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9 The Genesis and Evolution of Social Security

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Social security is the largest transfer program in the United States. In 1994, total tax collections under old-age and survivors insurance (OASI, the largest part of social security, and the part on which we focus in this paper) were $293 billion, or 4.2 percent of GDP. Benefit payments were $279 billion. Thirty-seven million people received benefits, and 139 million workers paid taxes on their wages or self-employment income. OASI accounted for 40 percent of the income of the aged in 1992, paying benefits to more than 90 percent of those aged 65 and over and providing more than half of total income to 63 percent of beneficiary units (U.S. Department of Health and Human Services [HHS] 1994b, 1995).

In this paper we examine the genesis and evolution of social security in the United States, with special attention to the role of the Great Depression. We ask to what extent the program as it exists today is the same as that created during the depression. Has social security developed in the past six decades according to an original plan, or have subsequent legislation and changes in the environment in which the program operates fundamentally altered it? As a subsidiary question, we ask to what extent social security as it exists today bears the imprint of the Great Depression. We identify the features of the program that were most influenced by the depression and ask whether these features have endured.

We begin in section 9.1 by describing social security as created during the Great Depression. We highlight the key features of the program and ask how its initial design was likely to affect its subsequent evolution.

In section 9.2 we discuss the economic and political factors that determined

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the specific design chosen for social security. Perhaps surprisingly, our conclusion is that economic factors played a relatively small role, while both precedent and political factors, which were not obviously related to the Great Depression, were far more important. This conclusion does not mean economic factors were irrelevant; indeed, absent the depression, social security might not have been created at all. But, overall, the type of program adopted appears to have been remarkably unaffected by the economic circumstances in which it was created.

Section 9.3 examines the evolution of the program in the six decades since the Great Depression. By many measures, social security has grown enormously during this period, yet there has also been surprising continuity. Much of the growth was built into the original legislation, or else resulted from extensions that were consistent with the plans of the program's architects. While there have been numerous substantive modifications in the workings of social security, we show that the most significant changes in the program's operation have resulted from unanticipated changes in the conditions under which it operates, rather than from legislation.

9.1 Social Security as Designed in 1935–39

The social security system that emerged from the Great Depression was created in two steps. The Social Security Act of 1935 established much of the basic structure, but a substantial amendment to the act in 1939 produced a system that was materially different in several ways.

9.1.1 Old-Age Insurance and Old-Age Assistance

In his message to Congress on social security (17 January 1935), Roosevelt called for a multipronged assault on poverty in old age: "First, noncontributory old-age pensions for those who are now too old to build up their own insurance. It is, of course, clear that for perhaps thirty years to come funds will have to be provided by the States and the Federal Government to meet these pensions. Second, compulsory contributory annuities which in time will establish a self-supporting system for those now young and for future generations" (Zevin 1947, 44).[1]

Three titles of the Social Security Act, signed into law on 14 August 1935, dealt with the aged. Title I made provision for federal subsidies to old-age assistance (OAA) programs administered by the states. The program that is now called social security was originally called old-age insurance (OAI) and was created by Titles II (benefits) and VIII (payroll taxes) of the act. The

1. Roosevelt called for a third program, voluntary contributory annuities that would supplement the compulsory program and provide for individuals not covered by the compulsory program. This program, which had also been recommended by the Committee on Economic Security, was never enacted. "Pensions" in the usage of the time generally referred to noncontributory payments to the elderly.

division of OAI between two titles was motivated by the fear of legal challenges.[2]

OAA was a program of grants-in-aid to states to provide cash payments to destitute aged. In states with plans that met the act's criteria, the federal government agreed to pay half of the cost of assistance, up to a federal contribution of $15 per month per beneficiary (with no minimum benefit). States could not impose a minimum age above 65 (70 until 1940), and limits were placed on the stringency of residency requirements. The program was targeted at "aged needy individuals," but no definition of need was provided in the federal act (Committee on Economic Security [CES] 1937, chap. 11). By the end of 1938, OAA was in operation in all 48 states, the District of Columbia, Alaska, and Hawaii. Expenditures on OAA by federal, state, and local governments in 1938 were estimated to be $380 million. During September 1938, 21.6 percent of those aged 65 and over received assistance; the fraction ranged from 7.2 percent in New Hampshire to 54.5 percent in Oklahoma. The average grant was $19.21 per month. Of all married people receiving a grant, over 40 percent had a spouse receiving a separate grant (Advisory Council on Social Security [ACSS] [1938] 1977, 16).

OAI created a system of contributory old-age insurance. Unlike OAA, unemployment insurance, and aid to dependent children, it was a purely federal program. Retiring workers would receive lifetime benefit payments based on the total value of mandatory "contributions" made during working years. Contributions were to begin in 1937, with the first benefits to be paid out in 1942. The program covered almost all employees in industry and commerce but excluded domestic and farm workers, railway workers (who were covered under the railroad retirement program), the self-employed, and employees of federal, state, and local governments.

9.1.2 Taxes and Trust Funds

OAI was financed by equal taxes on employers and employees, and subsequent increases have maintained this equality of tax rates. Although economists now agree that it is irrelevant on which side of market a tax is imposed, the symbolism of the "fifty-fifty" split between workers and their employers has been important in the development of the program (Cates 1983). Taxes applied to the first $3,000 of earnings, covering 92 percent of wages earned in covered employment in 1937. Of covered workers, only 3 percent had earnings that equaled or exceeded the ceiling (Myers 1993, table 3.4; HHS 1994b, 9).

2. In early 1936, the Supreme Court struck down the Agricultural Adjustment Act, which earmarked the revenues of a specific tax on processors to be paid out to farmers who agreed to reduce production. Drafters of OAI feared that an explicit insurance program, in which taxes were earmarked to be paid out to a specific group (former contributors), would be subject to a similar challenge. They thus tried to make OAI look like separate taxation and spending schemes. Even so, Thomas H. Eliot, counsel to the CES, had "grave constitutional doubts" about the program. It was not until 1937 that the legal threat to OAI was eliminated. See Eliot (1961).

OAI began with only contributors and no beneficiaries. Thus, if the system had been funded on a pure pay-as-you-go basis, the initial tax rate would have been zero. By contrast, if the planners had desired a constant tax rate through time, the system would have built up a large trust fund in its early years, when there were few beneficiaries. The course chosen was between the two: tax rates were initially set low but scheduled to rise over time as the number of beneficiaries increased. At the same time, a trust fund was to be accumulated, with trust fund interest helping to cover benefit payments as the number of beneficiaries grew. The 1935 act established a combined employer-employee tax rate of 2 percent on covered workers, to be collected beginning in 1937.[3] It called for increases in the combined tax rate in 1 percentage point increments every three years starting in 1940, to reach a maximum of 6 percent in 1949. The 1939 act canceled the tax increase scheduled to have taken place in 1940 but called for a 2 percentage point increase in 1943, following which tax rates would follow the path specified in the 1935 act.

The 1939 act envisioned the accumulation of a trust fund that would reach $50 billion in 1980 (Parker 1942, 39). Interest on the trust fund would allow benefit payments to exceed revenue collected through payroll taxes. It was the view of the ACSS that the size of total benefit payments would be much larger than 6 percent of payrolls: "Information now available indicates that the benefit structure under Title II of the present Act will involve financing from all sources of an annual disbursement equivalent to ten to twelve per cent of covered payroll by 1980 when persons now in their twenties will be at retirement age" (ACSS [1938] 1977, 23).[4]

Recognizing that a trust fund might not be accumulated, both the CES and the ACSS envisioned that general revenues would have to supplement payroll taxes: "If the method of accumulating a relatively large reserve is eliminated, there must be, instead, the definite assurance that the program will be financed not by payroll taxes alone but, in addition, by governmental contributions from other sources. Without interest returns on a relatively large fund, payroll taxes alone would prove insufficient to meet the current disbursements necessary as the system matures" (ACSS [1938] 1977, 46).

