UNDERSTANDING (AND MISUNDERSTANDING) SOCIAL SECURITY: BEHAVIORAL INSIGHTS INTO PUBLIC POLICY

Richard M. Coughlin

I. INTRODUCTION

At no time since its inception has the U.S. social security system been the subject of close scrutiny and sharp disagreement more than in recent years.[1] Resurgent interest in social security coincided with, and probably resulted from, revelations in the mid–1970s about an impending crisis in the system's financing.[2] As the debate developed, several facts became clear. The first was that in every respect—social, political, and economic—social security is a program of immense national importance. In its 50 years of operation, social security has grown dramatically in size and scope. What started out in 1935 as a program designed to provide modest retirement benefits to workers in private industry subsequently evolved into a system of extensive coverage and high costs. Among all federal expenditures, social security now ranks second only to the entire defense budget: in 1983, spending for Old Age, Survivors, and Disability Insurance (OASDI) amounted to $166.8 billion, with another $39.3 billion spent for Medicare (U.S. Department of Health and Human Services, 1983). Second, it became apparent to all observers that social security had expanded in ways that stretched existing financing mechanisms to the breaking point and necessitated major reforms in the program's benefit structure, method of financing, or both. Third, increased attention to social security's financial predicament revealed widespread confusion among the public about the system's current status and future prospects. Extensive media coverage of the "social security crisis" brought many issues to public attention for the first time, raising the question of whether more information about the program would serve to strengthen or weaken its traditional base of support. A fourth and concomitant outcome of the renewed debate was the discovery of how little consensus exists among economists and other policy experts on how to go about reforming social security, even in the face of widespread agreement over the proximate causes of the system's financial problems.

This paper examines the development of social security in the United States with the intent of clarifying the origins and implications of the controversies that have enveloped the program in recent years. The discussion will focus on social security topics identified by economists as crucial to understanding the system. We shall first look at how economists, acting either as program advocates or critics, have argued the case for or against social security on theoretical grounds as well as on the basis of research into the system's effects. Second, the discussion will explore the underlying assumptions about economic rationality and individual behavior that have guided economic studies of the social security system's development, present circumstances, and future prospects.

II. PURPOSES OF SOCIAL SECURITY

The purpose of social security is ostensibly to provide income security for retired workers. Functional simplicity, however, has never characterized the social security system, and there continues to be widespread disagreement over what the program's purposes are and what they should be. In part this disagreement is a result of elements peculiar to the current program. At times social security has been portrayed as analogous to a private insurance scheme with narrowly circumscribed goals of replacing part of earnings lost through retirement. At the same time, social security's scope of coverage and level of benefits have expanded far beyond this limited goal. Insofar as purposes are concerned, social security has evoked so much controversy because it contains so many complicated and contradictory features and because it presents so many different faces to expert and layman observers alike (see Derthick, 1979a). It has served—if the debate can withstand one more analogy—as a kind of Rorschach ink blot into which observers can readily project a multitude of preconceptions and ideological values, and the closer its details are scrutinized the more the broad outlines of the image seem to dissolve into a blur.

A. *Historical Roots*

Controversy over social security's identity and purposes dates back to the 1930s and the victorious effort by members of the Committee on Economic Security (CES) and, later, the Social Security Board to impose a particular model of old-age insurance (OAI) on the new federal program. Although now widely regarded as the centerpiece of liberal social legislation, the approach settled upon by the CES and later enacted into law as Titles II and VIII of the Social Security Act of 1935 reflected a "conservative" strain of social insurance. In planning social security, the CES drew heavily on the work of institutional economist John Commons and reform leader John Andrews, who a few years earlier had laid the foundation of 1920s social insurance legislation in Wisconsin. The Wisconsin model of social insurance emphasized principles of risk selection (i.e., limitation of coverage to the risk of loss of earned income because of retirement), the linking of coverage to prior employment, financing by payroll taxes falling on both the employee and the employer, and a structure of wage-related benefits (Lubove, 1968; Cates, 1983). The conservatism of this model was to be found in its contrast to the more liberal philosophy of social insurance expounded by Abraham Epstein and Isaac Rubinow, as well as in contrast to radical schemes for income redistribution that sprang up in the 1930s in the form of the Townsend Plan and Huey Long's Share Our Wealth.

But political judgments are all relative, and measured solely against existing income-support provisions for the aged—which prior to 1935 were restricted to coverage under state public assistance programs—the federal social security program represented a move toward greater governmental intervention in the social and economic life of the nation that was anything but conservative. Subsequently, a long series of legislative actions wrought important changes in the structure of the OAI program, broadening its coverage, liberalizing benefits, and further contributing to the ambiguity surrounding its purposes.

B. *The Insurance Analogy*

One important element of the early debate over social security concerned the development of the insurance analogy. The original architects of social security rationalized their actions as much or more in terms of political expediency than economic principles. Much of their efforts went toward selling the idea of a federally sponsored program to the Congress and the electorate. The original social security legislation contained no reference to insurance principles of any kind, because it was feared that such terminology might lead to the program being declared unconstitutional. Immediately following the favorable 1937 decision by the U.S. Supreme Court, however, the program began to be infused with a terminology reminiscent of private insurance. Government pamphlets, other official documents, and pronouncements by social security administrators started to refer to payroll taxes as "contributions." Each participating worker received an identification number to record earnings in covered employment, giving the impression that social security numbers were tied to individual retirement accounts. Moreover, the establishment of the Old Age Reserve Account, later joined by trust funds for disability insurance and Medicare, into which contributions were paid further reinforced the perception that social security was like a fully funded private insurance scheme. And perhaps most important of all, proponents of social security offered the repeated and insistent reminder to the public that only those workers who had paid into the system would be entitled to receive benefits later on.

Ironically, the private insurance analogy came into widespread use just as major reforms were occurring that would push the program ever farther away from narrow insurance principles. In the original legislation the relationship between taxes paid and benefits received under the OAI program was at least roughly similar to private annuity insurance, favoring the preservation of *individual equity* over welfare objectives in the system. For example, only one beneficiary, the retired worker, was to be eligible for benefits, which ranged from $10 to a maximum of only $85 per month (Weaver, 1982). Benefit tables further reflected the equity principle of equal benefits for equal contributions irrespective of individual need or family circumstance. Coverage under OAI was limited, moreover, to only about 60 percent of the labor force.

But even at the beginning, misleading terminology and crude similarity could not conceal the elements of OAI that diverged sharply from private insurance. From the start, benefits were progressively weighted in favor of workers with a history of low earnings; although the absolute level of benefits increased at higher earnings levels, the ratio of benefits to covered earnings decreased. Furthermore, the entire benefit structure was artificially elevated to provide higher benefits to the first retirement cohort, resulting in an even greater disjunction between taxes paid in and benefits received than would have been produced by the progressive benefit structure alone. Together these elements constitute what has come to be known as the *social adequacy* component of social security.

In subsequent years, two opposing forces further altered the balance between individual equity and social adequacy in social security. On the one hand, amendments to the Social Security Act beginning in 1939 and in years following served to weaken the relationship between taxes paid to social security and benefits received by altering the way in which the earnings base was calculated, by inclusion of survivors and dependents in the program, by the introduction of disability and Medicare coverage and, most of all, by periodic upward adjustments in benefit levels at a rate exceeding increases in the payroll tax. Considered in isolation, these actions served to augment the transfer (or "welfare") component of social security. On the other hand, as the system matured and each new cohort of retiring workers paid taxes over a longer period of time than the cohort before it, the tendency was toward a steady reduction of the relative size of the welfare component. Evidence suggests that the net trend was toward an overall reduction in the welfare component of social security from almost 98 percent of average benefits in 1940 to about 70 percent in 1970 (Parsons and Munro, 1977). However, these data do not take into account the very large benefit increases that were enacted during the 1970s, nor do they reflect large discrepancies of the equity/adequacy balance within retirement cohorts resulting from the progressive benefit formula, the impact of survivors' and dependents' benefits, variations in the timing of retirement, or differences in longevity—all of which further distort the simple equity principle implied by the insurance analogy.

