Analysis of Nonparticipation in the SSI Program

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This article addresses a range of questions about participation and nonparticipation in the supplemental security income (SSI) program with data collected by the Survey of Low-Income Aged and Disabled (SLIAD) during 1973 and 1974: (1) Can SSI's relatively modest growth be attributed to initial overestimates of the eligible population or to low rates of participation among eligibles? (2) If the latter, what factors inhibited program participation? (3) What is the relation between program participation in SSI's initial years and at the present time? (4) If the factors that initially inhibited participation have not significantly changed, what are the present implications for program policy?

The first section of this article discusses the size and composition of the program's target population. Various estimates of the eligible SSI population are compared with micro-simulation estimates based on SLIAD. The second section presents the theoretical and empirical framework used to analyze the factors associated with nonparticipation in SSI. The theory of nonparticipation, developed in the context of the "alternative income hypothesis," is presented in a series of propositions used to empirically verify the theory. The third section discusses the factors related to participation in the SSI program during and after the phase-in period. Subsequent response to SSI is presented in a discussion of outreach efforts and trends in program applications and program enrollments. The final section discusses the implications of the existence of an eligible nonparticipant population and what, if any, changes could be made to increase program involvement.

In January 1974, the Federal Government implemented the supplemental security income (SSI) program. It replaced three separate welfare programs administered by State and local governments: Old Age Assistance (OAA), Aid to the Permanently and Totally Disabled (APTD), and Aid to the Blind (AB). Before SSI, these welfare systems operated at the States' discretion through Federal subvention. The States enjoyed considerable latitude in determining categorical eligibility and administrative procedures. Each State

applied its own definitions of blindness and disability and devised its own methods for measuring income and computing benefit levels.

The introduction of SSI altered the structure of adult assistance in the United States. Program guidelines, categorical definitions of eligibility, and methods of income measurement were uniformly established at the Federal level. Featuring a more generous payment structure, the new system was intended to serve many low-income aged and disabled persons who were not receiving aid under OAA, AB, or APTD and to provide expanded support for individuals transferred from these programs. The operation of the program under the aegis of the Social Security Administration (SSA), rather than local welfare offices, was also expected to

help eradicate the stigma of public dependency often associated with earlier assistance programs. In short, a much larger number of SSI recipients relative to the State-administered programs was expected because more persons would become eligible and higher participation rates among eligibles were anticipated.

The SSI program accomplished many of its goals. Data collected in the Survey of Low-Income Aged and Disabled (SLIAD) shows that the SSI program resulted in a substantial income increase for many recipients who were transferred from State and local welfare programs and that the largest gains occurred among the poorest of transferred recipients.[1] Other survey findings revealed a significant decline in the stigma associated with receiving public aid among recipients who were transferred to the SSI program, and a generally positive reaction toward SSI's administrative efficiency and its treatment of clients.[2] From the point of view of persons who had relied on State and local welfare in the past, SSI was clearly an improvement.

The new SSI program, however, did not enroll as many new recipients as had been predicted. As noted in a preliminary analysis of the implementation of SSI, enrollment was 2–3 million persons less than anticipated. Either the program was only marginally more effective than the State-managed programs in attracting new recipients or there were not many persons who could qualify for SSI who were overlooked by the earlier programs.[3]

Estimation of Eligible Population

Throughout 1973, the Social Security Administration attempted to estimate the number of persons that would enter the SSI rolls as a result of more liberal eligibility criteria, special casefinding or outreach efforts, and destigmatization. The exact size of the eligible population was, however, difficult to forecast for several reasons. Lack of data concerning both the new eligibility criteria and the financial resources of the target population made the determination of eligibility status tenuous. Program guidelines pertaining to optional State supplementation were not final and this complicated the estimation process. Finally, so few applications were received during the initial phase-in period that application and denial rates could only be approximated.

The initial estimates showed a dramatic increase in the number of aged and disabled recipients under SSI. In August 1973, projections of the 1974 SSI caseload estimated that the total number of recipients would more than double the size of existing State program caseloads to about 3.8 million recipients by the end of the fiscal year. These projections were based on the assumption of a 45-percent participation rate among the newly eligible population by January 1974, and a 74-percent enrollment by the end of the fiscal year. In 1975, the majority of applications were expected to be replacement cases.

In December 1973, the initial estimates of new applicants were revised downward to 2.5 million to correspond with the limited response to the new program. The estimated number of new aged applicants was reduced by more than 45 percent while the projected number of disabled recipients was slightly increased. It soon became clear that even the revised estimates exceeded the number of persons who actually enrolled.[4] Only 757,000 new cases were received during the fiscal year. Were the estimates too high or did SSI fail to attract a substantial portion of the eligible population? In an attempt to answer this question, a simulation of SSI eligibility was developed using information gathered on the potentially eligible population from the Survey of Low-Income Aged and Disabled.

SLIAD

In 1973 and 1974, the Social Security Administration conducted the Survey of Low-Income Aged and Disabled to assess the impact of SSI on its target population.[5] Two subsamples were constructed to be nationally representative of the noninstitutionalized low-income aged and disabled populations. To capture all potential eligibles, the income parameters were set above program guidelines. The financial criteria for inclusion in these samples was an annual income in the previous 12 months of not more than $5,000 for a single person or $6,500 for a married couple. One could argue that individuals included in the sample are not impoverished. These income limits were chosen to guarantee almost universal coverage of the population at risk as far as the SSI program was concerned. The aged sample consisted of persons aged 65 and older in July 1973, and the disabled sample included only persons aged 18-64 who, because of poor health, had been

[1] Sylvester J. Schieber, "First Year Impact of SSI on the Economic Status of the 1973 Adult Assistance Population" (SLIAD Report No. 2), Social Security Bulletin, February 1978, pages 18–46.

[2] Thomas Tissue, "Response to Recipiency Under Public Assistance and SSI" (SLIAD Report No. 6), Social Security Bulletin, November 1978, pages 3–15.

[3] Thomas Tissue, "The Survey of Low-Income Aged and Disabled: An Introduction" (SLIAD Report No. 1), Social Security Bulletin, February 1977, page 8.

[4] The assumption was made that everyone applying for SSI would complete the application process. A number of informal denials during the first year, however, contributed to the large discrepancy between program statistics and projected caseloads.

[5] For a complete discussion of the survey's purpose and design, see Thomas Tissue, "The Survey of the Low-Income Aged and Disabled: An Introduction" (SLIAD Report No. 1), Social Security Bulletin, February 1977, pages 3–11, and Erma Barron, Survey Design, Estimation Procedures, and Sampling Variability (SLIAD Report No. 5), September 1978.

unable to work regularly for the preceding 3 months. In late 1973, interviews of 3,402 aged persons and 2,790 disabled individuals were conducted and weighted to provide a representative sample of the low-income aged (15.4 million) and disabled (4.7 million) populations. By 1974, death, institutionalization, or relocation had reduced the aged sample by 11 percent and the disabled sample by 8 percent. No sampling adjustment was made for this attrition. The 1973 respondents were included in the 1974 followup interviews despite any changes in their financial or disability status.