9.1.3 Benefits

Receipt of benefits under OAI was conditional on complete withdrawal from the labor force. Under the 1935 act, no benefits were to be paid in months during which any wages were received from "regular employment," although

3. We maintain the convention of expressing tax rates as a fraction of the wage inclusive of the employer's tax payment. Thus, if a worker receives $97 after taxes, with $3 paid to the government as "employee" taxes and $3 paid as "employer" taxes, we call the payroll tax rate 6 percent. Alternatively, one could calculate the tax rate as $6/$97, or 6.19 percent.

4. The text refers to benefits payable under the 1935 act; however, the recommendations of the ACSS were designed to keep total disbursements in the 1939 act equal to those under the 1935 act. See also Derthick (1979, 233).

this term was not defined. Under the 1939 act, workers received no benefits in any month in which they earned $15 or more. The earnings test represents an area of confrontation between the different conceptions of social security, usually summarized by the terms "equity" and "adequacy." If workers earn their entitlement to benefits through their contributions, then a person who is able to work beyond age 65 should be just as entitled to get his benefits as a person who is unable to work or who chooses not to—this is the equity view. The adequacy view is that social security is a form of "social insurance" against the misfortune of forced retirement, and so people who are able to work do not deserve benefits.

Conditional on eligibility for benefits, the monthly benefit formula in the 1935 act was 1/2 percent of total lifetime covered wages up to $3,000, 1/12 percent of the next $42,000, and 1/24 percent of wages above $45,000. For a worker with annual wages of $1,000 (the average annual wage in 1937 was $979) who retired in 1942 with five years of contributions, the replacement rate would have been 20 percent. For a worker with 45 years of contributions, the replacement rate would have been 60 percent. There were no benefits for spouses or widows.

The benefit formula was changed significantly in the 1939 act, however.[5] First, while the original act had promised benefits only to former workers themselves, the 1939 act extended benefits to both spouses (50 percent of the benefit to the primary worker) and widows (75 percent of the benefit to the primary worker) and correspondingly reduced benefits to unmarried workers. The program's name was thus changed to old-age and survivors insurance (OASI). The 1935 act originally included a provision for a death benefit that would return to the estate of a deceased participant any employee contributions that had not been paid out as benefits. This was eliminated in 1939.

The most important change was a shift in the benefit formula. Under the 1935 act, benefits had been based solely on the total value of contributions. Under the 1939 act, benefits were based on both the period of time over which contributions were made, and the average wage during that period.[6] Although benefits would still rise over time as the system matured, the new formula awarded much higher benefits to those retiring in the early years of the system

5. Why was the benefit formula altered? J. Douglas Brown, who chaired the 1937–38 ACSS, which designed the 1939 act, argued: "In the pressure to design a working model of an old-age insurance system that could be described in detailed legislative language, a benefits schedule was needed to complete the blueprint. The last-minute invention inserted in the bill, though simple to explain, was bound to need revision before any benefits were paid" (Brown 1977, 3; see also Brown 1969). As mentioned above, it had not been clear in 1935 that the OAI program would be constitutional, and this uncertainty had inclined the program's designers not to worry about the details of the benefit formula. The political power of the Townsend movement also was clearly a factor in the redesign. Our conclusion that social security was not radically altered after its creation would be very different if we had viewed the 1935 plan as the original and the 1939 act as the subsequent amendment.

6. The formula for monthly benefits was $[.3 \times \min(\text{AMW}, 50) + .1 \times \min(\text{AMW}, 200)] \times (1 + .01 \times Y)$, where AMW is average monthly wages and Y is years of contribution.

relative to those retiring when the system was mature than did the 1935 act. Finally, the year in which benefit payments were to begin was moved from 1942 to 1940. The 1939 act also raised the maximum federal share of OAA benefits from $15 to $20.

9.1.4 Illustrative Calculations

Table 9.1 presents calculations designed to illustrate the provisions of the 1939 version of the program. An obvious difficulty in making these calculations is that the original design of the system did not explicitly take into account either inflation or real wage growth. Rather than try to anticipate what changes could have been expected in 1939, we simply hold prices and real wages constant. We use the scheduled phase-in of tax rates and the benefit formula from the 1939 act. We examine a married couple with a nonworking wife who is the same age as her husband. The husband is assumed to have a continuous earnings history from 1937 through retirement at age 65 at a wage of $1,000 per year.[7]

Column 2 of the table calculates the replacement rate: the fraction of the husband's preretirement income that is accounted for by his retirement benefit plus the wife's spousal benefit. To examine the size of the intergenerational transfers contemplated in the original system, we calculate two measures: the rate of return to contributions and the present value at age 65 of the transfer received by different cohorts. All three of these measures can be compared with the actual evolution of the system.

The system was designed to phase in gradually. Tax payments as a fraction of lifetime wages phased in gradually both because workers who retired in the early years of the system would have short histories of contributions and because tax rates were to rise over the first decade of the system's operation. Benefits also phased in gradually since the benefit formula rewarded extra years of contributions. Thus, early retirees had lower replacement rates than those retiring when the system was mature. The reduction in benefits for early retires was much lower than the reduction in contributions, however. Workers retiring in the early years of the program were to receive benefits more than half as large as those retiring when the system was mature, even though their histories of contributions were as little as one-tenth as long and the tax rate they paid was as little as one-third as high as those of later retirees. As a result, retirees in the early years were to receive large transfers.[8]

The system matured very slowly. Only after 1990 would workers with a full history of contributions at the maximum tax rate begin retiring. By that point, the table shows, the internal rate of return to participation in the program would be close to the 3 percent interest rate that the planners assumed would be

7. Rather than integrate over different possible dates of death, we simply assume that each member of the household lives to his or her life expectancy at age 65.

8. The calculation here does not take into account workers who died before they reached age 65 or single workers, both of which groups received much lower returns on their contributions.

Table 9.1 **Financial Characteristics of the 1939 Act**

First Year Receiving Benefits	Replacement Rate	Real Rate of Return (%)	Value of Transfer at Age 65
1940	.43	183	4,817
1950	.47	25	4,835
1960	.52	12	4,442
1970	.56	7.0	3,753
1980	.60	4.7	2,662
1990	.60	3.9	1,712

Source: Authors' calculations. Calculations assume a same-age married couple in which the husband has annual wages of $1,000 per year and a continuous work history from 1937 through age 65.

earned on trust fund reserves. The designers of social security recognized that the benefit formula involved significant transfers to cohorts who retired early in the program, but they argued that for later cohorts it was actuarially fair: "The plan outlined above contemplates that workers who enter the system after the maximum contribution rate has become effective will receive annuities which have been paid for entirely by their own contributions and the matching contributions of their employers. Workers now middle aged or older will receive annuities which are substantially larger than could be purchased by their own and the matching contributions, although considerably less than the annuities which will be paid to workers who contribute for longer periods" (CES 1935, 31).[9]

9.2 Factors in the Design of Social Security

9.2.1 The Precedents for Social Security

One set of factors determining the structure of social security was the precedent provided by preexisting programs. In the case of OAA, the precedents were state-level programs. All were of the assistance rather than the insurance variety; that is, they provided payments to the aged out of general revenues, with no mandatory or voluntary contributions by beneficiaries. Approximately 30 states had such programs by the beginning of 1935, and about 8 more adopted them in the first half of 1935, likely in anticipation of OAA.

The state programs were extremely limited in the level of old-age income support they provided. Eligibility was means tested using very low income and wealth cutoffs, and virtually all programs barred beneficiaries with financially

9. It should be noted that in a dynamically efficient economy (in which the growth rate of output is less than the interest rate), such a combination of transfers to early cohorts and actuarial fairness for all later cohorts is not possible.

competent children or other family members. The programs also typically required a minimum of 15 years U.S. citizenship and residency in the state. Yearly expenditure of all state old-age pension plans (noncontributory means-tested assistance) in 1934 was $31.2 million, and the total number of pensioners was 180,003 (CES 1935, table 14). By 1938, nearly 10 times as many people would be receiving OAA.