In sum, the enduring presence of a large social adequacy component in social security has rendered the analogy to private insurance untenable. Today its usefulness as a defense of social security is dubious. If all that can be said about social security is that it is like a private annuity, it is hard to see any valid reason for providing benefits higher than those justified by actual individual contributions. Moreover, adhering strictly to the private insurance analogy, one might just as well argue that individuals should be free to choose how to allocate their own resources, including foregoing current individual consumption in order to save for retirement—or not, as they desire (see, e.g., Friedman, 1962). Pursuing this logic, conservative and libertarian critics of social security have seized on the insurance analogy as an inviting point of attack on the system as a whole. They correctly point out that social security is not voluntary, that it imposes substantial tax burdens on current workers to pay benefits to those currently retired, and that future benefits are not guaranteed on the basis of individual contributions but by the willingness of future working generations to bear the tax burden to support future retirees. In the view of these critics, comparing social security to private insurance is little more than "fraud" (Shore, 1975; see Friedman, 1977).

C. *Rationales for Social Insurance*

While few, if any, contemporary proponents of social security have attempted to defend the system on the basis of the private insurance analogy, the notion that social security provides essential risk protection *qua* social insurance is far from dead. The focus of debate over the justification for social security has shifted from the discredited private insurance analogy to the examination of more valid social insurance rationales, the most important of which are reviewed below.

Individual Myopia. In the absence of a mandatory savings system, there is the danger that individuals will fail to insure adequately for retirement (Manser, 1981; Pechman, Aaron, and Taussig, 1968). This argument can take several forms. One explanation attributes savings failure to *individual myopia*, involving the tendency of individuals to underestimate their retirement savings needs (Schulz, 1980). A slight variant of this explanation identifies individual irresponsibility or simple bad judgment as the cause of insufficient savings (Diamond, 1977; Viscusi and Zeckhauser, 1977; Stein, 1980; cf. Feldstein, 1977). Still another version of this explanation elaborates the concept of myopia to include the role of uncertainty in individual decision making (Diamond, 1977; Viscusi and Zeckhauser, 1977). Schulz (1980, p. 74), for example, enumerates the following conditions that interfere with the individual's ability to make adequate plans for retirement:

1. He doesn't know with certainty when he will die.
2. He doesn't know exactly what his future income flow will be.
3. He doesn't know what his basic retirement needs will be or what lifestyle he will ultimately prefer for that period.
4. He doesn't know when he will retire.
5. He cannot easily predict the future rate of inflation.
6. He cannot easily predict the rate of economic growth.

It follows that to compensate for uncertainties and to ensure that individuals will be protected from destitution in old age, paternalistic strategies are justified to enforce savings via social insurance or some functionally similar strategy.

Opposing this rationale are arguments questioning both the prevalence of individual savings myopia and the presumed obligation of society to protect those who fail to protect themselves. Browning (1973) notes the lack of good information on the extent to which people would fail to accumulate sufficient savings in the absence of paternalistic government policies; if the actual number were small—on the order of a few percent—the myopia rationale would, in his words, "hardly be considered convincing" (p. 236).[3] Friedman (1962) challenges not only the need for policies to enforce savings but also the morality of governmental paternalism. Consider the following excerpt from *Capitalism and Freedom*:

> Those of us who believe in freedom must believe also in the freedom of individuals to make their own mistakes. If a man knowingly prefers to live for today, to use his resources for current enjoyment, deliberately choosing a penurious old age, by what right do we prevent him from doing so? We may argue with him, seek to persuade him that he is wrong, but are we entitled to use coercion to prevent him from doing what he chooses? Is there not always the possibility that he is right and that we are wrong? Humility is the distinguishing virtue of the believer in freedom, arrogance of the paternalist (p. 188).

Market Failure. Government intervention may also be justified on grounds of market failure. Social security, of course, came into being during the Great Depression largely as a result of a prolonged and disastrous failure in the private market. Although the dire conditions that marked that era are gone, there is evidence that the private market still does not provide adequate protection against the loss of income in old age. Diamond (1977) offers several examples of market failure in the area of retirement income security: first, investment opportunities to provide a reasonably safe real return on investment may not exist, and even if they do individual investors may not have sufficient assets or knowledge to take advantage of them; second, there may be an absence of investment opportunities in annuities indexed to changes in the level of prices; and third, it may not be possible for the individual to insure against the risks associated with the length of working life, such as ill health, declining energy, and obsolescent skills.

Feldstein (1977) and Rosen (1977) also cite examples of market failure as a rationale for social security, identifying the "adverse selection" problem as a limitating factor in the ability of private insurance to offer adequate coverage to high-risk individuals who need protection the most.

Schulz (1980) points to the poor performance record of pension plans in private industry, which historically have offered uncertain and inadequate retirement protection to workers and which still cover less than half of all workers. Based on analysis of a recent Social Security Administration Retirement History Survey, Thompson (1978) underscores this point, reporting that 28 percent of men and fully 45 percent of women covered by private pension plans never received any benefits from the plans after retirement.[4]

The idea that adequate retirement security cannot be insured through private market mechanisms has not gone entirely unchallenged. A number of proposals have been put forward by libertarians and fiscal conservatives to reform social security by replacing most or all of its coverage with market-based alternatives. A notable example is Buchanan (1968), who has proposed reconstituting the old-age pension part of social security by repealing the payroll tax and substituting compulsory purchases of social insurance bonds. The proceeds of bond sales would be used to finance current benefits, and the rate of return to bond holders would be adjusted to the rate of growth of the economy or the interest rate on long-term treasury bonds, whichever was higher. Although the purchase of a minimum level of protection would be compulsory under this proposal, individuals would be allowed to substitute private insurance coverage for an equal value of social insurance bonds.[5]

Income Redistribution. A third rationale for social insurance rests upon its capacity to redistribute income within and between retirement cohorts. The contention is that since the elderly are at high risk of being poor, it is appropriate to transfer income from the working population to the elderly by means of social security benefits. Viscusi and Zeckhauser (1977) flatly assert that "transferring resources to the elderly is social security's dominant accomplishment" (p. 50). Manser (1981) notes that intergenerational redistribution in social security can be justified on the grounds that later generations are expected to be better off than previous ones (cf. Morgan, 1978). Ozawa (1976), responding to the objection there are more efficient means available for giving support to the elderly poor, stresses the comparative advantage in the "magnitude of distributive impact" of social security over public assistance programs and argues that redistribution is an essential purpose of the system:

> [A] 100 percent share of a peanut is still a peanut, but a 50 percent share of an elephant is half an elephant. The amount of aggregate benefits that goes to the lowest income class is a function not only of the degree of economic efficiency but also of the total amount of outlay (p. 213).