Several aspects of the survey made it a uniquely valuable data source for this study. First, the sample population was composed of individuals specifically designated as potential SSI recipients. Second, the two-stage survey design lent itself to a longitudinal assessment of SSI participation. Antecedent influences might be identified from 1973 data and used to discriminate between eligible participants and nonparticipants in the following year. This before and after design allowed the adoption of a cause and effect approach. Third, it was possible to match and supplement the survey data with data elements drawn from the Social Security Administration's supplemental security record (SSR), summary earnings record (SER), and master beneficiary record (MBR). Exogenous data were also matched from the Census Bureau's County and City Data Book tape. This comprehensive array of information made possible, for the first time, an estimation of SSI eligibility based on Federal and State specific program criteria. Previous estimates had been based on limited socioeconomic data and selected Federal eligibility criteria. The supplemented SLIAD data set now permitted the determination of eligibility incorporating all Federal and State specific program requirements.

Simulation of Eligibility

Eligibility for SSI in 1974 was determined for all SLIAD respondents who completed both interviews.[6] The model for simulating individual eligibility was a modified version of the Generalized Unbiased Estimator of Supplemental Security (GUESS) developed for basic SSI program projections. The technique produces

an estimate of eligibility status for each individual and the amount of the potential payment. The revised model is exhaustive in that it classifies each case in terms of categorical and financial eligibility for Federal payments as well as State supplementary payments.[7] As for the accuracy of the simulation procedure, SLIAD-based eligibility determinations were compared with administrative records of survey participants. Less than 1 percent of the individuals classified as ineligible by the SLIAD simulation procedure were in fact receiving an SSI payment in 1974.

Table 1 provides a summary of the simulation results from SLIAD and compares these estimates with (a) pre-program estimates that SSA developed in 1973, (b) eligibility and participation estimates derived from the 1974 Current Population Survey (CPS) by Dorothy Projector and Ellen Murray,[8] and (c) summary statistics produced from the SSI program's operating records in 1974.

Table 1.—Number of SSI eligibles and participant population, by type of estimate

[In thousands]

Population	Pre-program estimates, December 1973	Projector-Murray model	SSI program statistics	SLIAD model
	Aged			
Number:				
Eligible	3,800	3,986	....	3,767
Transferred	1,750	....	....	1,442
Nontransferred	2,050	....	....	2,325
Participants	3,400	1,499	2,152	2,076
Transferred	1,750	....	1,515	1,385
Nontransferred	1,650	....	637	691
Nonparticipants	400	2,487	....	1,691
	Disabled			
Number:				
Eligible	1,700	1,451	....	2,421
Transferred	1,190	....	....	1,008
Nontransferred	510	....	....	1,423
Participants	1,530	706	1,326	1,310
Transferred	1,190	....	961	968
Nontransferred	340	....	365	342
Nonparticipants	170	745	....	1,121

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[6] The SLIAD sample design presented the possibility of truncation and selectivity bias. The amount and direction of the distortion introduced by the truncated nature of the sample cannot be unambiguously determined, although one suspects that it would bias estimated coefficients toward zero. The fact that sample screens were more general than the actual SSI regulations results in a sample composed not only of the potential SSI target population but also of individuals whose income and assets would disqualify them from any means-tested program. Moreover, comparisons of estimated coefficients based on differing screening values did not generate statistically discernible differences.

[7] The model takes each case and determines categorical eligibility using age, disability, and living arrangement criteria of the SSI program. Financial resources are then subjected to the assets test and a determination of countable income in relation to various income disregards is calculated. Based on these eligibility criteria, the Federal payment is calculated. State supplementation of the payment is then calculated for the appropriate States.

Missing data not obtained from SSA records were imputed by means of a sequential allocation process. A two-dimensional matrix comprised of 64 individual characteristics and the appropriate missing item was used to derive a replacement value based on data drawn from individuals with similar characteristics.

[8] For a more detailed discussion of the estimation and modeling procedures used to determine eligibility and participation, see Dorothy S. Projector and Ellen G. Murray, "Eligibility for Welfare and Participation Rates, 1970," **Studies in Income Distribution** (Report No. 7), July 1978.

The SLIAD's estimate of aged eligibles is similar to both the pre-program estimates and the Projector-Murray results. All three conclude that between 3.7 and 4.0 million aged persons could have claimed SSI payments in 1974. The three approaches differ markedly, however, in their estimates of the number that actually would or did accept SSI. Based on the assumption that SSI would be widely advertised and stigma free, pre-program estimates presumed a very high participation rate (90 percent of eligibles) that would produce 3.4 million aged recipients in 1974. At the other extreme, the Projector-Murray analysis of 1974 data concludes that only 1.5 million older persons actually received SSI during the year. The SLIAD sample estimate of 2.1 million aged participants is virtually identical to the SSI administrative statistics for the same year. The SLIAD simulation produced a very close fit to program totals for aged recipients as a whole, as well as the numbers of transfers and nontransfers on the rolls in 1974.

The SLIAD produced a higher estimate of disabled eligibles than did either the pre-program estimates or the Projector-Murray analysis. The survey provided more complete information about health, functional capacity, and work history than was available in the CPS data sets that sustained the other estimates. With respect to the estimates of disabled participants, SLIAD (1.3 million) and the pre-program estimates (1.5 million) are both similar to the program's official statistics (1.3 million). Again, the Projector-Murray results (0.7 million) are far smaller than those derived from the other two models or the official statistical summaries themselves.

Eligibility and Participation Rates

Determination of eligibility status provided two parameters germane to this analysis of the SSI program in 1974. First, it established the size of the population that met program eligibility standards. Second, it enabled the calculation of the proportion of eligible SSI participants and thus the program's basic participation rate could be determined. Stratifying the sample on these parameters focuses the analysis on persons who actually met program requirements.

Table 2 presents a breakdown of SLIAD's 1974 estimates of eligibility and participation. From the total low-income aged population, 3.8 million persons were eligible for payments and 2.1 million persons actually received them. Of the total disabled population, 2.4 million persons were eligible and 1.3 million persons were program participants. The overall participation rates for the aged and disabled, 55 percent and 54 percent, respectively, are based on the enrollment and participation of two distinct groups of eligibles in 1974. Basic SSI participation rates reflect the presence of large

Table 2.—Estimates of SSI population by eligibility, participation, and prior welfare status, 1974

[Number in thousands]

Population	Total	Participating	Participation rate
Aged			
Total	14,398	....	....
Ineligible	10,631	....	....
Eligible	3,767	2,076	55.0
Nontransferred[1]	2,325	691	29.7
Disabled			
Total	4,482	....	....
Ineligible	2,051	....	....
Eligible	2,431	1,310	53.9
Nontransferred[1]	1,423	342	24.0

[1] Estimates adjusted to account for the undercount of transfer, institutionalized, blind and disabled children, and persons receiving domiciliary care.

numbers of transferred welfare cases. Automatic transfers from the old State-managed public assistance programs accounted for two-thirds of the aged and nearly three-fourths of the disability cases at the end of SSI's first year of operation. Although it appears that the existing welfare caseloads were shifted promptly and efficiently to the SSI rolls in January, the new program was not very successful in attracting other aged and disabled recipients during the year. Less than one-third of the combined SSI caseload consisted of new (nontransferred) recipients in late 1974.