The precedents for OAI consisted of the preexisting social security systems in other countries. According to the CES, 20 countries had adopted compulsory, contributory old-age insurance laws by 1935, and these programs provided precedent for virtually every feature of the U.S. system. There were of course differences between the U.S. system and any given system elsewhere. Some of the insurance programs applied only to specific groups or industries, while others included groups that the initial U.S. system excluded (e.g., agricultural workers). Several of these systems made use of general tax revenues in addition to employer and employee taxes. At least one country, France, included benefits for workers who had already retired when the program was created as part of its contributory pension program.

Nevertheless, the basic similarities between these systems and the 1935–39 version of OASI were great. They were compulsory, contributory old-age insurance systems, not just old-age assistance systems. In particular, they were not means tested. The financing generally involved taxes on both employers and employees, usually at the same rate. The systems typically excluded self-employed workers, likely because of administrative difficulties.

Thus, it is tempting to conclude that the U.S. system was modeled on existing systems, rather than designed from scratch or tailored in any obvious way to the U.S. experience. Moreover, the fact that the report of the CES contained detailed and explicit material on all these systems makes clear that the planners had all the relevant models in front of them when they designed OAI, and the comments written about these other systems were generally highly approving. For example, Frances Perkins, secretary of labor and chair of the CES, stated that "we shall have to establish in this country substantially all of the social-insurance measures which the western European countries have set up in the last generation" (Schlesinger 1958, 304).

9.2.2 The Role of Political Factors

Financing the System

The first area in which political constraints seem to have been key is in the reliance on payroll taxes to finance the system. The choice was a conservative one in two senses. First, social reformers saw the payroll tax as regressive (although the benefit structure was progressive). And second, the direct link between benefits and an earmarked tax was seen as a natural way of limiting demands for benefit increases (CES 1937, 205).

The original proposal of the CES would have supplemented payroll taxes with contributions from general revenue. Supplements would not have begun until 1965 and would have been equal to roughly one-third of total benefit payments in 1980, when the system had matured (CES 1937, table 45). The idea of a federal contribution was not based on a misperception that federal revenues came from a source other than taxes. Rather, it was intended to enhance the progressivity of the system. Liberals were not shy about making this argument: "There is one defect in this old-age insurance system as set up in the act of Congress, a vital, fundamental defect. The Federal Government does not contribute to it. The Federal Government, as in many European countries, should contribute one-third of the total fund. Where will it get the money? I do not want to use this speech as a springboard for a dissertation on the maldistribution of wealth and income in this country, but I will venture to state that in a country where 87 percent of its wealth is owned by 4 percent of its population, inheritance and income taxes could well be increased for this purpose."[10]

Another argument offered for federal financial participation in the program was that the existence of an OAI program would reduce the cost of OAA. The CES estimated that, by 1980, the existence of OAI would reduce OAA expenditures by over 60 percent compared with the case in which OAI was not implemented (CES 1935, 28). More generally, it was argued that since "the nation as a whole will materially and socially benefit by such a program, it is highly appropriate that the Federal government should participate in the financing of the system" (ACSS [1938] 1977, 44).

The House Ways and Means Committee rejected the use of general revenues to supplement OAI and instead adopted a Treasury plan with a higher maximum tax rate (6 percent vs. 5 percent, with the maximum reached in 1949 rather than 1957). The idea that the system should be self-financing out of payroll taxes, which had not been part of the conception of the CES or ACSS, became over time one of the core principles of OASI. The failure to secure a promise for a contribution out of general revenues turned out to be a dubious defeat for the liberals. By not relying on future supplements, the system would not be at the mercy of future Congresses. More significantly, reliance on payroll tax financing strengthened the political perception that benefits were paid as a matter of right—that workers who received benefits had "bought" them with their payroll taxes. Roosevelt most famously stated this view: "We put those payroll contributions there so as to give the contributors a legal, moral, and political right to collect their pensions. . . . With those taxes in there, no damn politician can ever scrap my social security program" (Schlesinger 1958, 308–9; see also Romer 1995).

10. From speech on floor of U.S. House by Representative Henry Ellenbogen of Pennsylvania, 19 August 1935 (Zinn 1966, 285).

Accumulating a Trust Fund

Political considerations played a key role in the debate over the accumulation of a trust fund. But the manner in which traditional divisions were reflected in the debate was complex. Many fiscal conservatives had argued for extending benefits to the elderly who were already retired at the program's inception and for financing the system on a pay-as-you-go basis. In such a case, generous benefits would have to be immediately matched by higher taxes, thus creating a countervailing force to politicians' natural largesse. In their efforts, conservatives found allies among the Townsendites, who consistently opposed the restriction that benefits be paid only to individuals who had made contributions.[11]

At the opposite extreme, running social security on a fully funded basis struck many as the more conservative approach. Alanson Willcox, counsel for the Social Security Board, argued that "the most effective protection" against Congress's tendency to liberalize benefits "is a rigid adherence to the principle of a 'fully financed' system, and the adoption by Congress of a 'self-denying ordinance' by which—though it could have no legal force—Congress abjures forever the right to increase the benefits without simultaneous imposition of sufficient additional taxes. The unpopularity of new taxes seems to me the strongest political antidote to the popularity of increased benefits" (Willcox 1938, 300).

Many conservatives, however, feared that the accrual of a large trust fund would in itself lead to the expansion of benefits, as well as to two other evils: the expansion of other spending (since the government would have an easy market for its debt) and possible government ownership of a large chunk of the capital stock. Brown recalls that if the program had been fully funded "in 1934, there was no prospect that there would be enough federal securities in which to invest it" (1969, 12).[12] "It is scarcely conceivable," argued one Republican senator, "that rational men should propose such an unmanageable accumulation of funds in one place in a democracy" (quoted in Derthick 1979, 232; see Derthick 1979, chap. 11, for more on this subject).

Liberals, too, were divided about the wisdom of collecting a large trust fund. To some, the accumulation of a trust fund was the only way to guarantee the long-term viability of the program. But Leff (1988) argues that allowing the

11. See Derthick (1979, chap. 11). In 1953 the Chamber of Commerce proposed a reform of social security that would have eliminated OAA and extended OAI benefits to all the elderly, whether or not they had made contributions. Financing would be on a pay-as-you-go basis via a payroll tax. The measure was designed to control the natural tendency toward expansion by making it clear that workers were not putting aside money for their own retirements but rather supporting the current elderly. It was introduced into Congress in 1953 but died there. See Derthick (1979, chap. 6) and Romer (1995).

12. Federal debt held by the public at the end of fiscal 1935, $28.7 billion, was roughly half as large as the eventual size of the social security trust fund under the scheme that was finally adopted. But this was itself only a partial reserve, which was to be much smaller than the full reserve called for by Willcox.

trust fund not to materialize made it more likely that future shortfalls in financing would be made up from general revenues rather than by payroll taxes, a plan that had always had liberal support.

Debates about implementing the scheduled tax increases in the early years of the program centered on the ratio of the trust fund to annual benefit payments, which would have been enormous in the early years under the original schedule of tax increases. Of course, given the structure of the program this was inevitable—but it nonetheless served as a powerful argument against the increases (see Leff 1988).

The Division between Old-Age Assistance and Old-Age Insurance

While OAA was simply an extension of existing state programs, OAI was completely new. To politicians and reformers, the contrast between the two programs was stark: "Contributory annuities are unquestionably preferable to noncontributory pensions. They come to the workers as a right, whereas the noncontributory pensions must be conditioned upon a 'means' test. Annuities, moreover, can be ample for a comfortable existence, bearing some relation to customary wage standards, while gratuitous pensions can provide only a decent subsistence" (CES 1935, 25). Under OAA, benefits would be "conditional on [the retiree's] accepting either scrutiny of his personal affairs or restrictions from which others are free" (Ball 1988, quoting from the report of the 1949 ACSS). In contrast, it was argued of OAI that "such a method of encouragement of self-help and self-reliance in security protection in old age is essentially in harmony with individual incentive within a democratic society" (ACSS [1938] 1977, 16–17). Freedom from reliance on means-tested pensions, such as OAA, was a matter of dignity.

