments should be encouraged through tax policy but should not be mandated at this time. With regard to integration of private retirement plans with social security, the Carter commission recommended that changes be made in the current rules that would fulfill retirement income goals and result in less complex integration rules. On these and a number of other points, the Citizens Commission on Pension Policy (a shadow commission established by the Pension Rights Center, the Gray Panthers, and others) has taken issue with the Carter commission report for failure to represent the consumer interest. Indeed, the Citizens Commission's appraisal of the proposal for mandatory universal pensions was that it was simply a tool being introduced by the business community as an excuse for cutting back on social security benefits.

Shortly after publication of the Carter commission's final report, the Employee Benefit Research Institute published a study based on precisely the same data used by the Carter commission but without certain of the restraints the commission's staff had imposed on those data for projections. The EBRI study demonstrated that the lack of further growth in pension plan coverage projected by the commission was due primarily to the special constraints that were employed rather than to any significant trends in the underlying data themselves. The Carter commission's executive director has criticized the EBRI results as being biased by a preconceived EBRI conclusion. Ironically, the EBRI study suggests that the Carter commission projections may have been based more on their own preconceived conclusions than on the real-world data and trends.

The proposal for mandatory universal pensions has not met with acceptance in any major political constituency. Industry views it as an added cost; labor unions view it as a means of providing workers in nonunionized industries with a small part of the benefits that the unions have won for their own members, thereby reducing the advantage of unionization; and some of the public interest and citizens' groups have indicated that an increase in social security would be far preferable to a government-imposed 3 percent savings program. On the other hand, some groups in business see opportunities in the sale of insurance policies or mutual funds as a result of the MUPS proposal; some of those in the union sector view additional government-mandated benefits as reducing the benefits they would otherwise have to negotiate for their members; and some citizens' groups believe that the personal direction of the investment of the retirement funds coupled with full immediate vesting makes the MUPS proposal far superior to private pension programs. Finally, there are still a few individuals who enjoy exercising the rights of a citizen in a free society and who resent the mandated expenditure of net after-tax earnings.

The members of the Carter commission were selected by President Carter and presumably reflected his views as to what society should be like in the future. The staff was selected by the commission, presumably with the same criterion, and thus the publications and other documents prepared by the commission reflect a special underlying political philosophy. Had President Carter been reelected for a second term, it is possible that the recommendations of his commission would now be accorded greater weight and have a greater impact on the nation's future retirement policies. However, the central recommendation of a mandatory universal pension system runs counter to President Reagan's belief that government should do less.

Thus, for the remainder of President Reagan's term and possibly for the rest of the decade, few of the recommendations in the Carter commission report are expected to reach fruition. Then again, on their merits, most of them never should.

PAUL H. JACKSON

Laurence E. Coward, *Mercer Handbook of Canadian Pension and Welfare Plans*, pp. 334, Commerce Clearing House, 1981, $25.00.

The *Mercer Handbook* is still the only comprehensive outline that in one volume encompasses all types of pension and insurance plans in Canada. The text is easy to read. The treatment of some areas may appear very simplistic for professionals, but the handbook has been written primarily for businessmen in charge of company employee benefit programs and for the serious student.

The first two chapters provide the necessary background for the uninitiated. Overall, the *Mercer Handbook* touches on all aspects of the pension field from basic considerations of pension plans to funding and legislation. This list of additional topics illustrates the scope of the text:

1. Profit-sharing plans of all types.
2. Medical, hospital, drug, and dental plans.
3. Government programs such as OAS, CPP/QPP, Workmen's Compensation, and provincial plans—OHIP, etc.
4. Individual tax-sheltered plans such as RHOSPs, RRSPs, RESPs, and RRIFs.
5. Group life insurance, disability, and sick pay plans.

Chapters 1–6, 16, and 18 deal strictly with pensions. They are very complete in all matters discussed. The appendixes contain Revenue Canada Interpretation Bulletins and Information Circulars of importance for reference, as well as expectancy tables and interest tables.

Certainly the *Mercer Handbook* contains an abundance of information, and, as a result, in parts it lacks some cohesiveness. Chapter 18, pension benefits legislation, has been separated from all other chapters concerning pensions. Within the section on deferred profit-sharing plans (pp. 122, 123), employee contributions are discussed in a very roundabout manner. It appears as though different authors wrote different parts of each chapter, because several points are mentioned two or three times. In addition, the text appears to finish discussing a topic and then reviews it again in another section.