It seems clear that SSI's failure to achieve its predicted growth cannot be attributed to initial overestimation of the eligible population.[9] The SLIAD simulation confirms the pre-program estimates regarding the existence of a large number of SSI eligibles who had not appeared on the State welfare rolls. The program failed to grow as anticipated because it attracted only a small proportion—30 percent of the aged, 24 percent of the disabled—of the nontransferred population that qualified for payments.

This article now examines the factors that encouraged or impeded participation among nontransferred SSI eligibles in 1974. Participation of transferred recipients is not discussed because their enrollment in SSI resulted from the administrative exchange of records from one program to another. The question that matters is why

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[9] Recent research has shown, however, that the implementation of SSI expanded eligibility and participation in comparison with projected trends in the assistance programs that the SSI program replaced. See Sylvester J. Schieber, **The Dynamics of the Adult Assistance Caseload and the Impact of the Supplemental Security Income Program,** paper presented at the Eastern Economic Association Meetings, Washington, D.C., April 28, 1978. Schieber's aggregate analysis of the impact of SSI on the dynamics of adult assistance caseload levels also found that shifts in specific State program regulations induced changes in caseload levels for the elderly. Growth in average payment levels and the elimination of relative responsibility provisions induced changes in the disability caseloads.

did the SSI program do so poorly in enrolling new participants?

Factors Associated With Nonparticipation

Participation in the supplemental security income program was analyzed in the context of the "alternative income" hypothesis.[10] This hypothesis is based on the theory of consumer choice and on standard labor supply theory. Participation is presented as a function of the impact of cash payments, income guarantees, and tax rates on work and nonwork activities. Participants in income transfer programs receive a guarantee based on their financial resources. This increases the participants' income and affords them the opportunity to work less. Assuming an individual prefers leisure to work, increases in income (guarantees) will have an income effect that results in decreased labor market work. The larger the guarantee, the greater the work reduction.

The impact of taxes reinforces the income effect. The tax rate is the percentage by which payments are reduced as earnings or other income increase. A positive tax rate in an income security program such as SSI reduces the reward for working an additional hour. A reduction in the expected return from work results in a decrease in labor market work. This substitution effect, in conjunction with the income effect, both encourages reductions in labor supply and induces participation in transfer programs.

The incentives for the potential SSI population to curtail work and participate in the program appear obvious. The incentives include a guaranteed level of income and material well-being, cash supplements to the individual's financial resources, and a reduction in the costs associated with nonwork activities. The im-

pact of subjective as well as objective costs associated with program participation, however, could reduce the expected benefits to a lower level. Unless the subjective costs of participation were high enough to offset the gain in income, individuals would in fact participate. The proposed hypothesis, therefore, relates the determinants of individual choice behavior to the demand for public assistance.

The SSI eligibility criteria are such that the majority of SSI recipients are incapable of engaging in full-time labor market activities. The eligible aged population is universally over age 65. The blind must meet very strict standards. To be considered disabled a person must be unable to engage in any substantial gainful activity by reason of physical or mental impairment expected to result in death or to last for at least a year. Disabled persons must be unable to do their previous work and, after considering age, education, and work experience, must be unable to engage in any other kind of substantial gainful work existing in the national economy. For these individuals, the labor-leisure dichotomy is restricted to the use of time in non-income-generating, nonwork activities.

Participation in the SSI program thus becomes a tradeoff between the benefits of program involvement and the costs associated with a reallocation of resources expended in nonwork activities. The benefits are a guaranteed income and a minimum level of material well-being. The costs are the stigma associated with receipt of public assistance, the possible loss of family or external support due to program restrictions, loss of time and income expended in program certification and involvement, and, perhaps most important, informational costs. The costs of information about the program's intent and requirements may be prohibitive for the potential participant because of restricted health, income, and contact with public or private information sources. If there is a net positive differential between the program's benefits and the objective and subjective costs associated with participation, then nonworking individuals would participate.

[10] Two supply-side hypotheses are the "employment opportunity" and "institutional" theories of public assistance dynamics. The employment opportunity hypothesis is oriented toward the structure of labor markets. The institutional hypothesis focuses on the availability of welfare slots. The employment opportunity hypothesis perceives very high involuntary unemployment that is not randomly distributed across the working age population. Therefore, labor supply decisions cannot be the determining factor for participation in the welfare transfer process for many people if they cannot find jobs when they are willing to work. This line of reasoning is frequently coupled with theories of segmented labor markets.

The institutional hypothesis perceives welfare as a supply, not a demand, phenomenon. Instead of persons getting welfare if they cannot or do not work, the welfare system is perceived as allocating a given number of slots among applicants. This can be done legislatively by varying payment maximums or altering disregards and implicit tax rates. Administratively the same thing can be accomplished by manipulating acceptance and closure rates. Proponents of this philosophy frequently perceive this manipulation of the welfare system as a form of social engineering whose aim is to maximize the efficiency of the general economic system. See Barry Bluestone and James Sumrall, **Public Assistance Dynamics: Testing Alternative Theories of AFDC Growth,** paper presented at Eastern Economic Association Meetings, Hartford, Connecticut, April 15, 1977, page 3.

Estimation Technique

The question of SSI program involvement necessitated the use of an estimation technique that could relate the probability that an individual would take a particular action in a binary choice situation, that is, participate or not participate. The use of a logit maximum likelihood procedure enables one to obtain consistent and efficient estimates of such a binary choice by calculating the probability of an action based on the characteristics corresponding to that individual. In this framework, the purpose is to analyze the underlying probability of a given choice—more specifically, how a series of exogenous variables influences the underlying

probabilities.[11] This procedure estimates the likelihood of observing the pattern of nonparticipation expressed as the product of the probabilities of the individual observed outcome. Given the probability of nonparticipation, $P = e^{XB}/1 + e^{XB}$, and the probability of participation, $(1-P = 1/1 + e^X t^B)$, the likelihood function $L(B)$ can be written as: $L(B) = t\overset{\pi}{\Sigma}d_1 \ (e^X t^B/1 + e^X t^B) \ t\overset{\pi}{\Sigma}d_2$ $(1/1 + e^X t^B)$, where X_t is a row vector of independent variables, B is a column vector of coefficients, d_1 is the set of all observations such that $P = 1$ and d_2 is the set of all observations such that $P = 0$ is observed. The parameter estimates obtained by maximizing the likelihood function express the change in the probability of nonparticipation associated with a unit change in an exogenous variable.[12] If an estimated coefficient is positive (negative) then the probability of nonparticipation increases (decreases) if that variable increases while the other variables are held constant. The interpretation of these estimated coefficients differ from linear probability or regression coefficients in that in the logit model the coefficient is the change in the log of the odds, the shift in the likelihood of choosing a particular course of action, that is, nonparticipation (not the marginal change in the probability) associated with a unit change in the explanatory variable.

The basic research design is dictated by the chronology of survey and program events. The initial, pre-SSI interviews were conducted during the last 10 weeks of 1973. These data reflect the preferences, characteristics, and circumstances of the potential recipient population before the SSI program's implementation on January 1, 1974. Subsequently, survey respondents had approximately 11 months to apply and enroll in the new program. During the last months of 1974, followup interviews were conducted to determine individual eligibility for and actual participation in SSI at the end of the program's first year of operation.