The restriction of OAI benefits to workers who had made contributions during their working years was a crucial feature of the program—perhaps the most important one for its later development. Although the possibility of "blanketing in" the currently elderly (i.e., paying OAI benefits to workers who had not made contributions) was frequently raised, it was never implemented. The original design of the system made large transfers to workers who had contributed for only short periods, and subsequent changes increased the size of these transfers, but the rule that retirees who never made contributions (and were not the dependents of a contributor) could not receive benefits was always maintained. The design of OAI, in which benefits were conditioned on previous contributions, meant that the program could do nothing to help the currently retired. Indeed, under the 1935 act, even those retiring soon after 1942 would receive relatively small benefits, since they would have contributed for only a short period of time. (The 1939 act raised the replacement rate for workers reaching retirement age in the near future and also moved forward the starting date for benefits.) Thus, OAA was the only program addressed to the immediate burden of old-age poverty. Current retirees who were not poor would receive nothing. Many observers argued that the division between OAA and

OAI, and in particular OAI's exclusion of those already retired at the program's inception, was conducive to the expansion of OAI benefits. Since there were few beneficiaries in the program's early years, increases in benefits could be paid for by reducing the accumulation of the trust fund, rather than by explicit tax increases. Contributors would be in favor of high benefits, since they would think that they were "earning" similar benefits for themselves. Derthick summarizes this aspect of the design: "As did their conservative critics, [program executives] recognized that its initial incompleteness could in the long run serve their goals. By doing less initially, insurance would do more when mature, because artificially low costs would foster liberalizations the full burden of which would not be felt for many years" (1979, 223).

9.2.3 The Role of Economic Factors

The Economic Situation of the Elderly

Perhaps the most obvious economic factor that should have played a role in the design of social security was the economic situation of the elderly both before and during the Great Depression.

The trend in retirement in the period before the Great Depression has been the subject of recent debate. Ransom and Sutch (1986, 1988) argue that the labor force participation rate for men over age 60 was roughly constant between 1870 and 1930. Costa (1996) and Moen (1994) take issue with this view, arguing that the decline in the labor force participation of older men predates social security by half a century. Estimates of the level of participation on the eve of the depression are less controversial: in 1930, labor force participation for men aged 65 and over was 58 percent (Costa 1996).

In addition to high labor force participation (by today's standards), the period before the depression was characterized by lower life expectancy. The probability that a 40-year-old man would live to reach age 65, computed using cross-sectional mortality probabilities from 1930, was only .61. High labor force participation combined with high mortality meant that few people would actually experience "retirement." Carter and Sutch (1996), using data from 1900 and 1910, estimate that a 55-year-old man had a 21.5 percent probability of retiring before he died, excluding "death-bed retirement."

A large fraction of the retirement that did take place in the period before social security was due to ill health. In the 1940 census, of men aged 65–74 who were not in the labor force, 71.7 percent reported themselves unable to work (Ransom and Sutch 1988, table 1.4).

Much of the discussion of old-age security stressed that secular changes were underway that made such a program necessary. There was a common view that machine production burned out workers at a younger age than previous technology. Similarly, large, modern organizations did not allow for a gradual reduction of work, and scientific management did not allow for the informal on-the-job pensions that had been common (Graebner 1980). "The small

shop and business, moreover, which formerly absorbed a considerable percentage of older workers, who dropped out of more strenuous industrial pursuits, are becoming less and less prevalent. This trend reduces the economic opportunities previously open to men and women after their peak of physical activity was passed" (CES 1937, 148).

The CES reported that the fraction of the population aged 65 and over had risen from 4.1 percent in 1900 to 5.4 percent in 1930 and was forecast to reach 7.7 percent by 1950 (CES 1935, table 13). This rapid increase put further pressure on the informal support system for the aged: "This increase of older persons in the group which is employed or seeking work means that, unless the number of employment opportunities increases at the same rate, the competition for employment will become keener and more difficult as time goes on. In such competition the position of older persons tends to become more and more unfavorable" (CES 1937, 143).

Private pensions did exist in the United States in the period before the Great Depression, although they were not very widespread. The CES estimated that 3.5 million workers (roughly 7 percent of the labor force) were covered by pensions in 1930 (CES 1937, 172). To a large extent, these pension plans seem to have been worker discipline devices. The pensions typically had long minimum service requirements, and employees lost all accrued pension eligibility if they quit or went on strike (CES 1937, 172–80; Lubove 1968, 132). In 1935, 75 percent of employees of federal, state, and local governments were enrolled in retirement systems. The program for federal workers, established in 1920, required workers to contribute 3.5 percent of their wages to a retirement fund, with varying contributions from their employer (CES 1937, 179).

The CES argued that the Great Depression had greatly exacerbated the plight of the elderly. The committee claimed that the elderly were among the first to lose their jobs. A May 1934 survey of people receiving relief and looking for employment showed that of those aged 65 and over, 30.8 percent had been unemployed for over two years, compared with 17.4 for people of all ages (CES 1937, table 31).[13] Since they were more dependent on savings than young workers, the elderly were thought to be especially vulnerable in the financial collapses that accompanied the downturn in output. Finally, the depression put strain on the traditional family support system. The CES estimated that between 30 and 50 percent of the aged were supported by children, friends, and relatives. "During the present depression, this burden has become unbearable for many of the children, with the result that the number of old people dependent upon public or private charity has greatly increased" (CES 1935, 24). The

13. Similar evidence comes from Ransom and Sutch's calculations of labor force participation rates for men from the 1930 population census and the 1937 enumerative check census, adjusted for comparability. The participation rate for men aged 55–59 rose from 89.5 to 90.9, and for men aged 60–64 rose from 82.6 to 83.7, while the rate for men aged 65–74 fell from 63.1 to 57.7 (Ransom and Sutch 1988, table 1.1). By 1937 OAA payments had begun, so some of this decline in labor force participation could have been a response to this program.

CES also argued that the effects of the depression would be felt for a long time to come, since many families had seen their lifetime savings wiped out.

Recent literature has questioned the accuracy of this view as well as the motives of the social reformers who promulgated it. Haber and Gratton (1994) argue that one of the most powerful facts cited by the reformers—the rise in the fraction of the poorhouse population made up of the aged, from 25.6 percent in 1880 to 53.8 percent in 1923—was actually a statistical artifact: the fraction of the population that was aged had grown, while the fraction of the aged in poorhouses remained constant. Weaver (1987) makes the case that prior to the Great Depression, the economic position of the elderly was fairly secure: most owned their own homes and lived off labor income, which was supplemented by emerging private pension plans as well as life insurance and family support.

Gratton (1996) shows that the cross-sectional age-earnings profile for men had the same shape in 1935 as it had in 1890. Though there was a decline in earnings at older ages, it was modest in size and had not changed over time. Gratton's methodology is subject to the major drawback that his data set covers only households with economically active male heads, however; retired or unemployed older workers are excluded. Thus, to the extent that the impoverishment of the elderly took the form of the elimination of jobs, rather than wage reductions, he will be unable to detect it. This point is amplified in examining the effects of the depression, during which low employment, rather than low wages, was the problem facing the economy.

Gratton also questions the conclusion that the depression hit the elderly especially hard. By examining the welfare of the elderly outside the family context, reformers such as those staffing the CES drew an exaggerated picture of their plight. Gratton quotes internal analyses by the Social Security Board of a survey from 1935–36, showing, for example, that per capita household income peaked for persons aged 60–64, at $627. For people aged 65 and over, average per capita income was only slightly lower, $601. This finding is not as inconsistent with the view of the CES as it might at first appear, however, since the reformers were not concerned with the status of the *average* elderly person, but with an unlucky fraction of that group.