Of the rationales for social insurance, income redistribution has generated the most controversy, with strong criticisms of its role within the current social security system coming from both ends of the ideological spectrum. Right-wing critics have objected to any redistributional purpose in social security on grounds of equity, economic efficiency, and morality (Ferrara, 1980; Weaver, 1982). Leftist critics have approached the issue from the opposite direction, questioning the sincerity of social security's redistributional goal, given the regressive nature of the payroll tax, the meager benefits paid to low-wage earners, and what these leftist critics regard as the program's covert social control functions.[6] Koeppel (1976) characterizes social security as "inadequate and unfair, with workers and the poor carrying a disproportionate share of the burden of the elderly." In a similar vein, Cates (1983) charges social security with "insuring inequality" through its embodiment of conservative social insurance principles and its role in blocking effective reform of public assistance programs for the elderly. Finally, O'Connor (1973) succinctly states the neo-Marxist analysis of the program as follows:

> The basic purpose of social security is widely misunderstood.... Although social security contributes to social and political stability by conservatizing unemployed [*sic*] and retired workers, the primary purpose of the system is to create a sense of economic security within the ranks of employed workers (especially workers in the monopoly sector).... *Seen in this way, social insurance is not primarily insurance for workers, but a kind of insurance for capitalists and corporations* (p. 138. Emphasis in original).

D. *Related Intergenerational Issues*

While not counted among the conventional rationales for social insurance, a number of issues concerning the relationship between the generations have been raised as possible justifications for the present social security system. The first is the "compact between the generations" argument—the idea that each working generation supports the retired population with the expectation of receiving similar support upon retirement. Break (1977, 1981), for example, argues that since the insurance analogy no longer serves as an accurate description of social security, the program can only be rationalized as a compact between the generations, based on the simple economic logic that parents have children whom they expect to support them when they retire. Pogue and Sgontz (1977) elaborate this argument and cast it in the terms of a rational response to market uncertainties: money spent on childrens' education is conceived of as investment in human capital, which yields the parents a higher rate of return than a comparable investment in physical capital; a strong parental commitment to education thus encourages a strong filial commitment to support social security.

Other economists have objected to the concept of the intergenerational compact or do not appeal to it explicitly as a rationale for social security, although their analyses lead to essentially the same result. In the place of an intergenerational compact, they offer the idea of *entitlement* to benefits. Morgan (1977, 1978) forcefully argues the case in favor of the right of the retired generation to benefits on the grounds that the consumption foregone by people during their working lives to fund the social security system facilitates the increase in living standards enjoyed by all of society. In its purest form, this analysis approximates the insurance analogy (and at times Morgan seems to be arguing for a pure insurance interpretation of social security), but one significant difference lies in the emphasis it places on the collective contributions and benefits of the cohort rather than of the individual. Morgan distinguishes this presumed earned right to a benefit from intergenerational transfers on the basis that all generational cohorts (except the first few) are entitled to receive their contributions *plus interest* when they retire. The only redistribution that occurs is within generations in the form of disability benefits, survivors' benefits, and the implicit subsidy from those who die early to those who live a long time (Morgan, 1978). Musgrave (1981) makes a similar point about the right of retired workers to receive benefits, arguing that the essential nature of social security is "one of contribution and entitlement, not of redistribution" (pp. 119–120).

Finally, there is the issue of pay-as-you-go financing of social insurance, which has been a key point in the debate over intergenerational transfers in social security. Building on the work of Samuelson (1958), Aaron (1966) describes the social insurance "paradox" in which accumulating reserves results in a decrease in real net lifetime receipts compared with a pay-as-you-go financing.[7] However, Aaron does not appear to see this potential advantage as a rationale per se for the current social security system, noting that even in the absence of any net increase in welfare, an unfunded system may be justified on alternate grounds of market imperfections or income redistribution goals.

Among the many critics of the intergenerational compact and pay-as-you-go financing, Friedman's (1972) comparison of social security to a "chain letter" figures prominently. Friedman argues that by funding benefits out of current taxes the system pushes spending ahead of explicit taxes, producing deficits that must be financed by future generations. Rosen (1977) notes that Friedman's analogy to a chain letter may be appropriate, but it is incomplete. Chain letters must end ultimately, but if society survives there will always be future generations to tax. Rosen further argues that "the implicit rate of return on prior tax payments is sustained by a growing taxable base, whatever its source" (p. 93). In another analysis of intergenerational transfers, Browning (1973) similarly points out that while social insurance is, in a meaningful sense, debt financed, the problem of shifting costs to the "terminal generation" is hypothetical, occurring in the far-distant future when, perhaps, scarcity may no longer even be a problem and when taxes will harm no one.

III. DEBATE OVER ECONOMIC EFFECTS

Another important ingredient of the recent debate over social security concerns the effects of the program on the economy. The three areas that have been the focus of greatest attention are: (1) effects on savings and capital accumulation; (2) effects on labor supply; and (3) the net impact on income redistribution. Below we shall briefly review these questions before turning to the discussion of the theoretical foundations underlying economic behavior in social security.

A. *Effects on Savings*

For two decades the debate among economists over the impact of social security on savings behavior has presented a curious case of "now you see it, now you don't." What has been seen, or not seen, is any consistent and significant negative impact that many economists presume social security must have on rates of savings. The empirical evidence has piled up, but no definitive answers have been forthcoming; a proliferation of studies using different methodologies and analytical frameworks have reached divergent conclusions, ranging from a small positive impact of social security on savings to large negative effects. While we can do little more than scratch the surface here, it is nevertheless useful to identify where and how these disputes have arisen.

Munnell (1974a) notes that traditionally there have been two popular but irreconcilable arguments concerning the effect of social security on household savings. The first, based on the life-cycle model used in the conventional neoclassical analysis of savings, assumes that families arrange their economic affairs to maximize total utility over their entire lifetimes, that savings are set aside solely to provide for consumption after retirement, and, furthermore, that both working and retirement phases are of a fixed and predictable duration (see Break, 1981). Social security, since it accomplishes the savings function by way of the "contribution and entitlement" mechanism, should thus act to reduce discretionary savings via a *wealth replacement* effect. The second argument predicts exactly the opposite outcome, an increase in savings, due to the fact that social security stimulates awareness of the need to save for retirement (a *recognition* effect) as well as encouraging additional savings as individuals approach retirement (Katona, 1965; Cagan, 1965).

This apparent theoretical stalemate has been the focal point of intense debate and empirical study over the past decade. Having identified the antinomy in existing theories, Munnell (1974a) concludes that social security has exerted dual effects on savings that have tended to offset one another and have accounted for the relative stability of the savings rate over time; in another study, Munnell (1974b) concludes that the net negative impact of social security on savings is small, in the range of 5 percent. Subsequently, Martin Feldstein emerged as the intellectual standard bearer for this side of the debate, producing a series of studies in which he argues for a large negative effect on savings (Feldstein, 1974, 1976a, 1976b, 1977, 1979a, 1979b; Feldstein and Pellechio, 1979). Feldstein reaches this conclusion based on an extended life-cycle model in which social security shows a substantial "asset substitution" effect, displacing private savings and resulting in a reduction of stock of private wealth on the order of 40 percent (Feldstein, 1977). During the 1970s other studies appeared that were consistent with Feldstein's general position that social security significantly reduced savings and capital formation (Boskin and Robinson, 1980; Kotlikoff, 1979a, 1979b).

Opposing arguments have come from two sources, the first relying on a different set of variables to explain savings behavior and the second using Feldstein's very own data to obtain a dramatically different conclusion. Barro (1974, 1978) has proposed a modification of the life-cycle model of savings behavior to include voluntary transfers between the generations. He hypothesizes that parents wishing to make bequests to their children will increase savings under conditions of pay-as-you-go pension financing in order to counteract the higher tax burdens imposed on the younger generation; conversely, he makes the argument that under social security, direct support of elderly parents by children is replaced by indirect support through the public pension program, again with no net decrease in savings. Darby (1979) provides some confirmation of the notion that bequests have a greater influence on savings behavior than does asset accumulation for retirement.