The analysis of nonparticipation follows the usual conventions regarding the temporal sequences of variables. Independent variables must precede the event or occurrence to be explained. Thus, the study's explanatory variables are drawn from the 1973 observations collected immediately before SSI's availability. Participation and nonparticipation were determined after the fact, by reference to SLIAD's 1974 followup interview. Adherence to this basic strategy prevents one from confusing the antecedents of participation with the independent effects of participation itself.[13]

The choice of the explanatory variables used in the analysis was based on a series of propositions purported to explain nonparticipation. These propositions reflect previous research findings and assumptions concerning participation. Nine major concept areas were used to classify the explanatory variables: Health, quality of life, mobility, sociodemographic characteristics, economic status, stigma, communications, social networks, and county contextual measures.

Health. It was expected that relatively good health, other things being equal, would make a person less likely to participate in SSI. An earlier study concerning participation in the aid to families with dependent children (AFDC) program shows that health was a significant determinant; women reporting some disability were approximately 2½ times as likely to be AFDC recipients.[14] The health variables used were measures of functional limitations, self-care ability, and sensory impairment. Functional limitation variables were based on Haber's measure of functional capacity.[15] A health construct based on multiple indicators of self-care ability was developed using principle factor analysis with varimax rotation. Data included eight activities of daily living designed to measure independent functional ability. A health change variable, based on the difference in sick days between 1973 and 1974, was used to account for radical shifts in health status during the year.

Quality of life. Numerous studies have illustrated the effects of an individual's objective circumstances and subjective assessment of well-being on participation in assistance programs. Bendick, in his analysis of

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[11] Models that relate the probability of an event to a series of exogenous factors in a linear fashion often result in biased and inconsistent estimates. The discrete nature of the observed dependent variable can lead to problems concerning the functional form of the model and the nature of the error terms implicit in each observation. The consequences of these violations make ordinary least squares estimation an inappropriate estimation procedure.

[12] The exogenous nature of certain factors in conjunction with the outcome participation suggests the use of a simultaneous equation model in lieu of a single equation model. A model of simultaneous equations treating income, eligibility, and disability as endogenous variables could have been estimated by making use of their predicted values in a participation equation. The adoption of such an approach was precluded by the fact that no measure of eligibility was available. Estimates of individual Federal benefit eligibility, State supplementation eligibility, combined eligibility status, as well as the SSI payment amounts, were determined by the microsimulation model based on 1974 SSI eligibility requirements.

[13] The decision to use 1973 data was based on three specific factors. First, many of the social and demographic variables are either invariant by definition or were found to be constant over the two survey waves. If variation was found in the proposed explanatory variables, change variables were constructed. For latent variables, such as health, communication, and social networks, principle factor analysis was used to develop indices or constructs to be implemented as explanatory variables. Second, the possibility of incorrect data due to self-selection by the target population to meet program qualifications in 1974 is avoided by use of 1973 responses before the implementation of the program. Finally, the time elapsed between the two survey waves varied, and this made it difficult to treat the 1974 data as a discrete point in time.

[14] Nicholas A. Barr and Robert E. Hall, "The Probability of Dependence on Public Assistance," Ford Foundation, May 1974. (Mimeographed.)

[15] Lawrence D. Haber, "Identifying the Disabled: Concepts and Methods in the Measurement of Disability," **Social Security Bulletin,** December 1967, pages 17–34.

nonparticipation, asserted that nonparticipants were typically the "least needy" among those eligible for a variety of programs.[16] Another study also revealed the importance of quality of life on acceptance of benefits. Individuals with adequate housing, diet, or financial resources were expected to be less likely to participate in SSI.

The housing adequacy variable was based on the presence of such amenities as electricity, running water, flush toilet, bath or shower, and kitchen facilities. Dietary adequacy was measured in terms of daily consumption of the basic food groups. Financial satisfaction was represented by the individual's perceptions of levels of living relative to peers and to one's own financial situation 10 years before. Variables to measure monetary concern and the desire for additional money were used in a dummy format. The respondents' present monetary situation was expressed through a series of dummy variables representing the ability to cover living expenses adequately.

Mobility. Distance to services and limited access to transportation have been shown to decrease the probability of participation. In one study, 24 percent of the respondents indicated that time, inconvenience, and distance were deterrents to participation in public assistance programs.[17] Kent and Matson also reported that use of services by the elderly was affected by transportation problems.[18] The fact that the SSI program does not provide assistance to potential participants with special transportation difficulties suggests that mobility may be an important factor.[19]

Several variables were used to measure availability of public and private transportation. Interaction terms were constructed that related availability of transportation to urban/rural residency. The rural/urban measures were farm, town, city, and metropolitan residence and the availability or nonavailability of transportation.

Sociodemographic factors. Various social and demographic characteristics have been correlated to welfare recipiency. Moen, for example, suggests that age, because it is associated with a deeply ingrained ethic of independence, may inhibit participation.[20] Sex

has been found to be a significant determinant of participation: Warlick found that men are more likely to apply for benefits than women, perhaps because of their greater familiarity with the formal labor force and corresponding bureaucratic processes.[21] Rural residence, commonly associated with a negative attitude toward welfare, has been identified as a deterrant to participation.[22] Buxton wrote that welfare programs may be inconsistent with the beliefs and customs of rural communities.[23] Bendick argued that educational characteristics of potential program beneficiaries also distinguish nonparticipants. Application forms often require literacy skills that many eligible persons do not possess.[24] Further, specific studies of the SSI program suggest that it entails a complex application process: A pretest of the forms later used by SSI revealed that applicants had difficulty with all three forms.[25] Household composition represents yet another sociodemographic feature relevant to SSI participation. Warlick found that those who live alone are more affected by the size of benefit as an inducement to participate.[26]

Age, education, sex, region of residency, nationality, and household composition variables were used to identify the characteristics related to nonparticipation. Age and education were used as both continuous and dummy interval variables. The age dummies were split 18–40 years, 41–54 years, and 55 or more years for the disabled. For the elderly sample, dummy variables were split 65–74 years, 75–84 years, and 85 or more years. Education was divided into four variables: 5 years or less (functional illiteracy), 6–8 years, 9–11 years, and 12 or more years of educational training. Regional variables were defined by dividing the sample into western, southern, central, and northeastern components based on the standard census classification of States in divisions and regions. Urban-rural residency was defined as a series of dummy variables that categorized residency as farm, town (under 10,000 population), city (under 100,000 population), and metropolitan (over 100,000 population). A dummy

[16] Marc Bendick, **Why Do Persons Eligible for Public Assistance Fail to Enroll?** (Working Paper No. 0819-02), The Urban Institute, Washington, D.C., August 1979.

[17] Norman Wyers, "Underutilization in Income Maintenance Programs," **Public Welfare**, winter 1976, pages 41–46.

[18] Donald P. Kent and Margaret B. Matson, "The Impact of Health on the Aged Family," **Family Coordinator**, January 1972, pages 29–36.