The High Level of Unemployment

Economic factors appear to have played a more important role along a different dimension. Social security was created during a time of high unemployment, and it is often argued that one purpose of the program was to reduce unemployment by encouraging elderly workers to leave the labor force. The main way in which social security encourages workers to exit the labor force is through the earnings test: since benefits cannot be collected while one continues to work, the price of retirement is reduced. To the extent that social security represents forced saving during working years, there is also an income effect that encourages retirement.

Economists generally reject the "lump of labor" view under which such a policy would reduce unemployment in the long run, and several contemporaries denied that this view was the justification for the earnings test. Robert Myers, who began working for the CES in 1934 and served as chief actuary for the Social Security Administration from 1947 to 1970, argued: "Many people assert that the main purpose of establishing the Social Security program was to get older workers to retire and make jobs available for younger workers. Again, this was at most a minor factor. Actually not many workers aged 65 and over would be eager to retire on a benefit of about $15–$20 a month (when the average wage was about $90). Moreover, the Social Security program would not be very expeditiously effective in this manner because, under the original 1935 law, monthly benefits would first be payable so long afterward—in 1942!" (Myers 1993, 232).

The lump-of-labor view seems to have been more influential than academically oriented participants in the process let on, however. For example, the CES wrote that "under the method of old-age assistance superannuated persons are encouraged to compete in the labor market as long as possible to eke out a more satisfactory existence. . . . The effect on the employment opportunities of younger men and upon wage rates might prove most unfortunate. Under a system of old-age insurance, the opposite effect would ensue. Since retirement from regular employment could be made a condition for receipt of benefits, the displacement of superannuated workers from the labor market would be accelerated" (CES 1937, 198). Similarly, debates in Congress stressed the role of the program in reducing unemployment. Barbara Armstrong, one of the small group within the CES involved in designing OAI, recalled that "the interest of Mr. Roosevelt was with the younger man" (quoted in Graebner 1980, 186) and that one of the intended functions of the program was to create job opportunities for the young.

As to Myers's argument that the earnings test could not have been targeted at unemployment because it would have no effect until 1942, it should be recalled that in the mid-1930s, it was not obvious that unemployment was a temporary problem. Robert Wagner, the Senate sponsor of the Social Security Act, argued that even in normal times technology would create a large group of unemployed workers, which social security could encourage to leave the labor force (Graebner 1980, 185; for more on this point, see 184–90).

9.3 The Subsequent Development of Social Security

9.3.1 Changes in the Program

Extensions of Coverage

One important change that has occurred in social security has been extensions of coverage to groups of workers not initially included in the system. The fraction of the labor force covered rose from 63.7 percent in 1940 to 77.8

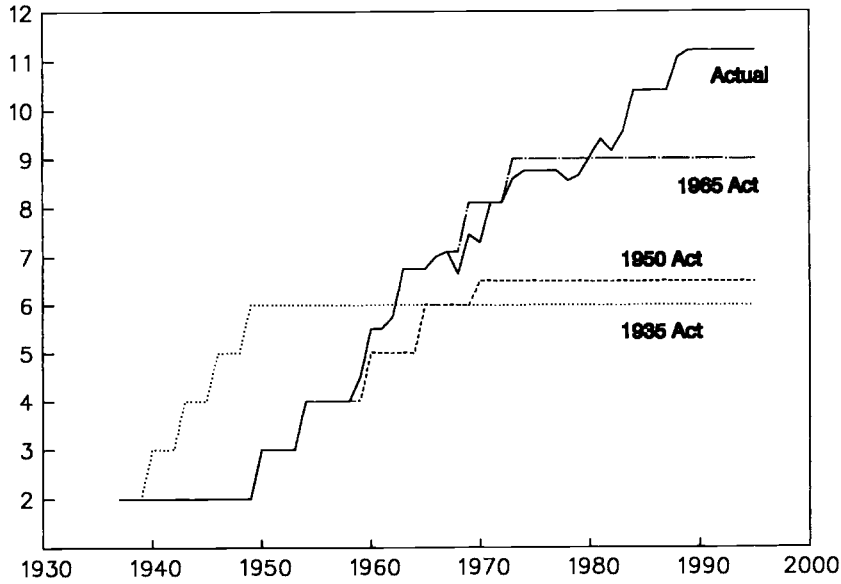

Fig. 9.1 Scheduled and actual OASI tax rates

percent in 1950, due largely to the decline in unemployment. The 1950 act extended coverage to nearly all private employees, including regularly employed farm and domestic workers, government employees not covered by existing retirement systems, and some nonfarm, self-employed workers. A total of 10 million new workers were brought into the system, bringing the fraction of the labor force covered to 93.7 percent in 1951. The 1954 act brought in self-employed farmers, and the 1956 act brought in all self-employed professionals other than physicians (who were covered in 1965). The 1983 act extended coverage to federal civilian employees hired after that year (Myers 1993, 232–38). By 1993, 97.6 percent of the labor force was covered.

These extensions in coverage were unquestionably expansions in the scope of social security. Nevertheless, it is natural to view these as consistent with the plans of social security's architects. The expansion of coverage to all workers was a goal espoused by the 1937–38 ACSS as well as all those that followed it (see ACSS [1938] 1977, 39–41; Ball 1988; Myers 1993, 234, 478).

Taxes and Trust Fund

Figure 9.1 shows actual OASI tax rates as well as the scheduled paths of future tax rates incorporated into the 1935, 1950, and 1965 acts.[14] Politicians persistently failed to anticipate how high tax rates would have to rise in the

14. Schedules for future tax rates were included in all of the acts but are not shown here for clarity. See HHS (1994b, table E) for the full set.

long run. But in the early years of the program there was an equally significant mismatch between expectations and reality: Congress repeatedly refused to implement scheduled tax increases, despite strong objections from the Social Security Administration. They refused both because of already high taxes during the war and because of conservative fears of the consequences of building up a large trust fund.[15]

Not surprisingly, given the frequent adjustments of benefit formulas and tax rates, the social security trust fund has not followed the path envisioned by the system's planners. Indeed, no large trust fund ever appeared. Under the original plan, interest on the trust fund should have covered roughly one-third of benefits when the system was mature. In fact, interest on the trust fund covered 27 percent of benefits in 1950 (when the system still had few beneficiaries), 4.8 percent in 1960, 5.3 percent in 1970, 1.8 percent in 1980, and 7.3 percent in 1990 (the last figure reflecting the buildup of the trust fund scheduled under the 1983 act; calculations based on Myers 1993, table 10.29).

Benefits

A second major class of legislative changes in social security has been to the formula for paying benefits. The 10 million new workers who were brought under social security in the 1950 act, as well as those already covered, were given a "new start" by basing the calculation of benefits on average wages after 1950. Thus, members of the newly covered groups who retired soon after 1950 (having contributed for at least six quarters) received full benefits, and a large transfer. The 1950 act also eliminated the increment for additional years of contributions that had been present in the 1939 system (and in turn had been a watered down remainder of the 1935 act, which based benefits on cumulative wage credits). The effect of this change was to eliminate the gradual rise in the replacement rate discussed above. Under the 1950 act, the replacement rate would be the same for workers retiring soon, with short contribution histories, as it would for workers retiring later, with full histories of contributions. To offset this, the level of benefits was lowered.

The period since the enactment of social security has seen both rapid real wage growth and high inflation. The Social Security Act did not anticipate either of these eventualities. It may be that this was because they were not

15. The ceiling for wages on which taxes were assessed, set at $3,000 by the 1935 act, was not adjusted until 1950, with the result that the fraction of wages in covered employment subject to the tax fell from 92 percent to 79.7 percent. Between 1950 and 1968, the ceiling was adjusted on an ad hoc basis—the fraction of wages subject to the tax was set at roughly 80 percent by each new act but fell between acts as wages rose. At the most extreme, in 1965 only 71.3 percent of wages were subject to tax, and in that year 36 percent of workers had earnings that exceeded the ceiling (compared to 3 percent in 1939). Under the 1972 act, the ceiling was indexed to the average level of wages, but legislation in 1973 and 1977 raised the ceiling beyond the increase due to wage growth. By 1983, 90 percent of wages were subject to tax. Since then the fraction has fluctuated between 85 and 90 percent. In 1993, 6 percent of workers had earnings that exceeded the ceiling. See Myers (1993, table 3.4; HHS 1994b, 9).