The most interesting challenge to the large negative savings effect thesis comes from the work of two research economists from the Social Security Administration, Leimer and Lesnoy (1980). Using Feldstein's own data, they obtained results that indicated no significant negative impact on savings. Further checking uncovered an error in Feldstein's computer program that accounted for the discrepancy, thus apparently negating Feldstein's original conclusion. In response, Feldstein (1980) quickly published an updated and revised version of the first study that, even without the help of a programming error, found a strong negative impact on personal savings.

To observers sitting on the sidelines, little can be gained from following the zigzag course of the savings debate, except perhaps a sense of bewilderment at the sheer magnitude of the range of estimated effects. The consensus among economists who are not confirmed adherents of either side of the debate is that the question remains open, and that empirical studies published to date need to be interpreted with caution. Break (1981), for example, characterizes the conclusions emerging from "work being done at the frontiers of economic research" as "fragile and tentative" (p. 74).[8]

B. *Effects on Labor-Force Participation*

Less controversial and better documented is social security's effect in reducing levels of labor-force participation among the elderly. The arguments on this point are quite simple: by providing benefits upon retirement, social security induces the elderly to withdraw from the labor force; and by placing a heavy implicit tax on earned income via the "retirement test," it discourages the elderly from working. Neither of these assertions is seriously open to question, nor can there be any doubt that rates of labor-force participation among the elderly have fallen sharply throughout this century and continue to decrease (see Achenbaum, 1978). What disagreement there is concerns the magnitude of the impact on labor-force participation and its significance for productivity in an advanced industrial economy.

Early studies of retirement behavior, based on a survey interview methodology and conducted by the Social Security Administration between 1941 and 1951 found that only a very small fraction (on the order of 3 to 6 percent) of retirees retired voluntarily in order to enjoy leisure (Campbell and Campbell, 1976). Subsequent surveys done in the 1960s found that the rate of voluntary retirement seemed to be on the rise, accounting for about 10 to nearly 20 percent of all male retirements both at age 65 and ages 62 to 65 (Palmore, 1964; Reno, 1971). In the overwhelming majority of cases, these early studies identified poor health, reaching compulsory retirement age, or declining work opportunities as the cause of retirement. Obviously, these factors are only tangentially related to the availability of retirement benefits, and the implication was that the potential impact of social security as an inducement to retirement was negligible.

More recent studies using methodologies other than surveys have challenged this conclusion. Based on analysis of labor-force participation statistical series, Campbell and Campbell (1976) suggest that sharp declines in the participation rate are linked to several aspects of social security: the eligibility for full benefits at age 65, the availability of early retirement benefits introduced for women in 1956 and for men in 1961, and the shift to part-time employment of workers subject to the retirement test. Analysis of the Survey Research Center (Michigan) income dynamics panel by Boskin (1977) provides supporting evidence. He concludes that "recent increases in social security benefits and coverage, combined with the earnings test, are a significant contributor to the rapid decline of the labor-force participation of the elderly" (p. 19). In various studies using a different methodology to analyze the 1973 Current Population Survey-Internal Revenue Service-Social Security Administration exact-match file, Pellechio (1978a, 1978b, 1979) reaches a similar conclusion for males aged 60 to 70 who were eligible for social security retirement benefits but were not covered by other public pension plans.

The implications of a reduction in the labor supply are not clear. Some contemporary economists have identified this negative impact as a problem and see the falling labor-force participation of the elderly as a serious loss in aggregate productivity. But removing older workers from the labor force was, in fact, one of the ancillary goals of the program in the 1930s, when high unemployment meant that there was a large surplus of labor and little demand for their services. Although unemployment rates in recent years have never approached levels of the Depression era, they have not been low in absolute terms for over a decade. This has led other economists to conclude that the negative effect of social security on the labor supply is not a serious problem at all, and in some respects—for example, supporting employers' preferences for younger workers—it may even be beneficial.

C. Effects on Income Redistribution

Although social security benefits are progressively weighted, the payroll tax is known to be one of the most regressive of all taxes (Brittain, 1972). And because the benefit structure and the payroll-tax burden have changed frequently over the program's history, the net redistributive impact of social security has not been easy to ascertain. Despite recurrent challenges from both the ideological left and right, conventional wisdom in economics and public policy has portrayed social security as a fundamentally egalitarian and progressive program. The evidence supporting this conclusion comes from the program's redistributive impact via intergenerational transfers. Since retirees are likely on average to have lower incomes than workers, the cross-sectional net effect of payroll taxes and social security benefits has been regarded as progressive. Plotnick and Skidmore (1975), for example, found that in the early 1970s social security lifted more people out of poverty than any other program.

The argument based on the progressiveness of intergenerational transfers begs the more important question of whether social security acts *over time* to redistribute income from the more affluent to the less affluent segments of the population. Liberal supporters of social security have typically acted on the assumption that it does, that the program's progressive elements outweigh and eventually overtake its regressive ones, and that social security effects a net downward redistribution of income to low-wage earners.

Numerous impediments stand in the way of assessing social security's overall redistributive impact, and a complete model must take into account not only the relative balance between the regressiveness of the payroll tax and the progressiveness of the benefit structure but also differences in the length of working lives, life expectancy and age-specific mortality, interaction between payroll taxes and income taxes, dual-income households, and a host of other factors influencing the "fairness" of the system across different segments of the population (Campbell, 1977). This is no easy task, and although no study to date has attempted to weigh the simultaneous impact of all these variables on income redistribution in social security, there are a few efforts worth noting. Ozawa (1976) cites the relative insensitivity of social security benefits to family size and large differences in life expectancy across racial groups as significant constraints on progressivity. She concludes that "it may well be that income redistribution is taking place in the opposite direction from what is generally believed" (p. 219). Aaron (1977) reports the results of a simulation study examining the impact of age of entry into the labor force, earning profiles, and mortality rates on the OAI segment of social security, in which he found that differential mortality rates *fully offset* the progressivity of the social security benefit formula. Aaron concludes that if social security's goal is downward redistribution of income, reforms are needed to bring its actual effects in line with this goal, either by increasing the progressivity of the benefit formula or by replacing the flat-rate payroll tax by a graduated tax.

IV. PUBLIC OPINION AND ECONOMIC RATIONALITY

Because of the central role it accords behavioral assumptions of rational choice and utility maximization, mainstream economics has had more than a little difficulty coming to terms with the widespread and seemingly uncritical support social security has received from the American public. As economic policy, social security has proved an easy target for attack on the grounds of its relative inefficiency as a tool of income maintenance. Narrowing in on social security's ambiguous objectives and complicated—even obscure—relationship between taxes paid and benefits received, critics have been able to build cogent and consistent indictments of the program's structure of costs and benefits, incentives and disincentives. In contrast, the defense of social security in conventional economic terms has tended to be vague on important questions of theory, such as accounting for individual motivation to work and save, and it has been hampered by use of the analogy to private insurance. Given their natural bias toward the economics of private goods and market transactions, mainstream economists have generally found it easier to suggest why social security should not exist, at least not in the form that it does, than to say why it should.

And yet the irony is that critics of social security have had little success in explaining the most important empirical result of all: the simple fact that the program has survived, even flourished politically, for so long with its ambiguities and apparent contradictions intact. During the past decade, social security has weathered several well-publicized financing crises—including more than a few premature announcements of its imminent bankruptcy—without suffering mass disaffection. The financial problems of the trust funds aside, the prospects for social security enduring more or less in its present form appear quite good (Tomasson, 1983).[9] How are we to account for this apparent paradox? Are conventional economic assumptions about behavior wrong, or is the broad appeal of social security merely symptomatic of mass economic irrationality? The answer to these questions can be found, I think, in how we conceive of rational economic behavior in the context of social policy. The first step is to understand how the public perceives social security.