[19] James R. Storey and Irene Cox, "The New Supplemental Security Income Program—Impact on Current Benefits and Unresolved Issues," **Studies in Public Welfare**, No. 10, U.S. Congress, Joint Economic Committee, Subcommittee on Fiscal Policy, Washington, D.C., 1973.

[20] Elizabeth Moen, "The Reluctance of the Elderly to Accept Help," **Social Problems**, February 1978, pages 293–303.

[21] Jennifer Warlick, **An Empirical Analysis of Participation in the Supplemental Security Income Program Among Eligible Aged Persons,** paper presented at the Annual Meetings of the Gerontological Society, Philadelphia, November 1978.

[22] Mary H. Osgood, "Rural and Urban Attitudes Toward Welfare," **Social Work**, January 1977, pages 41–47.

[23] Edward B. Buxton, "Delivering Social Services in Rural Areas," **Public Welfare**, winter 1971, pages 15–20.

[24] Marc Bendick and Mario G. Cantu, "The Literacy of Welfare Clients," **Social Service Review**, March 1978, pages 56–68.

[25] Institute for Survey Research and National Analysts, Inc., **The Supplemental Security Income Programs: An Evaluation of Materials,** March 1973. This report was prepared under contract with the American Public Welfare Association for the Social Security Administration.

[26] Jennifer Warlick, **The Relationship of the Supplemental Security Income Program and Living Arrangements of the Low-Income Elderly,** paper presented at the National Conference on Social Welfare, Philadelphia, May 1979.

variable was used also to identify individuals who were of foreign birth. A set of household composition variables were introduced to determine if the presence of friends, family, or some particular combination of such individuals could be a source of financial and/or nonfinancial aid and support.

Economic status. It has been widely observed that economic status, because of its direct relation to the size of benefits, is closely associated with participation in public assistance programs. A study of AFDC participation demonstrated that, other things being equal, the higher the benefit level, the higher the participation rate.[27] An investigation of welfare recipiency in New York City identified elderly persons entitled to small grants as an homogenous subgroup of nonparticipants.[28]

To assess the influence of past economic status, work histories and earnings profiles were constructed from SSA records for the 15 years before the initial survey. The earnings profiles were defined as rising, level, or falling based on the preceding 15-year trend in average earnings. Individuals with consistent work histories and typical earnings profiles were expected to be less likely to participate in SSI.[29] Work history variables were based on the pattern of quarters worked per year in conjunction with individual status as a full- or part-time worker over the previous 15-year period.[30] A consistent work history was defined as employment in all four quarters of a year in a full-time capacity for at least three quarters.

Regional unemployment rates and occupational variables were included too. The irregular employment history of many low-income individuals and persons with work-restricting health problems suggested that SSI participation might be concentrated among individuals in specific hazardous occupations or living in areas of chronic unemployment.[31]

Participation in public assistance programs was examined to determine if the amount of payment, income disregards, or the availability of medical insurance had an impact on participation rates.[32] Variables indicating support from welfare, social security, Medicare, and Medicaid in the past year were included in the explanatory variables. A variable was also included to determine if denial of benefits in the past year affected participation. The length of public assistance tenure was tested to ascertain if previous program enrollment indicated greater knowledge of assistance program procedures, the chance of formal referrals, and willingness to accept aid from public sources.

The respondents' and their spouses' sources of income were used as explanatory variables. It was hypothesized that as the level of income increased and/or dual earners were present in the household the probability of participation would decline.[33] Income was segmented into earnings, private pensions, and nonwage sources. An income change variable based on the difference in real income between 1974 and 1973 was included to determine if some unexpected shift in income had occurred that would have altered the individual's economic status and need for additional financial support. The estimated total SSI payment based on the 1974 financial resources of the respondent was used as an explanatory variable. It was assumed that the greater the potential benefits, the greater the likelihood of participation. A similar variable was constructed to measure the net differential between previous State maximum assistance guarantee levels and the SSI guarantee. Participation rates in States with low guarantee levels were expected to increase after the implementation of a higher guarantee level under the Federal SSI program.

Stigma. Numerous studies have suggested that the stigma attached to public welfare inhibits participation. While pretesting SSI information forms, SSA found that OAA and APTD recipients felt that enrollment in welfare programs was a degrading experience. In a study of old-age, survivors, and disability insurance (OASDI) beneficiaries, the Institute for Survey Research and National Analysts discovered that potential recipients of SSI tended to exhibit lowered self-esteem.[34] Similarly, Wells found that over 50 percent of a sample of OAA recipients described themselves as "embarrassed" by welfare recipiency.[35]

The issue of welfare stigma was addressed by using variables that characterized respondents by their willingness to accept welfare payments. These variables provide an indication of the respondent's attitude toward income maintenance before the implementation of

[27] Jacqueline Anderson, "Use of AFDC by Eligible Families: A Predictive Model," **Welfare in Review**, November–December 1969, pages 25–26.

[28] David M. DeFerranti and others, "The Welfare and Nonwelfare Poor in New York City," Rand Institute, 1974.

[29] Oliver Moles, "Predicting Use of Public Assistance: An Empirical Study," **Welfare in Review**, November–December 1969, pages 13–19.

[30] Rose Sturm, **Low-Income Disabled Singles Without Public Assistance in 1973** (SLIAD Report No. 7), May 1979.

[31] John C. Hambor, **Unemployment and Disability: An Econometric Analysis of Time Series Data** (Staff Paper No. 20), Office of Research and Statistics, Social Security Administration, 1975.

[32] Nicholas A. Barr and Robert E. Hall, "The Probability of Dependence on Public Assistance," Ford Foundation, May 1974. (Mimeographed.)

[33] Marc Bendick, **Why Do Persons Eligible for Public Assistance Fail to Enroll?** (Working Paper No. 0819–02), The Urban Institute, Washington, D.C., August 1979.

[34] Institute for Survey Research and National Analysts, Inc., **The Supplemental Security Income Program: An Evaluation of Materials,** March 1973. This report was prepared under contract with the American Public Welfare Association for the Social Security Administration.

[35] Larry Wells, "Welfare Embarrassment," **The Gerontologist,** summer 1972, Part 1, pages 197–200.

SSI. Direct answers drawn from the 1974 questionaire concerning SSI and stigma are discussed in a subsequent section of this article.

Communication. Access to mass media has been proposed as a factor leading to greater awareness of, knowledge about, and participation in public support programs. An analysis conducted by the Division of Family Services revealed that 13 percent of survey respondents had obtained knowledge about SSI from newspapers, 11 percent from radio, 11 percent from television, and 3 percent from brochures.[36]

Variables were developed that indicated an individual's access to radio, television, telephones, books, and libraries. The respondent's ability to make use of these information sources was also considered with the communication variables.

Social network. A social network construct variable was developed using factor analysis. It was assumed that the lack of a social network would decrease informal referrals and knowledge about public support and thus would increase the probability of nonparticipation. Nonparticipation is, of course, closely associated with lack of program knowledge, which is characteristic of socially isolated people. Kent and Matson demonstrated that the use of services by the elderly was influenced by ignorance of their availability.[37] Wyers also found that lack of information was a powerful deterrent to participation in public assistance, food stamps, and free school lunch programs.[38]

The number of confidants and the propinquity of children were tested to determine the role of "significant others" in the support of family and nonfamily members. The impact of formal outreach efforts and community agencies was assessed through three variables: receipt of formal counseling, housing assistance, and information about public support. Awareness and correct information about public services were assumed to be important determinants of program involvement. Misinformation seems to be a problem that has plagued the SSI program since its inception, according to a 1973 study.[39] Many applicants for SSI were discovered to be unable to distinguish between SSI and OASDI. And a substantial proportion feared that enrollment in the SSI program might entail loss of Medicaid benefits. The

study also revealed that documents provided during the application process failed to clarify many popular misconceptions concerning the program.