Table 9.2 **Actual Characteristics of OASI**

Year Cohort Turns 65	Replacement Rate in First Year of Retirement	Real Rate of Return (%)	Value of Transfer at Age 65	Transfer as Percentage of Lifetime Earnings
1940	39.1	135.1	21,800	4.45
1945	25.9	37.4	34,087	6.29
1950	23.5	23.5	48,120	8.16
1955	52.1	18.8	72,884	11.24
1960	49.0	14.6	89,895	12.47
1965	46.4	12.1	105,278	12.98
1970	47.9	10.3	122,907	13.59
1975	58.0	8.85	137,437	13.67
1980	66.7	7.66	158,906	14.24
1985	59.1	6.20	125,576	10.27
1990	61.2	5.66	135,466	10.34
1995	61.7	4.79	122,512	8.74

Source: Steuerle and Bakija (1994, tables A.2, A.9, A.6, and A.7). Calculations assume a same-age couple with nonworking wife and husband earning the average wage with a continuous work history retiring at age 65. The transfer is in 1993 dollars, calculated using a 2 percent real interest rate.

viewed as likely occurrences; alternatively, it may be taken as evidence that revisions of the program were expected and that therefore there was no need to put in place any mechanism for automatic adjustment.[16]

Prior to the 1977 act, adjustments for real wage growth and inflation were made on an ad hoc basis and were indistinguishable in structure from changes in the real level of benefits. The formula for determining benefits remained based on average monthly wages (up to a maximum), unadjusted for changes in price level. Had the benefit formula remained unchanged, its progressivity would have resulted in falling replacement rates. Indeed, over the period 1939–50, in which the benefit formula remained static, this is exactly what happened. Between 1950 and 1975 there were 11 different benefit formulas.

Table 9.2 shows the replacement rate for newly retiring workers with average wages. The rise in the replacement rate reflected changes in benefits that intentionally went beyond adjustments for inflation. Changes in the benefit formula affected both new retirees and those who were already receiving benefits. In the context of rising wages, changes in the formula that kept the replacement rate for new retirees constant would at the same time raise real benefits for those already retired because of the progressivity of the benefit formula.

Under the 1977 act (taking effect in 1979), benefits were based on average

16. As some evidence for the former view, the CES wrote in a different context (specifically, arguing that shorter working lives due to strenuous industrial jobs were not accompanied by higher wages that would allow saving for retirement) that over the period 1890–1928, "when real rather than nominal earnings are analyzed, popular impressions of greatly increased earnings in this country during the last four decades prove to be based more upon fiction than upon fact" (CES 1935, 148). Nonetheless, this argument does acknowledge that nominal earnings had risen.

lifetime wages deflated by the average level of wages in the economy, and the benefit formula was frozen. Further, benefits for new retirees and for existing retirees were "decoupled." Benefits, once started, were thereafter held constant in real terms. The widow's benefit was increased from 75 percent of the primary worker's benefit under the 1939 act to 82.5 percent in 1961 and to 100 percent in 1972.

Several of the changes discussed above served to increase the size of the intergenerational transfer received by early cohorts of retirees as well as to increase the number of cohorts that received such transfers. The failure to enact tax increases in the early years of the program reduced lifetime contributions for early cohorts. Changes in the benefit formula (in particular, the moving forward in 1950 of the time at which the replacement rate would reach its steady state level) increased its generosity. And changes in life expectancy increased the actuarial value of the stream of annuity payments.

Examining the effects of each of these changes individually would be beyond the scope of this paper. As a measure of their combined effect, table 9.2 presents calculations from Steuerle and Bakija (1994). The table shows that the rate of return implicitly earned on social security contributions fell over time but did so much more slowly than had been scheduled under the 1939 act (shown in table 9.1). The cohort retiring in 1970, for example, received an average rate of return of 10.3 percent, compared with a rate of 7.0 percent planned in the 1939 act.[17] Although the rate of return fell monotonically, the same was not true of the size of the total transfer received (present value of benefits less present value of contributions). The cohorts retiring around the decade of the 1970s made larger "investments" (in the form of contributions) than those that came before them and earned higher rates of return than those that followed—the combination meant that these cohorts received the largest transfers, either in absolute terms or as a fraction of lifetime earnings.

Earnings Test

The earnings test is probably the area in which the original design of social security has been most significantly altered. Successive social security acts liberalized the test along multiple dimensions. Recipients aged 75 and over were exempted from earnings limits in 1950, and this limiting age was lowered to 72 in 1954 and 70 in 1970. The original "all or nothing" approach, under which a recipient lost his entire benefit for any month during which wages exceeded a cutoff, was replaced by a system in which benefits were reduced 1-for-1 with wages over an "annual exempt amount" in 1954. In 1972, the offset was lowered to 1-for-2 and under the 1983 act was lowered to 1-for-3

17. Boskin and Puffert (1988) conduct a similar analysis and conclude that the real rate of return on social security contributions for cohorts that reached age 65 before 1977 averaged 11.2 percent. The cohort retiring in 1978–87 received 5.7 percent; the 1988–97 cohort received 3.7 percent; and the 1998–2007 cohort will receive 2.75 percent. Subsequent cohorts will receive between 2.0 and 2.3 percent real returns, assuming no future changes in the program.

for recipients aged 65 and over. At the same time, annual exempt wages have risen as a fraction of the average wage: in 1935 the cutoff was equal to roughly 15 percent of average wages; in 1994 it was 34 percent for recipients below age 65 and 47 percent for those above. The annual exempt wage for recipients aged 65–69 is currently scheduled to rise from $11,160 in 1994 to $30,000 in 2002. A "delayed retirement credit" was introduced in 1972 (and subsequently expanded), which increases benefits to partially make up for delayed retirement and benefit reductions caused by the earnings test.[18] The only major reversal in this trend came with the 1983 act, which provided for the inclusion in gross income for income tax purposes of up to one-half of social security benefits for households with sufficiently high wealth or income (raised to 85 percent in 1993).[19]

Why was the earnings test so thoroughly weakened? Brown argues that "the lack of understanding of those who believe that they have some 'equity' in full benefits at 65, regardless of the purpose of the system, may have been a political factor in accelerating the liberalization of the earnings test" (1977, 12–13). What Brown interprets as a lack of understanding of the equity-adequacy trade-off might also have been a simple downweighting of adequacy as a consideration. Another possibility is that, with the end of the Great Depression, the motive of reducing unemployment by removing older workers from the labor force was less salient. As we discuss further below, a final reason for the weakening of the earnings test was a change in the environment in which social security functioned.

Overall Size of the Program

At first glance, one might be tempted to conclude that the most important change in social security has been its growth. Total OASI benefit payments were 0.33 percent of GDP in 1950, 2.8 percent of GDP in 1970, and 4.0 percent of GDP in 1990. Of course, much of this growth had been planned from the start. OAI had been designed gradually to replace OAA as covered workers retired. Table 9.3 shows that this is what happened. (OAA was replaced by a purely federal program, supplemental security income [SSI], in 1974.) Similarly, the extension of coverage to additional workers had been planned from the outset. Nevertheless, many of the legislative changes discussed above served to expand the program's scope.

Is social security much larger than it was originally designed to be? Different measures would seem to tell different stories. The fraction of the average worker's preretirement income replaced by social security is today almost exactly the level designed in the 1939 program. But the payroll tax rate, originally

18. For a more detailed discussion, see Myers (1993, 270–78).

19. The additional tax revenue generated was transferred back to the social security trust fund. Since the thresholds for inclusion in taxable income were not indexed, the fraction of beneficiaries would grow over time. The value of these receipts was 1.2 percent of total benefits in 1984 and 1.5 percent of total benefits in 1991 (HHS 1992, tables 4.A3 and 4.A4; Myers 1993, 278–79; Steuerle and Bakija 1994, 217–29).