A. *Public Opinion, Preferences, and Information*

More than any other social program, the old-age pension part of social security has managed to overcome the strong resistance Americans have often shown toward government intervention in social and economic affairs. Surveys from the 1930s and 1940s reveal that a remarkably high degree of public acceptance of social security was present from the very start. From 1935 to 1945, levels of approval ranged from 68 percent to 97 percent of national sample surveys (Schiltz, 1970), with the variations mostly accounted for by differing formats and wording of items contained in various surveys. Nor was initial public acceptance of the program passive: fully 81 percent of the sample in a 1941 survey expressed the willingness to pay an *additional* 3 percent tax on income to finance pension benefits (Schiltz, 1970).

Surveys done in the late 1940s and the 1950s confirmed the findings of earlier studies, while also revealing a broad base of support for extending coverage to ever-wider segments of the population. A 1961 Survey Research Center (Michigan) poll found that the public ranked "help for older people" as the number one priority for government spending, with 70 percent of the sample favoring increased spending in this area, compared with 54 percent supporting increased spending for hospital and medical benefits, and only 29 percent in favor of more money for unemployment benefits (Schiltz, 1970).[10]

During the 1970s, despite a great deal of unfavorable publicity arising from the depletion of the OASI Trust Fund, there were no indications of any wavering in traditional patterns of public support. In 1977, well after the initial disclosure of the trust fund's problems and in the middle of a heated congressional debate about social security reform, a Harris survey found virtually unanimous opposition among the public to cutting social security: 87 percent said that a one-third reduction in spending for the program would be a "very serious loss," while another 9 percent saw this action as a "serious loss" (Coughlin, 1980).

While the meaning of opinion-survey evidence is always open to question—and no more so than when selected findings are applied to complex policy issues—the cumulative weight of evidence from these and other opinion surveys points to a strong and enduring public preference for social security. To be sure, I am using the term *preference* here in a way that will arouse skepticism on the part of economists who view the free market as the only circumstance in which individual preferences can be ascertained. Of course, assessing preferences in this latter sense is impossible at present, since individual choices in social security are limited by mandatory participation in the program. Nor is it possible within the realm of public policy to generate direct information about the hierarchy of individual preferences, and indirect evidence is limited to comparing public-opinion survey data across different kinds of programs.

Still, working within the conventional framework of utility maximization, it would be reasonable to expect that individual attitudes toward the existing social security program would be shaped by patterns of differential costs and benefits to individuals. Those who stand to enjoy net economic benefits from the system would be expected to support the system, while those who believe that private-market alternatives will produce better returns on investment should oppose it. Although the logic of this simple explanatory model is reasonable, its usefulness in accounting for opinion-survey results is questionable. For one thing, levels of popular support have remained so high for so long that there has been little variance to explain. A second and potentially more vexing problem arises from the sheer complexity of determining actual costs and benefits in social security: over time these have shifted continuously as the program's coverage has expanded, benefit formulae have changed, and payroll taxes have increased. Indeed, given the widely ranging estimates of net tax and benefit effects offered by different economists, it would be difficult to predict even the hypothetical direction of the relationship between net social security costs and benefits on the one hand and attitudes on the other. Empirical results do not provide much help in solving this problem; while various surveys have found a slight negative relationship between income and education and support for social security, these patterns are nowhere near as pronounced as they are in attitudes toward other social programs, and, overall, the patterns reveal more consensus than cleavage (see Schiltz, 1980). In more ways than one, it seems that social security occupies a special place in public opinion.

One explanation—which is usually put forward as an objection—for the extraordinary breadth and longevity of social security's mass appeal identifies consumer ignorance as a source of economically "irrational" behavior. The most vocal critics of social security have long dismissed evidence of popular support as an artifact of deceptive advertising on the part of the Social Security Administration (Friedman, 1972). They have also argued that once the veils of confusion enveloping the program are lifted and its true nature stands revealed (i.e., principally as a mechanism to transfer income from one generation to another) taxpayers will then rise up and reject the current system (Ferrara, 1980; Weaver, 1982). A milder version of this argument holds that true attitudes toward social security are not yet known, because historical patterns of support were distorted by unrealistically low costs during the program's start-up phase. Up until the mid–1970s, apparent costs were kept low compared with benefits being paid; as the costs of financing social security have become painfully more apparent, "easy votes" in its favor have disappeared (Derthick, 1979b).[11]

This gap between the apparent benefits of government spending and perceived costs has been called the "fiscal illusion" (Lewis, 1982). On the surface, the fiscal illusion seems to offer a plausible explanation for the uncharacteristically generous attitude the public has shown toward social security, and it allows assumptions of utility maximization to be conveniently reconciled with the undifferentiated pattern of support observed in public-opinion surveys. The only problem with this argument is that it seems to be wrong—at least, it is not supported by recent empirical evidence. Surveys done over the past few years have found that the public is much better informed about social security than it was in the past, and that they continue to be in favor of more spending *despite a growing feeling that the payroll tax is too high* (Hart, 1979).[12] In social security, the fiscal illusion seems to have been turned upside down; awareness of costs, even to the point of arousing feelings that taxes are too high, has not diminished fundamental support for the program. It is important to note that there is no inherent contradiction or obvious irrationality in these attitudes; on the contrary, if the message of public opinion is to favor social security as a benefit program while objecting to the way in which it is financed, there are ample precedents to be found in current social security reforms proposed by many economists.

B. Extended Conceptions of Rationality

Instead of trying to force the question of rational choice in its conventional form, it is possible to attack the problem from a different angle, modifying the model to allow a wider variety of factors to come into play. In this way we can determine if better theoretical predictions can be obtained by altering a few behavioral assumptions, rather than rejecting the model or invoking the residual category of irrationality to explain empirical observations.[13] Specifically, I would like to suggest four ways to extend or modify the rational-choice model as it applies to social security: (1) extended self-interest, (2) enlightened self-interest, (3) compassion, and (4) commitment.

Extended Self-interest. A minor but nontrivial extension of rational choice treats the welfare of families across generations, both actual and anticipated, as an influence on individual behavior in the present. Concerning social security, this extension of self-interest can be thought of in two ways. First, by providing a measure of income protection for the elderly, social security mitigates the financial burden falling directly on children (and perhaps other relatives) of retirees. Second, social security potentially serves to reduce feelings of guilt and resentment that might arise between elderly parents and their children in the absence of old-age pension benefits.[14] There is some empirical evidence to suggest that these factors play a part in shaping attitudes toward social security. An exploratory study by Goodwin and Tu (1975) found the perception that social security frees many younger people from having to support their aged parents to be strongly correlated with support for governmental sponsored old-age pensions.[15]

While requiring no fundamental revision of the assumptions of utility maximization, the extended self-interest model drives a thin wedge between the calculation of individual interests and support for social security. It forces us to confront the broader question of how financial expectations within families interact with the differential costs and benefits of government programs. At a minimum, this modification significantly complicates the question of how individuals define their economic interests in programs where direct costs must be weighed against benefits that may redound to individuals indirectly through the "extended" family.

Enlightened Self-interest. Although difficult to pinpoint, the importance of attitudes and behavior that are not immediately driven by narrow self-interest should not be underestimated. Clearly, for society to function at even a minimal level, some accommodation must be reached between raw egoism and concern for the wider public good. The concept of enlightened self-interest is graphically illustrated in the obverse by Sen's (1977) caricature of a chance encounter between two Rational Economic Men, each bent on maximizing his individual utilities:

> "Where is the railway station?" he asks me. "There," I say, pointing to the post office, "and would you please post this letter for me on the way?" "Yes," he says, determined to open the envelope and check whether it contains something valuable (p. 332).