Contextual factors. Various research efforts indicate the relevance of macrosociological and economic variables to participation in public assistance programs. Chang, for example, suggests that State supplementation programs may have affected Federal SSI participation.[40] Piven and Cloward argue that the economic climate affects participation through expansion of programs, availability of funds, and denial rates.[41]

County contextual variables considered here include OAA and APTD recipiency rates, median income, and poverty concentration. It was proposed that a climate of welfare acceptability and familiarity might prevail in counties with high public assistance recipiency rates and poverty concentrations. State specific eligibility requirements for assistance were analyzed as a series of dummy variables. It was assumed that program involvement would vary among States in relation to the relatively restrictive criteria of previous welfare programs. The specificity of available State data provided a detailed look at these factors before SSI implementation and their possible influence on attitudes and perceptions impeding SSI recipiency was assessed. Previous State welfare characteristics examined were State program assets test, lien law provisions, relative responsibility provisions, essential person provisions, State basic needs standards, and State payments for basic needs.

Specific Findings

The specific results of the logit estimations are discussed separately for the aged and the disabled. The logistic model used to analyze the demand for public assistance related the probability of nonparticipation to a series of explanatory variables. In this format, the focus was on how the exogenous factors affected the probabilities of the discrete event, nonparticipation. For each sample group, the exogenous variables used in the analysis are discussed as discernible explicans of the propositions purported to explain nonparticipation. The discussion of the significant explanatory variables is presented in terms of a general characteristic profile. Table 3 presents the characteristic profiles for each sample group. The profiles are presented as composites of descriptive characteristics based on the estimated logit coefficients. Each component of the profile reflects a different social, economic, or contextual factor associated with an increasing probability of nonparticipation.

[36] Wisconsin School of Mass Communication, **Evaluating Public Information About Supplemental Security Income in Wisconsin,** Madison, 1975.

[37] Donald P. Kent and Margaret B. Matson, "The Impact of Health on the Aged Family," **Family Coordinator,** January 1972, pages 29–36.

[38] Norman Wyers, "Underutilization in Income Maintenance Programs," **Public Welfare,** winter 1976, pages 41–46.

[39] Institute for Survey Research and National Analysts, Inc., **The Supplemental Security Income Program: An Evaluation of Materials,** March 1973. This report was prepared under contract with the American Public Welfare Association for the Social Security Administration.

[40] Gordon C. Chang, "The Supplemental Security Income Program: The 'Revolution' Needs Reform," **Cornell Law Review,** January 1977, pages 314–363.

[41] Frances Fox Piven and Richard A. Cloward, **Regulating the Poor: The Function of Public Welfare,** Random House, 1971.

Table 3.—Significant logit coefficients for nonparticipation of aged and disabled persons eligible for SSI, by general characteristic profiles[1]

Characteristic	Reference group	Coefficient	Standard error
		Aged	
Sociodemographic:			
Male	Female	0.170	0.354
Aged 65–75	Aged 85 and older	.153	.093
Northeastern or North Central resident	Southern resident	.893	.531
Nonmetropolitan resident	Resident in city of 100,000	.282	.659
Lives in county with low OAA rate	Lives in county with high OAA rate	.528	.489
Health:			
Stable health condition last year	Declining health condition last year	.401	.034
Sensory impaired sight	No sensory impairment, sight	.231	.313
Economic:			
Level earnings profile	Rising earnings profile	.334	.551
Slight income improvement last year	Stable income, greater than 10 percent last year	.145	.941
Living standard equivalent to peers, self-assessed	Living standard lower than peers, self-assessed	[2] 1.12	.321
Public assistance:			
Estimated SSI payment below $50	Estimated SSI payment above $75	.406	.349
Uninformed on community services or agencies	Informed on community services or agencies	1.01	.325
No formal referrals for health or housing needs	Formal referral for health or housing needs	[2] .227	.129
Unwilling to accept public aid	Willing to accept public aid	.720	.447
Nonreceipient of—			
Medicare	Recipient	[2] .087	.562
Medicaid		.955	.323
		Disabled	
Sociodemographic:			
Male	Female	[2] 0.686	0.273
Aged 55–64	Aged 41–54	[2] .832	.278
Northeastern or North Central resident	Southern resident	.787	.436
Lives in county with high median income and low APTD rate	Lives in county with low median income and high APTD rate	.440	.167
White-collar profession	Blue-collar profession	[2] 1.44	.523
Health:			
Stable health condition last year	Declining health, more than 10-percent increase in sick days	[2] .362	.112
Minor or no functional limitation	Functional limitation, moderate-severe	[2] 1.12	.382
Sensory impaired, sight	No sensory impairment	[2] .728	.275
Economic:			
Income adequate, self-assessed	Inadequate income, self-assessed	.382	.264
No money worries	Money worries	.455	.262
Desires more income	Desires no more income	.178	.231
Working spouse	Nonworking spouse	[2] 1.62	.397
Pension income	No pension income	.362	.412
Household composition:			
Lives alone	Lives with spouse only	[2] 1.79	.413
Lives with nonrelatives		[2] 1.13	.592
Lives with spouse and relatives		1.42	.348
Public assistance:			
Influenced by SSI essential person provision	No State essential person provision	1.06	.425
Estimated SSI payment:			
Below $25	Estimated SSI payment above $75	.956	.367
$25–$50		[2] 1.59	.442
AFDC recipient	Non-AFDC recipient	[2] 1.26	.697
Nonrecipient of—			
Social security (OASDI)	Recipient	.853	.662
Medicare		[2] 1.01	.313
Medicaid		.605	.297
Denied welfare payments, last 12 months	Received welfare payments, last 12 months	.736	.458

[1] Profiles based on significant logit coefficients indicating increasing probability of nonparticipation. All variables cited are significant at the 0.05 level.

[2] Significant at 0.01 level.

Elderly Nonparticipants

The logistic analysis of SSI nonparticipation among the aged revealed that several of the assumptions and propositions found to be related to nonparticipation were not significant explicans for the SLIAD sample population. No discernible correlation was found between nonparticipation and various physical and material measures of well-being such as self-care ability, housing, or diet adequacy. Living arrangements, access to transportation, mobility, and access to mass communications were found to be insignificant explicans. Nonparticipation was not related to racial, ethnic, or educational characteristics. Factors representing economic status, earnings, pensions, and nonwage income also were not significant predictors. The presence of other forms of financial support such as a working spouse, aid from children or relatives, or changes in the guarantee levels of public support under the SSI program did not increase the probability of nonparticipation. County contextual measures related to median income, poverty concentration, and prior State welfare eligibility restrictions were not significant explanatory variables. Even subjective measures of income adequacy were insignificant.

