

disability benefits); (2) contributions consisted of the combined employee and employer social security taxes; (3) these contributions were compounded at current interest rates (those paid on series E bonds until 1963 and 4 percent thereafter); and (4) benefits consisted of the retirement benefits for the worker *and* his wife.

They compared the accumulated value of contributions of a worker with the amount it required to provide him and his wife retirement benefits for 14 years. If the total value of the taxes he and his employer have paid is not enough to pay the benefits for 14 years, to which he and his wife are entitled, he has had a bargain, or is a gainer. Their approach may be described as one in which the retiree draws on a fund (for example, a bank account) which he has built up with his own as well as with his employer's taxes at compound interest and which continues to earn interest on the declining balance (declining because of withdrawals for annual benefits).

Still another study, that of Henry Aaron, is available.⁵ His calculations showed that the social security system of 1962 gave relatively more benefits per dollar of social security taxes to the lower paid worker, and that there was a subsidy to all income levels in the sense that workers received greater benefits than what they had contributed. He used the following assumptions: (1) Social security taxes were paid from 1937 to 1961; (2) social security benefits began in 1962 (the ending date was unspecified in the study); (3) estimates were made for workers who had lived to age 65 (he ignored the possibility of a death before age 65 as well as the possibility of supplementary benefits); (4) the workers bore the full burden of the combined employee-employer taxes (he indicated that alternative assumptions about the incidence of OASDI taxes did not alter the results substantially—this is somewhat surprising to the present writer); (5) arbitrary wage patterns of money wage for each year had a constant real value in 1947–49 dollars of from \$500 to \$15,000; and (6) two alternate rates of interest, 3 percent and 6 percent, were used.

Under the respective assumptions noted, these several studies have shown that those who have retired, or will retire during the next two to three decades, will have received benefits which are greater than their taxpayments.

B. SOCIAL SECURITY GAINERS: ALTERNATIVE ESTIMATES

Since a variety of assumptions has been used in previous studies, it is difficult to generalize. Broadly speaking, many estimates of tax-benefit relationships have been computed for the worker whose earnings were at least equal to the maximum taxable earnings (later referred to as the maximum earner). With respect to tax contributions, these estimates assumed either no-backward shifting or full-back-

⁵ Henry Aaron, "Benefits under the American Social Security System," *Studies in the Economics of Income Maintenance*, Otto Eckstein, ed. (Washington: The Brookings Institution; 1967), pp. 63–67.