Of course, most people in most circumstances do not behave in this way, and that is precisely the point of Sen's little parable. Under some conditions cooperation among individuals is preferable to each person rigidly pursuing his or her own selfish interests.[16]

It is worth considering that the popular support for social security can be at least partly explained by a similar dynamic: individuals who are not immediate beneficiaries of the program may believe that it serves a worthwhile purpose and that in its absence the common good would suffer—the "common good" here referring to benefits that are so widely dispersed across the population that they flow to any one individual only in the most indirect way. For example, Janowitz (1976) suggests that social security and other programs of the welfare state serve broadly integrative functions that reduce conflict and alienation throughout society.[17] On a more specific level, research by Armour and Coughlin (1982) into industrial conflict found that increases in the level of government spending for social welfare among a sample of industrialized societies were associated with decreases in labor unrest.

Compassion. Compassion (or sympathy) is usually excluded from economic models of behavior.[18] However, a substantial body of evidence, both empirical and impressionistic in nature, suggests that perceptions of need and concern about the plight of the disadvantaged are touchstones of public opinion on social security and other social welfare programs (Coughlin, 1980). Efforts to establish and, once established, expand the coverage of OAI and health care programs under social security have consistently highlighted the problem of poverty among the elderly. Even where extreme material deprivation is not specifically at issue, the elderly, as a group, seem to be regarded as intrinsically deserving of special consideration (for example, extra personal exemptions from income tax). Of all the explanations for social security's extraordinary popular appeal, the fact that the program is perceived as benefiting a deserving clientele seems to be the most persuasive (Coughlin, 1982; cf. Derthick, 1979b).

Commitment. Like compassion, commitment is a subjective condition that can have a profound influence on attitudes and behavior (Sen, 1977).[19] It is, after all, commitment that makes for heroes and religious martyrs, and that, in a more mundane fashion, provides the glue that holds human societies together.

It is commitment to values and belief systems that is of most interest to us here. Attitudes and opinions about social security do not exist in isolation from core values and beliefs around which mass ideologies are structured. Most Americans, like most mainstream economists, are deeply committed to the abstract principles of preserving individual initiative and minimum government, and unquestionably these values shape prevailing attitudes toward social security. Yet these and other traditional American values that emphasize hard work and individual responsibility must coexist with competing values that stress the right of individuals to a minimum standard of income, housing, nutrition, and health care. These values, which Marshall (1964) has termed the "social rights of citizenship," form a countervailing influence, a political context in which social welfare provisions above the minimum functional level required by modern economies can be justified. One major reason why social security has achieved such an impressive level of popular support is because it meshes with the public's commitment to the idea of "social rights" while at the same time it does not appear to contradict traditional values of work, savings, and differential reward.[20]

NOTES

1. Throughout this discussion the term *social security* refers to the old-age and survivors insurance program (OASI) under the Social Security Act of 1935 and subsequent amendments. This usage does not necessarily exclude disability insurance and Medicare, to the extent that these programs also fall under the Social Security Act and are funded by payroll taxes.

2. Initial disclosure of financing shortfalls involved only the OASI Trust Fund. More recently, financing problems in the Health Insurance (Medicare) Trust Fund have appeared and have also received widespread publicity.

3. Elsewhere Browning notes that only 15 percent of retirees cited disability as the reason for not working (see Ferrara, 1980, p. 284).

4. In the face of mounting problems with private pension schemes, in 1974 Congress passed the Employee Retirement Income Security Act (ERISA), which provides some protection against the arbitrary loss of benefits.

5. Browning (1973) presents a modification of this proposal that would allow social insurance bonds to be freely transferable. Individuals would still be forced to make an initial purchase of some minimum value but then would be free to sell their bonds or buy more, as they saw fit. Browning's rationale for this approach is to establish an efficient distribution that also generates information on individual preferences.

6. See Armour and Coughlin (1985) for a discussion of "broad" and "narrow" social control functions of social security.

7. This result occurs when the sum of the rates of growth of per capita wages and of population exceeds the rate of interest, and when the rate of interest equals the marginal rate of time preference and the marginal rate of transformation of present into future goods.

8. Cf. Stein (1980). Break adds the wry note that "one reaction to these developments will undoubtedly be increased skepticism about the use of econometric studies as a guide for government policy making" (p. 74).

9. It should be noted that the U.S. social security program is hardly an anomaly in this respect. Extensive government provisions for old-age and disability benefits are part of the welfare state in all industrialized societies. See Coughlin (1980) for a discussion of public-opinion survey research in eight industrial societies.

10. Cantril (1981) cites more recent survey data indicating that these sentiments have

not changed. Among federal government spending programs, help for the elderly was ranked second in importance out of 24 programs presented to respondents.

11. Derthick (1979b) also observes that "the financial deficit is not the only deficit in social security. There has also been a massive deficit in public understanding" (p. 105).

12. See Coughlin (1982) for a discussion of these data.

13. In the social sciences, the attempt to impose a predetermined, or *imputed*, model of rationality on attitudes and behavior invariably leaves a residual category consisting of outcomes the model cannot satisfactorily explain. Since all such models are reductive to one extent or another, there may be no general theoretical solution to the problem in economics or any other social science discipline. Political scientists and sociologists have pressed their own behavioral models into service and, no less than economists, have had to wrestle with glaring inconsistencies they encounter (see, e.g., Free and Cantril, 1968; Litwak, Hooyman, and Warren, 1973). In defense of such models it is usually argued that they serve a heuristic purpose and are acceptable if they can demonstrate sufficient predictive power. This has been precisely the defense of the rational-choice model in economics—that it predicts behavior without necessarily being an accurate description of how people actually behave (see Friedman, 1953). This rationale is fine as long as the model's predictions are reasonably good; when they are not, then the model needs to be abandoned or modified. Instead of imputing one set of rational motives to individuals, it is possible to proceed inductively, making few assumptions about the way in which people make sense of the world around them, outside of the assumption that they try to do so. This approach seeks to apprehend rationality as it actually occurs in the social world as seen through the eyes of the actors themselves; in this sense, I speak of *subjective* rationality. See Lewis (1982) for an informative discussion of the many facets of rationality in economic behavior.

14. Studies exploring in greater depth the psychological dynamics of intrafamilial financial expectations are needed to shed light on this hypothesis. Indirect evidence suggests that there are contradictions in these expectations. Divorce and geographical mobility have tended to weaken family ties, but in modern society the family remains, for better or worse, a "haven in a heartless world" (Lasch, 1977). Yet studies of household income reveal that when social security benefits go up, so does the number of old people living in poverty, the plausible explanation being that elderly parents use their little extra income to move out of their children's homes to set up their own households.

15. This argument is closely related to, and fully consistent with, studies by Barro (1974) and others discussed earlier that found intergenerational bequests to be a significant factor in savings behavior.

16. In an experimental setting, the Prisoner's Dilemma game similarly reflects the limits of individualistic rationality. See Sen (1977) for a discussion of this point.

17. In contrast, leftist critics of social security and other welfare policies view social security and other welfare programs primarily as a means of controlling mass insurrection among the poor (Piven and Cloward, 1971).

18. This exclusion seems to be based on the judgment that emotional states do not play a sufficiently important role in economic decisions to merit inclusion, since the existence of compassion and sympathy does not pose any inherent contradiction to utility maximization. For example, Sen (1977) notes that "pleased at others' pleasure and pained at others' pain... one's own utility may thus be helped by sympathetic action" (p. 326).