Table 9.3 Percentage of the Population Aged 65 and Over Receiving Benefits

Year	OASI	OAA/SSI	Both OAA/SSI and OASI
1940	.7	21.7	.1
1945	6.2	19.4	.5
1950	16.4	22.4	2.2
1955	39.4	17.9	3.4
1960	61.6	14.1	4.1
1965	75.2	11.7	5.2
1970	85.5	10.4	6.3
1975	90.4	11.1	7.8
1980	91.4	8.7	6.1
1985	91.7	7.1	5.1
1990	92.4	6.6	4.6

Source: HHS (1992, table 3C5).

scheduled to rise to 6 percent, is now 11.2 percent.[20] If one uses benefits as a measure, OASI is as large as it was scheduled to be. If one uses tax rates, it is twice its intended size.

The key to reconciling these two measures is to recall that under the original plan, interest on a large trust fund was to supplement contributions. Since the trust fund was never accumulated, taxes today are higher than initially planned, while benefits are not. As we showed above, the original plan called for benefits to be in the neighborhood of 10 percent of payrolls. Since both replacement rates and the ratio of workers to beneficiaries are roughly at their forecast levels, it should be the case that the size of benefits relative to total payrolls is also at the level that would have been expected.[21] In fact, benefits in 1994 were 10.7 percent of taxable payrolls (contributions were higher since the program is belatedly building up a trust fund).

Does this mean that benefits are a better measure of the program's size than tax collections? We think that the answer is yes, for a reason that has been stressed most forcefully by Kotlikoff (1986): the collection of a "trust fund" is largely an accounting exercise. Social security's trust fund has never been invested in anything other than debt of the federal government. Thus, had the system built up a large trust fund on which it was earning interest, current OASI contributions would be lower, but the government would have an additional large item for "interest on the social security trust fund" in its spending. And this interest would have to be funded out of other tax revenue. From the point of view of flows of money between the government and the public, a policy in which social security builds up a trust fund holding government debt

20. In addition to OASI, payroll taxes are also collected for disability insurance, with a current tax rate of 1.2 percent, and hospital insurance (one of the two parts of Medicare), with a current tax rate of 2.9 percent.

21. There are a number of other effects, only some of them offsetting, that are ignored in this rough statement.

is the same as a policy in which social security taxes are initially lower, and in which the rest of the government runs a smaller deficit.[22]

Thus, an observer from 1939 would not be surprised at the size of social security today, although the path by which the current state was reached was not that which had been planned initially.

9.3.2 Changes in the Economic Environment

Demographic Changes

One of the factors that has led to recent problems in social security is the changing ratio of elderly recipients to young contributors. That demographic change would be a problem was recognized from the beginning. The actuaries of the CES estimated that the fraction of the population aged 65 and over would rise from 5.4 percent in 1930 to 9.3 percent in 1960 and 12.6 percent in 1990. The figure for 1960 turned out to be too high by 0.1 percent, and that for 1990 too high by 0.4 percent.[23]

This accuracy in forecasting the percentage of the population that would be elderly conceals two offsetting errors. The CES assumed no change in mortality, although it noted the possibility of a mortality decrease. Indeed, Ransom and Sutch (1986, 1988) argue that changes in life expectancy for men over age 60 were insignificant in the six decades prior to the creation of social security, so such an assumption might not have been unwarranted. Compensating for this error, the CES's assumptions for the birthrate and immigration were far too low. Their estimate for total population in 1990 was 151 million, compared with an actual population of 258 million.

The change in the relative size of the elderly and working-age populations has mostly been due to declines in the birthrate. At the same time, changes in longevity have meant that any given benefit structure will produce a larger transfer to each elderly person. Women's life expectancy at age 60, which had risen by 1 year between 1900 and 1930 (when it was age 76), rose by 3.6 years between 1930 and 1960, and by 2.9 years between 1960 and 1988. The increase for men was similar (Faber 1982; HHS 1992). For a transfer program financed on a pay-as-you-go basis, all that is relevant in determining the tax rate is the ratio of workers to beneficiaries. For a funded system, changes in life expectancy are also important. Thus, the move away from accumulating a trust fund meant that no adjustment had to be made for changes in longevity that were matched by higher-than-expected birthrates.

22. This point was recognized in the early debates over social security financing. Edwin Witte stressed that building up a trust fund, even if the government did so simply by borrowing money from itself, was a matter of "honest bookkeeping." Similarly, Arthur Altmeyer, in the debates about raising OASI taxes during the war, argued for building up a trust fund as a way of making concrete the promise to pay future benefits. See Parker (1942, chap. 21) and Derthick (1979, chap. 11).

23. CES (1935, table 13, p. 24; CES 1937, 139–41). The ACSS quotes a more extreme estimate by the National Resources Committee that by 1980, 14–16 percent of the population would be aged 65 and over (ACSS [1938] 1977, 15).

Changes in the Nature of Retirement

As discussed above, there is disagreement over how the prevalence of retirement changed in the years before the creation of social security. But in the years since, the change has been dramatic. The labor force participation rate for men aged 65 and over fell from 58 percent in 1930 to 15.6 percent in 1993. Although some of this decrease was due to changes in life expectancy, age-specific participation rates have fallen steeply as well (Costa 1996; Lumsdaine and Wise 1994). At the same time, more people lived to reach retirement. Using cross-sectional life tables, the probability that a 40-year-old man would live to age 65 rose from .61 to .80 between 1930 and 1990.

Although labor force participation declined, the economic status of the elderly improved. Private pensions expanded in the period after World War II. In 1984, 39 percent of people aged 65 and over were collecting pension benefits from some source (Lumsdaine and Wise 1994). The poverty rate among people aged 65 and over was 12.2 percent in 1993, compared with 15.1 percent for the population as a whole. In 1970, the poverty rate among the elderly had been 24.6 percent (U.S. Bureau of the Census 1995, tables 747 and 748). The increased affluence and independence of the elderly was reflected in changes in living arrangements. The probability of a retired man aged 65 or over being a household head rose from less than 65 percent in 1930 to roughly 90 percent in 1990 (Costa 1996).

Prior to the depression, retired workers were, to a large extent, physically unable to work. In subsequent decades, the link between retirement and disability was greatly weakened. In 1941, 3 percent of men who began receiving social security at age 65 said that they had retired because they preferred leisure to work. By 1982, the figure had risen to 48 percent (Costa 1996, chap. 7). Costa shows that the age-specific prevalence of degenerative disease among the elderly has fallen significantly and that health has become less important to the labor force decisions of the elderly over the course of the twentieth century. Retirement has become a time of vigor and recreation.

Together, these shifts constituted a change in the very nature of retirement. Retirement was no longer an unusual state, comparable to illness, into which some unlucky people would fall. It became an expected part of life. How much of this change is itself due to social security is a matter of debate (see Costa 1996; Lumsdaine and Wise 1994). But the change also had implications on what social security could or should do.

The original conception of social security had been as a form of *insurance* against income loss due to age and infirmity. The designers of the system repeatedly stressed that it was a form of "social insurance." The very name "social security" emphasized the unpredictability of the needs to be addressed. But the essence of insurance is that not everyone experiences a claim on it. Over time, retirement went from being unusual to being the norm.

The area in which the change in the nature of retirement is most closely

reflected is in the earnings test. J. Douglas Brown, who chaired the ACSS, stated the original argument for the earnings test: "The reason for the earnings test is . . . to assure that the protection afforded by the OASDI system is keyed to an adequate protection against hardship so far as the funds of the system permit. Where normal earnings continue, even if the potential beneficiary is otherwise eligible, the assumption is that no benefits are required for adequate protection" (Brown 1977, 12–13). With retirement a normal part of life, the adequacy view of social insurance, under which an earnings test made sense, was no longer appropriate. The change in the environment brought equity considerations to the fore.