The breadth of propositions found to be insignificant is important in that it reveals the heterogeneity of the SSI population in relation to other program participant populations. This suggests, therefore, it would be erroneous to make generalizations about the SSI nonparticipant as well as participant in the context of causal factors related to other program participation patterns.

The important differences between the participant and nonparticipant aged populations were found in relation to health and financial status, the two crucial determinants of program involvement. The nonparticipant's health was stable, unencumbered by self-care limitations, functional or mobility restrictions, and was hampered only by sensory impairments commonly associated with aging. Although the actual dollar amounts were small, the nonparticipant's financial resources were greater in terms of earnings and nonwage income. Comparisons of total assets and net worth evaluations also revealed the nonparticipants' greater relative material well-being. These income differences therefore in conjunction with a more stable health condition indicated the basic reasons for nonparticipation.

Other components of the characteristic profile can also be used to explain and further clarify nonparticipation among the aged target population. The likelihood of nonparticipants to be in the 65–74 age group suggests that the "younger" aged were less likely to suffer from the debilitating health conditions associated with aging. Younger individuals would have been active in the labor force during the prosperous post-war era, increasing the probability of more accumulated wealth relative to older cohorts. The higher probability of males being nonparticipants can be explained in terms of their higher labor-force participation rates and their higher earnings profile relative to females.

Among nonparticipants, the lack of previous program involvement and the expressed dislike for assistance were found to be associated with incomes in the upper ranges for program eligibility. Less than 1 percent of this group had any history of welfare participation and only 6 percent had ever applied for assistance. This fact suggests that the nonparticipant population had, in general, been outside the welfare system. The strong opposition of nonparticipants to the acceptance of public aid supports this hypothesis. Analysis showed that only 35 percent of the eligible nonparticipants indicated they would willingly accept public aid. The notion of voluntary renunciation reflects a situation in which the benefits offered were not sufficient to compensate for the effort, expense, or stigma of participation. In this study, a similar pattern was found among aged nonparticipants: payment levels below $50 were associated with an increased probability of nonparticipation.

This positive correlation of nonparticipation and low payment level, however, is not characteristic of individuals with comparable incomes who are involved in other assistance programs. Such a discrepancy suggests that the degree of relative deprivation and attitude toward welfare among aged nonparticipants differed significantly from other low-income assistance populations.[42] This phenomenon may be an important underlying causal factor pertaining to program involvement.

The history of nonparticipation in assistance programs among the aged may be due either to a lack of awareness of existing programs or to imperfect or misconstrued information about program eligibility and benefits. The profiles indicated that nonparticipants were uninformed about community services and had not received any formal assistance concerning housing or health needs in the past year. The importance of nonmetropolitan residence in counties with low OAA rates and the statistical insignificance of many of the social network variables suggested participants were, in an informational sense, isolated. Formal referrals and individual contact have been found to be the most effective means of informing and enrolling recipients. Informal referral through social interaction among family, neighbors, and friends constitute another important source of information. The profile reveals that elderly nonparticipants lacked these valuable informational resources.

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[42] Marc Bendick, **Why Do Persons Eligible for Public Assistance Fail to Enroll?** (Working Paper No. 0819-02), The Urban Institute, Washington, D.C., August 1979.

The importance of limited and/or misconstrued information is compounded by the educational and personal communication characteristics of the aged. The mean level of educational training was 7.5 years, yet 23 percent of the nonparticipants had less than the 5 years of education considered necessary to be functionally literate. In addition, 22 percent were of foreign birth, raising the possibility of English as a second language. The combination of these factors with sensory impairments suggested poor reading and interpretative skills. These characteristics might inhibit participation, considering the fact that in a sample of welfare documents nearly 90 percent required an eighth grade reading level.[43] Therefore, public service outreach programs implemented through the mass media may have been missed or misunderstood by the eligible nonparticipants. A negative attitude toward welfare may compound this information gap because it represents a reluctance to become involved or informed.

Regional variation in participation rates may also partially reflect preconceived ideas about assistance programs based on misinformation. Controlling for the State characteristics of previous aid programs showed that nonparticipation was greater in the Northeastern and Central States that had more restrictive eligibility rules than did States in the South. If potential eligibles could not obtain the proper information, restrictions characteristic of previous programs might bias understanding of the SSI program and discourage potential participation.

Disabled Nonparticipants

The analysis of nonparticipation of the disabled sample also revealed the lack of association between several proposed explanatory variables and the increasing probability of nonparticipation. Health measures related to functional limitation and self-care ability were found to be insignificant. Variables related to housing and diet adequacy, mobility, and stigma were found not to affect nonparticipation. Racial, ethnic, and educational characteristics did not alter the probability of nonparticipation, nor did variables used to explain social networks and exposure to the mass media. Economic well-being measured in terms of present or past earnings and shifts in program maximum guarantee levels also were not significant. Although the range of variables found not to explain nonparticipation was narrower in comparison with the analysis of the aged sample, the empirical findings still indicate heterogeneity of the disabled population in relation to other income-transfer populations.

The disabled nonparticipant profile describes an indi-

vidual with a stable health condition in the past year and comparatively few limitations on physical activity. While program participants reported a 40-percent rate of severe functional incapacity, only 32 percent of the nonparticipants were so limited, and 21 percent indicated no restrictions on physical activity. Self-rated health differed as well. Less than 40 percent of the nonparticipant population assessed their overall health as "poor," compared with 55 percent of the participant population. These findings suggest that the nonparticipants are physically more robust and generally optimistic about their health than are participants, but one should be cautious about inferring differences in disability status itself. Retardation, deafness, mental illness, and other disabling conditions may not impose functional limitations yet still preclude most forms of regular employment. It should be noted that the predominant debilitating condition for both groups was sensory impairment, followed by back problems, skeletal deformities, and mental/nervous conditions.

Work history profiles indicated the significance of white-collar occupations and private pension incomes as nonparticipant traits. These characteristics are indicative of the heterogeneity of the nonparticipants in comparison with the participant population. The nonparticipants had 20 percent more employment during the 15 years before the survey period. Some 63 percent of nonparticipants had a consistent pattern of full-time employment, compared with 39 percent for the participants. Only 2.5 percent of the participants were employed in 1974, and 59 percent had been unemployed for 2 or more years; 14 percent of the nonparticipants were employed in 1974, and only 45 percent had been out of the labor force for 2 or more years. The employment history of the nonparticipants correlates with the low percentage of nonparticipants with a history of welfare support, 18 percent, and thus with nonrecipiency as a predictor of program nonparticipation.

The sex and age components of the profile can also be related to work history and earnings. The significance of males as nonparticipants pointed to their traditionally higher labor-force participation rates and income levels. The age range of the nonparticipants suggested that these individuals, with a more consistent work history, had generated more wealth and a higher earnings profile. The income level of the nonparticipants' nuclear family unit, 67 percent with male heads of household, was found to be significantly greater than the participants'. Earnings income, pension, and non-wage income were also greater. The importance of estimated payment levels below $50 associated with nonparticipation also illustrated the more favorable income level of nonparticipants relative to participants and reaffirms the possibility of voluntary renunciation as a factor contributing to nonparticipation.