19. Sen (1977) defines commitment as "a person choosing an act that he believes will yield a lower level of personal welfare to him than an alternative that is also available to him" (p. 327). As examples of commitment, Sen cites allegiance to class and community, and he argues that conceptually, such loyalties cannot be analyzed within the framework of utility maximization. On this last point I disagree: individuals who act according to their allegiances, either to social groups or to belief systems, may well be maximizing utilities that are intangible but no less important to their psychological satisfaction.

20. For further discussion of mass attitudes and beliefs, see Coughlin (1980, 1982); Litwak, Hooyman, and Warren (1973); and Huber and Form (1973). The general point here is that the study of social security should not be reduced solely to economic terms. For example, Smedley (1977) argues that social security "is not simply an economic institution," and that it "has developed out of the cultural, psychological, and sociological factors of our society" (p. 156). Harris and Marmor (1977) observe that the current emphasis economists place on the question of rates of return may be less helpful than it seems in understanding the equity of social security, because large intergroup variations in returns do not necessarily imply that the system is inequitable. Myles (1981) is critical of the use of market concepts to analyze the performance of social security, which is epitomized by some economists' preoccupation with the system's multitrillion-dollar "unfunded liabilities."

REFERENCES

Aaron, Henry, "The Social Insurance Paradox," *Canadian Journal of Economics and Political Science*, 32 (August 1966), 371–374.

Aaron, Henry, "Demographic Effects on the Equity of Social Security Benefits," in Martin Feldstein and Robert Inman, eds., *The Economics of Public Services*. London and Basingstoke: Macmillan Press, 1977, pp. 151–173.

Achenbaum, W. Andrew, *Old Age in the New Land*. Baltimore: Johns Hopkins University Press, 1978.

Armour, Philip K., and Richard M. Coughlin, "The Social Control Functions of Welfare Spending." Paper prepared for presentation at the Meetings of the Southwestern Social Sciences Association, San Antonio, Texas, March 1982.

Armour, Philip K., and Richard M. Coughlin, "Social Security and Social Control: Theory and Research in Communist and Capitalist Nations," *Social Science Quarterly*, 66 (December 1985), 770–788.

Barro, Robert J., "Are Government Bonds Net Wealth?" *Journal of Political Economy*, 82 (November–December 1974), 1095–1117.

Barro, Robert J., *The Impact of Social Security on Private Saving: Evidence from the U.S. Time Series*. Washington, DC: American Enterprise Institute, 1978.

Break, George F., "Social Security as a Tax," in Michael J. Boskin, ed., *The Crisis in Social Security*. San Francisco, CA: Institute for Contemporary Studies, 1977, pp. 107–124.

Break, George F., "The Economic Effects of the OASI Program," in Felicity Skidmore, ed., *Social Security Financing*. Cambridge, MA: MIT Press, 1981, pp. 45–80.

Brittain, John A., *The Payroll Tax for Social Security*. Washington, DC: Brookings, 1972.

Boskin, Michael J., "Social Security and Retirement Decisions," *Economic Inquiry*, 15 (January 1977), 1–24.

Boskin, Michael J., and Marc Robinson, "Social Security and Private Savings: Analytical Issues, Econometric Evidence, and Policy Implications." Prepared for Special Study of Economic Change, U.S. Congress Joint Economic Committee, Department of Economics, Stanford University, and National Bureau of Economic Research, March 1980.

Brittain, John A., *The Payroll Tax for Social Security*. Washington, D.C.: Brookings Institution, 1972.

Browning, Edgar K., "Social Insurance and Intergenerational Transfers," *Journal of Law and Economics*, (October 1973), 215–237.

Buchanan, James M., "Social Insurance in a Growing Economy: A Proposal for Radical Reform," *National Tax Journal*, 21 (1968), 386–395.

Cagan, Phillip, *The Effect of Pension Plans on Aggregate Savings*. Washington, DC: National Bureau of Economic Research, 1965.

Campbell, Colin D., and Rosemary G. Campbell, "Conflicting Views on the Effect of Old-Age and Survivors Insurance on Retirement," *Economic Inquiry*, 14 (September 1976), 369–386.

Campbell, Rita Ricardo, "The Problems of Fairness," in Michael J. Boskin, ed., *The Crisis in Social Security*. San Francisco, CA: Institute for Contemporary Studies, 1977, pp. 125–146.

Cantril, Albert, "Comments," in Felicity Skidmore, ed., *Social Security Financing*. Cambridge, MA: MIT Press, 1981, pp. 274–277.

Cates, Jerry R., *Insuring Inequality*. Ann Arbor: University of Michigan Press, 1983.

Coughlin, Richard M., *Ideology, Public Opinion & Welfare Policy*. Berkeley: Institute of International Studies, University of California, 1980.

Coughlin, Richard M., "Payroll Taxes for Social Security in the United States: The Future of Fiscal and Social Policy Illusions," *Journal of Economic Psychology*, 2 (1982), 165–185.

Darby, Michael R., *The Effects of Social Security on Income and the Capital Stock*. Washington, DC: American Enterprise Institute, 1979.

Derthick, Martha, *Policymaking for Social Security*. Washington, DC: Brookings Institution, 1979a.

Derthick, Martha, "How Easy Votes on Social Security Came to an End," *Public Interest*, 54 (Winter 1979b), 94–105.

Diamond, P.A., "A Framework for Social Security Analysis," *Journal of Public Economics*, 8 (1977), 275–298.

Feldstein, Martin S., "Social Security, Induced Retirement, and Aggregate Capital Accumulation," *Journal of Political Economy*, 82 (September–October 1974), 905–926.

Feldstein, Martin S., "Social Security and Saving: The Extended Life Cycle Theory," *American Economic Review, Papers and Proceedings*, 66 (May 1976a), 77–86.

Feldstein, Martin S., "Social Security and the Distribution of Wealth," *Journal of the American Statistical Association*, 71 (December 1976b), 800–807.

Feldstein, Martin S., "Social Security," in Michael J. Boskin, ed., *The Crisis in Social Security*. San Francisco, CA: Institute for Contemporary Studies, 1977, pp. 17–24.

Feldstein, Martin S., "Social Security and Private Savings: Another Look," *Social Security Bulletin*, 42 (May 1979a), 36–39.

Feldstein, Martin S., "The Effect of Social Security on Saving." Working Paper 355. Washington, DC: National Bureau of Economic Research, May 1979b.

Feldstein, Martin S., "Social Security, Induced Retirement, and Aggregate Capital Accumulation: A Correction and Updating." Working Paper 579. Washington, DC: National Bureau of Economic Research, November 1980.

Feldstein, Martin S., and Anthony J. Pellechio, "Social Security and Household Wealth Accumulation: New Microeconometric Evidence," *Review of Economics and Statistics*, 61 (August 1979), 361–368.

Ferrara, Peter J., *Social Security: The Inherent Contradiction*. San Francisco, CA: Cato Institute, 1980.

Free, Lloyd A., and Hadley Cantril, *The Political Beliefs of Americans*. New York: Simon & Schuster, 1968.

Friedman, Milton, *Essays in Positive Economics*. Chicago, IL: University of Chicago Press, 1953.

Friedman, Milton, *Capitalism and Freedom*. Chicago, IL: University of Chicago Press, 1962.

Friedman, Milton, "Payroll Taxes, No; General Revenues, Yes," in Michael J. Boskin, ed., *The Crisis in Social Security*. San Francisco, CA: Institute for Contemporary Studies, 1977, pp. 25–30.

Friedman, Milton, "The Poor Man's Welfare Payment to the Middle Class," *The Washington Monthly*, (May 1972), 16.