9.4 Conclusion

Although social security has grown enormously since it was created, this growth represents, for the most part, the unfolding of the program's original design. Since OASI paid benefits only to retired workers with a history of contributions, it was inevitable that benefit payments would grow slowly. And although coverage in the program was extended until almost all workers were covered, this was consistent with the plans of the program's creators.

Of the rise in the payroll tax rate from 2 percent in 1937 to 11.2 percent today, part represents an increase that had been scheduled from the plan's creation, and much of the rest reflects the failure of the program to build up an initially scheduled trust fund. The benefit replacement rate for retiring workers today is almost exactly what had been planned, as is the ratio of benefits to payrolls.

Thus, our most important conclusion is that, in a mechanical sense, there has been a surprising degree of continuity in social security since the end of the Great Depression. But this conclusion applies only to the mechanical functioning of the program itself and not to the role that it plays in the economy. Although social security developed along the lines that had originally been laid out during the Great Depression, the world changed around it. Most important, retirement went from being unusual to being commonplace. The framers of social security had stressed that the program was a form of social insurance against the hazard of lost wages in old age. The retirement that they pictured was a hazard precisely because it was unusual at the time: many workers never lived to age 65, and many who did kept working. But in the ensuing six decades, a long, healthy period of retirement has become commonplace. That the program could continue to operate as planned while the world around it changed is in large part attributable to luck. Unforeseen changes in life expectancy, fertility, immigration, women's labor force participation, retirement ages, inflation, and real wage growth happened to crudely offset each other. While parts of social security, particularly the earnings test, were adjusted to suit changing conditions, the overall structure of the program was not. What had started as an insurance program, which gave money to people in the unlikely events that they reached old age and were unable to work, instead be-

came a transfer program of which most people could expect to be recipients at some point. Current proposals to reform the program—for example, to replace it with the equivalent of individual retirement accounts—reflect this change in environment (see, e.g., Feldstein 1996).

Regarding the lasting impact of the Great Depression, our conclusion is that there was surprisingly little. OASI seems to have been shaped more by existing precedents and by political considerations than by the specific conditions of the depression. And OAA, which was a response to the immediate crisis of the depression, has faded in importance as an old-age program. Of course, absent the depression OASI might not have been created at all, but we have not tried to address this issue.

References

Advisory Council on Social Security (ACSS). (1938) 1977. Final report of the Advisory Council on Social Security. In *Essays on social security,* by J. Douglas Brown. Princeton, N.J.: Princeton University, Industrial Relations Section.

Ball, Robert M. 1988. The original understanding on social security: Implications for later developments. In *Social security: Beyond the rhetoric of crisis,* ed. Theodore R. Marmor and Jerry L. Mashaw, 17–39. Princeton, N.J.: Princeton University Press.

Boskin, M., and D. Puffert. 1988. The financial impact of social security by cohort under alternative financing assumptions. In *Issues in contemporary retirement,* ed. Rita Ricardo-Campbell and Edward Lazear, 207–42. Stanford, Calif.: Hoover Institution Press.

Brown, J. Douglas. 1969. *The genesis of social security in America.* Princeton, N.J.: Princeton University, Industrial Relations Section.

———. 1977. *Essays on social security.* Princeton, N.J.: Princeton University, Industrial Relations Section.

Carter, Susan B., and Richard Sutch. 1996. Myth of the industrial scrap heap: A revisionist view of turn-of-the-century American retirement. *Journal of Economic History* 56 (1): 5–38.

Cates, Jerry R. 1983. *Insuring inequality: Administrative leadership in social security, 1935–54.* Ann Arbor: University of Michigan Press.

Committee on Economic Security (CES). 1935. *Report to the president of the Committee on Economic Security.* Washington, D.C.: Government Printing Office.

———. 1937. *Social security in America: The factual background as summarized from staff reports to the Committee on Economic Security.* Washington, D.C.: Social Security Board.

Costa, Dora. 1996. The evolution of American retirement: 1880–1990. Cambridge, Mass.: Massachusetts Institute of Technology, Department of Economics. Manuscript.

Derthick, Martha. 1979. *Policymaking for social security.* Washington, D.C.: Brookings Institution.

Eliot, Thomas H. 1961. The legal background of the social security act. Speech. Available at http://gopher.ssa.gov/history/eliot2.html.

Faber, J. F. 1982. *Life tables for the United States, 1900–2050.* Washington, D.C.: U.S. Social Security Administration, Office of the Actuary.

Feldstein, Martin. 1996. The missing piece in policy analysis: Social security reform. *American Economic Review* 86 (2): 1–14.

Graebner, William. 1980. *A history of retirement: The meaning and function of an American institution, 1885–1978.* New Haven, Conn.: Yale University Press.

Gratton, Brian. 1996. The poverty of impoverishment theory: The economic well-being of the elderly, 1890–1950. *Journal of Economic History* 56 (1): 39–61.

Haber, Carole, and Brian Gratton. 1994. *Old age and the search for security.* Bloomington: Indiana University Press.

Kotlikoff, Laurence. 1986. Deficit delusion. *Public Interest* 84: 53–65.

Leff, Mark. 1988. Speculating on social security futures: The perils of payroll tax financing 1939–59. In *Social security: The first half century,* ed. Gerald D. Nash, Noel H. Pugach, and Richard F. Tomasson. Albuquerque: University of New Mexico Press.

Lubove, Roy. 1968. *The struggle for social security.* Cambridge, Mass.: Harvard University Press.

Lumsdaine, Robin, and David Wise. 1994. Aging and labor force participation: A review of trends and explanations. In *Aging in the United States and Japan: Economic trends,* ed. Yukio Noguchi and David A. Wise, 7–42. Chicago: University of Chicago Press.

Moen, Jon R. 1994. Rural nonfarm households: Leaving the farm and the retirement of older men, 1860–1980. *Social Science History* 18 (1): 55–75.

Myers, Robert J. 1993. *Social security,* 4th ed. Philadelphia: University of Pennsylvania Press.

Parker, J. S. 1942. *Social security reserves.* Washington, D.C.: American Council of Public Affairs.

Ransom, Roger, and Richard Sutch. 1986. The labor of older Americans: Retirement of men on and off the job, 1870–1937. *Journal of Economic History* 46 (1): 1–30.

———. 1988. The decline of retirement in the years before social security: U.S. retirement patters, 1870–1940. In *Issues in contemporary retirement,* ed. Rita Ricardo-Campbell and Edward P. Lazear, 3–26. Stanford, Calif.: Stanford University Press.

Romer, Paul. 1995. Preferences, promises, and the politics of entitlement. In *Individual and social responsibility: Child care, education, medical care, and long-term care in America,* ed. Victor R. Fuchs. Chicago: University of Chicago Press.

Schlesinger, Arthur M., Jr. 1958. *The coming of the New Deal.* Boston: Houghton Mifflin.

Steuerle, C. Eugene, and Jon M. Bakija. 1994. *Retooling social security for the 21st century: Right and wrong approaches to reform.* Washington, D.C.: Urban Institute Press.

U.S. Bureau of the Census. 1995. *Statistical abstract of the United States: 1995,* 115th ed. Washington, D.C.: Government Printing Office.

U.S. Department of Health and Human Services (HHS). Social Security Administration. 1992, 1994a, 1995. *Annual statistical supplement to the Social Security Bulletin.* Washington, D.C.: Government Printing Office.

———. 1994b. *Fast facts and figures about social security.* Washington, D.C.: Government Printing Office.

Weaver, Carolyn L. 1987. Support of the elderly before the depression: Individual and collective arrangements. *Cato Journal* 7 (2): 503–25.

Willcox, Alanson. 1938. Basic policies under Social Security Act: Argument against system analyzed. *The Annalist,* 31 August.

Zevin, B. D., ed. 1947. *Nothing to fear: The selected addresses of Franklin Delano Roosevelt 1932–45.* London: Hodder and Stoughton.

Zinn, Howard, ed. 1966. *New Deal thought.* New York: Bobbs-Merrill.