The *Mercer Handbook* does not describe any actuarial cost methods or their mathematics, such as ABCM and PBCM. However, it does discuss the difference between terminal funding, pay-as-you-go, and advance funding. Also, there is a description of the difference between attained-age and entry-age methods, and *with* supplemental liabilities versus *without*. Perhaps it is wise to omit the description of actuarial cost methods so as not to confuse the reader, since cost methods are dealt with quite adequately in other texts that specialize on this subject.

In many sections the author gives the reader a detailed history of the topic leading up to the present time. This background information is valuable and makes the product or applicable legislation much easier to comprehend.

Although this text is not as thorough as the McGill text entitled *Fundamentals of Private Pensions,* one must emphasize the *Mercer Handbook's* completeness and the necessity to combine all this information together in one book. The *Mercer Handbook* is a must for the library of anyone interested in employment-related benefits in Canada.

DALE RAYMAN

Daniel F. McGinn, *Pension Funding: Actuarial Primer for Corporate Management,* pp. 124, Charles D. Spencer & Associates, Inc., Chicago, Ill., 1980, paperback, $19.00.

Mr. McGinn, in his prefatory remarks, states that the purpose of his book is to provide corporate management with practical insights into the funding of defined benefit pension plans and the use of actuarial techniques in the long-term budgeting for plan costs. He expresses the hope that the text will assist employers in understanding this technical aspect of pension plan operations.

The text will be very helpful to members of corporate management who have some knowledge about pension plan funding and have experience in working with pension actuaries. It will be less helpful to those who lack such knowledge and experience because there is a presumption (unstated) of some prior knowledge.

The text is organized in nine chapters, covering the following areas: "Basic Concepts," "Actuarial Assumptions," "Pension Funding Techniques," "Asset Values for Pension Funding," "Funding Policy," "Unfunded Actuarial Liabilities," "The Actuarial Report," "Dynamic Actuarial Forecasting—a Management Tool," and "Important Questions Management Should Ask the Actuary." There is an appendix containing a specimen actuarial report.

Since it is a primer, the text would have been improved if Mr. McGinn had included an early chapter on the range of benefits that can be provided under defined benefit plans and some commentary on the importance of the quality of the employee data underlying the development of a funding program. He indirectly covers benefits in the chapters on actuarial assumptions and pension funding techniques, but he does not comment on the importance of the quality of employee data.

He makes good use of examples to illustrate important points, and he begins each chapter with either a statement of purpose or a brief definition to provide the reader with an indication of its content. The sample actuarial report in the appendix provides good information regarding content and organization.

For anyone interested in the subject, the book will be a useful reference document.

THOMAS L. WILLS

Howard M. Phillips, F.S.A., *All You Need to Know about Defined Benefit Keogh Plans,* Avery Publishing Group, Inc., Garden City Park, N.Y., $20.00.

*All You Need to Know about Defined Benefit Keogh Plans* can best be described as a manual or "how to" book. The author is a Fellow, but unlike most books written by actuaries, this one is aimed directly at the day-to-day concerns of anyone who comes in contact with tax-qualified retirement programs for sole proprietorships and partnerships (e.g., agents, employers, bank personnel, actuarial consultants). The pages are loose-leaf within a binder.

This can be considered a short book; its actual length of 132 pages would not be considered long in any case, but the basic text and examples end on page 56. A full 43 pages of appendixes are taken up with the existing Keogh law and regulations. There is an 11-page appendix containing defined benefit Keogh plan administrative forms and a one-page appendix containing a form that explains this type of plan to potential prospects (this particular page was missing from the reviewer's copy of the book).

Under the conventional defined contribution Keogh plan, annual contributions on behalf of each employee were limited to the lesser of $7,500 (this has been raised to $15,000 by the 1981 legislation) and 15 percent of compensation. ERISA created the defined benefit Keogh plan, in order to make defined benefit plans available to unincorporated business. The author makes no bones about the primary appeal of these plans, relative to conventional defined contribution plans, for owners of smaller businesses:

1. The plan and the actuarial funding method can be structured to permit much higher (tax-deductible) contributions.
2. It permits the employer to contribute a larger percentage of income for himself than for his lower-paid employees.

Examples are effectively presented to show how these two objectives can be achieved. The author also demonstrates how combinations of defined benefit and defined contribution plans can be used to keep contributions at a high level—first, by accelerated funding under the defined benefit plan, and then, after the maximum contribution falls below that for a defined contribution plan, by making future contributions to the defined contribution plans.

The author also describes how the defined benefit plan can be used to fund the purchase of greater death benefits than under defined contribution plans, but the explanation is complicated and somewhat confusing.