Goodwin, Leonard, and Joseph Tu, "The Social Psychological Basis for Public Acceptance of the Social Security System," *American Psychologist*, (September 1975), 875–883.

Harris, Robert, and Theodore Marmor, "Comment on Palmer," in G.S. Tolley and Richard V. Burkhauser, eds., *Income Support Policies for the Aged*. Cambridge, MA: Ballinger, 1977, pp. 177–179.

Hart, Peter D., Research Associates, *A Nationwide Survey of Attitudes toward Social Security*. Mimeograph, 1979.

Huber Joan, and William Form, *Income and Ideology*. New York: Free Press, 1973.

Janowitz, Morris, *Social Control of the Welfare State*. New York: Elsevier, 1976.

Katona, George, *Private Pensions and Individual Savings*. Ann Arbor: University of Michigan, Survey Research Center, 1965.

Koeppel, Barbara, "How America's Elderly Get Short-Changed," *Los Angeles Times* (April 18, 1976).

Kotlikoff, Laurence J., "Social Security and Equilibrium Capital Intensity," *Quarterly Journal of Economics*, 93 (May 1979a), 233–253.

Kotlikoff, Laurence J., "Testing the Theory of Social Security and Life Cycle Accumulation," *American Economic Review*, 69 (June 1979b), 396–410.

Lasch, Christopher, *Haven in a Heartless World: The Family Besieged*. New York: Basic Books, 1977.

Leimer, Dean R., and Selig D. Lesnoy, "Social Security and Private Savings: A Reexamination of the Time Series Evidence Using Alternative Social Security Wealth Variables." Paper prepared for presentation at the Annual Meeting of the American Economic Association, Washington, DC, August 1980.

Lewis, Alan, *The Psychology of Taxation*. New York: St. Martin's, 1982.

Litwak, Eugene, Nanct Hooyman, and Donald Warren, "Ideological Complexity and Middle-American Rationality," *Public Opinion Quarterly*, 37 (Fall 1973), 317–332.

Lubove, Roy, *The Struggle for Social Security, 1900–1935*. Cambridge, MA: Harvard University Press, 1968.

Manser, Marilyn E., "Historical and Political Issues in Social Security Financing," in Felicity Skidmore, ed., *Social Security Financing*. Cambridge, MA: MIT Press, 1981, pp. 21–44.

Marshall, T.H., *Class, Citizenship, and Social Development*. Garden City, NY: Doubleday, 1964.

Morgan, James N., "An Economic Theory of the Social Security System and Its Relation to Fiscal Policy," in G.S. Tolley and Richard V. Burkhauser, eds., *Income Support Policies for the Aged*. Cambridge, MA: Ballinger, 1977, pp. 107–126.

Morgan, James N., "Myth, Reality, Equity, and the Social Security System," *Challenge*, (March–April 1978), 59–61.

Munnell, Alicia H., *The Effect of Social Security on Individual Saving*. Cambridge, MA: Ballinger, 1974a.

Munnell, Alicia H., "The Impact of Social Security on Personal Savings," *National Tax Journal*, 27 (December 1974b), 553–567.

Munnell, Alicia H., *The Future of Social Security*, Washington, DC: Brookings Institution, 1977.

Musgrave, Richard A., "A Reappraisal of Social Security Financing," in Felicity Skidmore, ed., *Social Security Financing*. Cambridge, MA: MIT Press, 1981, pp. 89–128.

Myles, John, "The Trillion Dollar Misunderstanding," *Working Papers*, (July–August 1981), 23–31.

O'Connor, James, *The Fiscal Crisis of the State*. New York: St. Martin's Press, 1973.

Ozawa, Martha N., "Income Redistribution and Social Security," *Social Service Review*, 50 (June 1976), 209–235.

Palmore, E., "Retirement Patterns Among Aged Men: Findings of the 1963 Survey of the Aged," *Social Security Bulletin*, 27 (August 1964), 3–10.

Parsons, Donald O., and Douglas R. Munro, "Intergenerational Transfers in Social Security," in Michael J. Boskin, ed., *The Crisis in Social Security*. San Francisco, CA: Institute for Contemporary Studies, 1977, pp. 41–64.

Pechman, Joseph A., Henry J. Aaron, and Michael K. Taussig, *Social Security: Perspectives for Reform*. Washington, DC: Brookings Institution, 1968.

Pellechio, Anthony J., "The Effect of Social Security on Retirement." Working Paper 260. Washington, DC: National Bureau of Economic Research, July 1978a.

Pellechio, Anthony J., "The Social Security Earnings Test, Labor Supply Distortions, and Foregone Payroll Tax Revenue." Working Paper 272. Washington, DC: National Bureau of Economic Research, August 1978b.

Pellechio, Anthony J., "Social Security Financing and Retirement Behavior," *American Economic Review: Papers and Proceedings*, 69 (May 1979), 284–287.

Piven, Frances Fox, and Richard Cloward, *Regulating the Poor*. New York: Random House, 1971.

Plotnick, Robert D., and Felicity Skidmore, *Progress Against Poverty: A Review of the 1964–74 Decade*. New York: Academic Press, 1975.

Pogue, Thomas F., and L.G. Sgontz, "Social Security and Investment in Human Capital," *National Tax Journal*, 30 (June 1977), 157–169.

Reno, V., "Why Men Stop Working at or Before Age 65: Findings from the Survey of New Beneficiaries," *Social Security Bulletin*, 34 (June 1971), 3–17.

Rosen, Sherwin, "Social Security and the Economy," in Michael J. Boskin, ed., *The Crisis in Social Security*. San Francisco, CA: Institute for Contemporary Studies, 1977, pp. 87–106.

Samuelson, Paul A., "An Exact Consumption-Loan Model of Interest with or without the Social Contrivance of Money," *Journal of Political Economy*, 66 (December 1958), 467–482.

Schiltz, Michael E., "Public Attitudes toward Social Security 1935–1965." Research Report No. 33. Washington, DC: U.S. Department of Health, Education, and Welfare, Social Security Administration, Office of Research and Statistics, 1970.

Schulz, James H., *The Economics of Aging*. Belmont, CA: Wadsworth, 1980.

Shore, Warren, *Social Security: The Fraud in Your Future*. New York: Macmillan, 1975.

Sen, Amartya K., "Rational Fools: A Critique of the Behavioral Foundations of Economic Theory," *Philosophy and Public Affairs*, 6 (Fall 1976–Summer 1977), 317–344.

Smedley, Lawrence T., "Comment on Laffer and Ranson," in G.S. Tolley and Richard V. Burkhauser, eds., *Income Support Policies for the Aged*. Cambridge, MA: Ballinger, 1977, pp. 151–156.

Stein, Bruno, *Social Security and Pensions in Transition*. New York: The Free Press, 1980.

Thompson, Gayle B., "Pension Coverage and Benefits, 1972: Findings from the Retirement History Study," *Social Security Bulletin*, 41 (February 1978), 3–17.

Tomasson, Richard F., "Old-age Pensions under Social Security: Past and Future," *American Behavioral Scientist*, 26 (July-August 1983), 699–723.

Viscusi, W. Kip, and Richard J. Zeckhauser, "The Role of Social Security in Income Maintenance," in Michael J. Boskin, ed., *The Crisis in Social Security*. San Francisco, CA: Institute for Contemporary Studies, 1977, pp. 41–64.

U.S. Department of Health and Human Services, Social Security Administration, Office of Research and Statistics, *Social Security Bulletin, Annual Statistical Supplement*. Washington, DC: U.S. Government Printing Office, 1983.

Weaver, Carolyn L., *The Crisis in Social Security*. Durham, NC: Duke Press Policy Studies, 1982.