There is a short but effective chapter showing the effect on contributions of plan amendments that change benefits. The author notes that under a defined benefit Keogh plan, benefits may only be increased prospectively, in contrast to traditional corporate defined benefit plans. Another important difference between Keogh and corporate defined benefit plans is that no credit can be given for service prior to the effective date of the plan. In his description early in the book of the essentials of the defined Keogh plans, the author neglects to mention this point (he does mention it in passing later in the book, however). This is an important point, and whereas it might seem obvious to someone with a background in small-employer plans, where the emphasis is on maximizing contributions, it may be less obvious to someone whose background is primarily in the corporate defined benefit plan area.

There is a very short chapter on investment vehicles, which would have benefited from additional fleshing out, and a useful chapter on the administration of these plans, including the duties of the consulting actuary (plus an illustrative fee schedule for actuarial services).

The final section of the regular text deals with common questions associated with defined benefit Keogh plans. The topics include

1. The desirability of this type of plan in a high-interest-rate economy.
2. Funding implications of changing the normal retirement age.
3. Implications of the "Hi-Lo" method of funding (this method is especially useful in periods, such as the present, when future tax rates can be expected to decline).
4. Problems of overfunding. (The text on this last item will need substantial revision as a result of the 1981 legislation.)

The author generally does a good job of explaining these topics; the one problem here is that the table illustrating the relative effects of overfunding on defined contribution as opposed to defined benefit plans may be difficult for the layman to understand.

Overall, the author has to a large extent succeeded in putting down "everything you need to know" about this type of plan (1981 legislation will require some changes in the next edition of the text but should not affect the book's basic structure). The approach is down-to-earth, and the book can be put to good practical use. For the most part, the text can be understood by those without professional employee benefits expertise. This book is a valuable addition to the library of employee benefit plan literature.

ANTHONY B. RICHTER, F.S.A.

Peter F. Drucker, *Managing in Turbulent Times*, Harper & Row, New York, 1980.

Peter Drucker has been writing on management for over thirty years. He is held in the same esteem by students of the art of management that Bob Myers enjoys among students of social security. In this book he exhibits the vigor and insight that have earned him this position. One need not agree with his conclusions, but one can profit from studying his analysis.

To anyone familiar with the current (and apparently the future) unsettled nature of our economic, social, and political environment, this is a troubling book. It is troubling because

1. The turbulent times Drucker identifies require significant changes in management attitudes and practices.
2. Drucker's credibility as an analyst of management is high.
3. Significant change is difficult.

In the introduction Drucker tells us: "This book deals with the strategy needed to use rapid changes as opportunities, the strategies needed to convert the threat of change into opportunities for productive and profitable action and for contribution alike to society, economy, and individual."

In exploring his topic, Drucker has arranged his book into two short opening chapters and two longer, more philosophical chapters. The first two sections of chapter 1, "Managing the Fundamentals," should be of particular interest to actuaries. These sections are called "Adjusting for Inflation" and "Managing for Liquidity and Financial Strength." The author does not offer a precise method by which we may adjust for inflation (indeed, he argues persuasively that precision is not necessary), but he gives compelling reasons why we should do so: "During inflation, however, the figures lie. . . . Money still tends to be considered the standard of value and to be a value in itself, but in inflation this is a delusion. . . . Until this is done, even the most knowledgeable executive will remain the victim of the illusions inflation creates. He may know that the figures he gets are grossly misleading; but as long as these are the figures he has in front of him, he will act on them rather than on his own better knowledge. And he will act foolishly, wrongly, irresponsibly."

Actuaries whose companies have experienced a cash-flow problem due to policy loans may wish they had read Drucker's comments on liquidity a year ago: "The stock market increasingly values companies according to their liquidity rather than by earnings. . . . The stock market is right. In turbulent times, liquidity is more important than earnings."

The treatment of the remaining topics in this chapter is no less dramatic. In "The Costs of Staying in Business vs. the Delusion of Profit" Drucker makes a strong case for including the cost of capital at current market rates in determining earnings and, in passing, censures executive compensation plans that do not do so: "There is also an urgent need to adjust executive compensation to economic reality. As long as executives get extra compensation based on reported 'profits,' they will resist changing the way they report their earnings. Extra compensation based on profits should never be paid until the costs of staying in business have been covered by current earnings. Not to disclose that the genuine costs, the costs of staying in business, have not been earned is fraud. To pay oneself 'bonuses' based on a nonexistent profit is embezzlement."

Chapter 2 is entitled "Managing for Tomorrow," and the theme is this: "In turbulent times, managers cannot assume that tomorrow will be an extension of today. On the contrary, they must manage for change; change alike as an opportunity and a threat." Drucker summarizes this chapter in the final section, "A Scorecard for Managers": "Performance in management, therefore, means in large measure doing a good job of preparing today's business for the future."

Drucker seizes one's attention at the outset of chapter 3 when he states: "None of the headline-makers with which we are so constantly bombarded—neither OPEC nor all the promised shortages of food, metals, or minerals that are now so widely predicted, nor any other 'crises' of the moment—are nearly as important, let alone as real, as the changes taking place in population structure and population dynamics." Drucker calls this chapter "Managing the Sea-Change: The New Population Structure and the New Population Dynamics," and in his positive, confident style tells us how these changes will affect production sharing among nations, new consumer markets, managerial strategies, the labor force, retirement age, organizational structures, job needs in developing countries, and employment practices.

Regarding retirement age, he makes an actuarial observation: "In every developed country, it will have to be a central aim of economic and social policy to keep the ratio between people retired for age and people working at around three to one. This means that in all developed countries the actual retirement age, the age at which people can be expected to stop working, is likely to be closer to seventy-two by the year 1995 than it is to the sixty-five of traditional western retirement, let alone to the fifty-five of the Japanese tradition." He has his ratio upside-down here—he means one to three, which is approximately the ratio of OASDI beneficiaries to covered workers.

In chapter 4, "Managing in Turbulent Environments," Drucker continues to develop the idea that today's and tomorrow's manager face new realities, new challenges, and new uncertainties. These are identified in three related facets of management's environment: the world economy, the employee society, and the business enterprise as a political institution. That these challenges are formidable may be inferred from the fact that he does not give us here any of the pithy directives we found in the first two chapters. But perhaps it is too much to ask, even of a thinker of Drucker's stature, for more than a classification of the hazards that face us. This is, after all, a book on management strategy, not on short-term tactics.

In his concluding comments, "The Challenge to Management," Drucker reiterates his main points: "The challenges of turbulent times that all institutions face, businesses and public-service institutions alike, affect all levels of management and all groups within management. . . . It is top management above all that will have to concern itself with the turbulences in the environment, the emergence of the employe society, and the need for the enterprises in its care to take the lead in respect to political process, political concepts, and social policies." He concludes on a sobering note: "Rarely has a new social institution, a new social function, emerged as fast as management in this century. Rarely, if ever, has it become indispensable so fast. But rarely also has a new institution, a new leadership group, faced as demanding, as challenging, as exciting a test as the one that managing in turbulent times now poses to the managements of businesses and nonbusiness public service institutions alike."

WILLIS B. HOWARD, JR.

G. Gilbert, G. Lachawicz, and R. Borschow, *Accounting and Auditing for Employee Benefit Plans*, Warren, Gorham & Lamont, Boston, 1980.

The authors are partners of one of the national accounting firms; the book is intended to be a desk manual for accountants who have accounting and auditing responsibilities with employee benefit plans. The book is largely devoted to retirement plan questions. The book, originally published in 1978, is updated by a 1980 Cumulative Supplement.

The pension actuary will find the book very helpful. The reviewer singles out a number of topics that are particularly well presented:

1. Administrative, investment, and related matters relative to plan assets.
2. Fiduciary considerations.
3. Reporting and disclosure matters.
4. Accounting guidelines set forth by FASB, AICPA, and the SEC.
5. Audit checklist.

The book is very well organized. Considerable information is presented in an orderly and efficient manner. The reviewer finds the book of sufficient value to encourage the authors and their publisher to present a 1981 edition by integrating the

1978 book with its 1980 Cumulative Supplement. The book and supplement make 546 pages.

The authority of the book would have been enhanced if citations to law, regulations, or rulings had been provided. The book has no such citations.

In some instances, the reviewer would encourage the authors to consider clarification or modification in future additions. Several examples follow:

1. The terms *common trust, collective trust,* and *commingled funds* are all used in the book. Their use appears inconsistent and not rigorous. A collective fund is a bank-sponsored fund within the meaning of the comptroller of currency regulations; a collective fund is often called a commingled fund. A common trust fund is a fund, not necessarily collective, that is tax-exempt as provided by the Internal Revenue Code.
2. Instead of the term *controlled group trust,* the more commonly used term *master trust* might be used.
3. In the example of a completed Form 5500 (page 10-37), Question 12, persons receiving payments from the plan, should show the payee's employer identification number.
4. Note F—Income Tax Status (page S10-36) would be more accurate if it stated that the trust has, or the plan and trust taken interdependently have, tax exemption, rather than the plan. A plan alone has no tax status.

CARLTON HARKER