[43] Marc Bendick and Mario G. Cantu, "The Literacy of Welfare Clients," Social Service Review, March 1978, pages 56–58.

Quality of life variables describing perception of need and income adequacy illustrated other differences between disabled participants and nonparticipants. Nonparticipants perceived their incomes as adequate, but did indicate the desire to obtain additional income. The significance of public aid denials also shows the relative well-being of the nonparticipant relative to other assistance recipients.

Under previous State welfare program guidelines, a strict interpretation of the "essential person" regulation existed in 16 States, predominantly in the Northeastern and Central regions. The possible effect of this restriction is found among nonparticipants because they were more likely to reside in the Northeast and Central areas with low APTD rates. This factor suggests the influence of previous program guidelines on the potential eligible population and raises the possibility that SSI guidelines are being confused with previous State program guidelines.

The increased probability of nonparticipation due to external forms of support was shown by the significance of other household members as a source of financial aid. The presence of a working spouse is an important predictor of nonparticipation. Although participants were more likely to live with a spouse, their spouse seldom worked. The percentage of participants living with relatives fell 8 percent over the survey period while the percentage of participants living alone rose 27 percent. The drop in extended family relationships indicates a more limited financial base and thus a need for additional support such as SSI. In contrast, the nonparticipant who lived alone had mean annual earnings 126 percent higher than the participant in single person households, and married nonparticipants had mean annual earnings 52 percent higher.

Nonparticipants and SSI

The Survey of Low-Income Aged and Disabled offered a unique opportunity not only to evaluate the factors affecting SSI participation, but also to assess the interaction of the eligible population with the SSI program. The second survey wave in 1974 contained a series of questions concerning exposure to and involvement in the SSI program. These questions provide information verifying the empirical findings that related the likelihood of nonparticipation to the series of explanatory factors. Table 4 presents responses for both nonparticipant populations.

The low participation rate is strongly correlated with the lack of knowledge about social security assistance programs as potential sources of support for low-income aged and disabled individuals. Only 12 percent of eligible nonparticipants stated they would have directed low-income persons to a Social Security office for assistance in 1974. The majority of respondents mentioned the welfare department. DiCicco and Apple found in an earlier study of aged welfare recipients that, for all its flaws, the welfare department was the only community service agency that recipients knew about, have ever used, or seem inclined to use in the future.[44]

This low percentage of referrals to Social Security offices is also reflected in the lack of awareness of any national assistance program for the targeted population. Twenty-nine percent of the disabled and 17 percent of the aged indicated some knowledge of assistance for the aged and disabled, but only 12 percent of the disabled and 7 percent of the aged specifically mentioned SSI. The presence of only a small group of informed eligible persons and their low participation rate in the application process, 23 percent for the disabled and 15 percent for the aged, provided supportive evidence for the concept of the nonparticipant as an informational isolate. Moreover, less than 30 percent of the eligible transferred participants indicated an understanding of the SSI program. Over 75 percent of the disabled and 73 percent of the aged were undecided about the improvement of SSI over the State assistance plans. This indecision, probably strongly correlated with little program knowledge, partially explains the high degree of uncertainty about stigma attached to SSI recipients. A large percentage of sample persons who responded positively when asked if they would be willing to apply for SSI in the future, if needed, must be scrutinized in relation to the possibility of limited and/or misconstrued information about the program. Subsequent studies of recipient awareness of SSI have indicated a high degree of ignorance about what SSI was or exactly why one should receive it.[45]

Individuals aware of the SSI program stated that one of the two primary sources of information was some type of social network. The reliance upon a social network as an informational source suggests two things: the possibility of misconstrued information and the difficulty of reaching both physically and socially isolated persons, especially among the aged.[46] These hypotheses seem appropriate in that 52 percent of the disabled and 71 percent of the aged did not complete the application process because they thought they were ineligible.

[44] Zena DiCicco and Dorrian Apple, "Health Needs and Opinions of Older Adults," Sociological Studies of Health and Sickness, Dorrian Apple (editor), McGraw Hill, 1960, pages 26–39.

[45] A Study of Recipient Awareness of SSI and Comprehension (SSA Publication No. 75-11011), Office of Information, Social Security Administration, 1976.

[46] Burton Dunlap, Institutions Among the Elderly: Definition, Measurement and Policy Considerations, The Urban Institute, Washington, D.C. 1973, and Rosemary Erickson and Kevin Eckert, "The Elderly Poor in Downtown San Diego Hotels," The Gerontologist, October 1977, pages 440–446.

Table 4.—SSI nonparticipants, knowledge of public assistance programs: Responses from the Survey of Low-Income Aged and Disabled

Question	Response	Percent	
		Aged	Disabled
If an old, blind, or very sick person came to live in this community and had no money, no savings, and no income, where should that person go to find out about getting money for food, rent, etc.?	Social Security Administration	12.0	12.0
	Welfare department	49.0	63.0
	Other Government agency	6.0	5.0
	Private agency	12.0	16.0
	Other	21.0	4.0
Do you know of any nationwide Federal program specifically designed to provide income for aged, blind, and disabled persons below a certain income level?	No	83.2	71.0
	Yes, SSI program not mentioned	9.4	17.0
	Yes, SSI program mentioned	7.4	12.0
How did you first learn about the SSI program (if respondent mentioned SSI)?	Mail	1.4	1.2
	Newspaper	2.1	2.0
	Radio, television	8	1.4
	Friends, relatives	1.6	3.9
	Public agency	.5	1.3
	Other	1.0	2.2
Have you ever contacted a Social Security office to find out if you would be eligible for SSI payments?	No	85.3	77.0
	Yes	13.4	23.0
	Don't know	1.2	
If contacted Social Security about SSI eligibility, did you actually fill out and sign an application form?	Yes	8.3	14.6
	No	4.9	7.9
	Don't know	.2	.5
If completed an application for SSI payments, what happened to your application?	Pending	3.0	6.1
	Accepted	.2	1.3
	Denied[1]	3.8	5.2
	Don't know	1.3	2.0
If you did not file an application for SSI payments, why?	Thought not eligible	3.5	4.1
	Other	1.4	3.8
Will you ask about the SSI program in the future?	Yes	88.2	93.4
	No	5.5	2.7
	Don't know	6.4	3.9
Was a negative attitude perceived toward SSI recipients?	Yes	2.8	6.6
	No	36.2	42.3
	Don't know	61.0	51.0
How does the SSI program compare with previous State assistance programs?	Better	16.1	17.6
	Worse	1.6	1.5
	Same	8.7	6.4
	Undecided	73.6	74.5

[1] The initial denials may have resulted from a change in the eligible individual's health, financial resources, or living arrangements during the year. For the disabled, reconsideration of initial denials resulted in reversals in 32 percent of the cases, and in 29 percent of the aged cases.

Income Adequacy and SSI

The SSI program was established to supplement the income of aged and disabled individuals whose coverage under the OASDI program was considered inadequate due to a history of irregular and/or noncovered employment. Analysis of the nontransferred eligible population revealed that SSI participants who entered the program in its initial year were among the "most needy" of the targeted group. In this sense, the program was successful; it reached those individuals who were most insecure financially. The absolute dollar amounts that differentiate the economic resources of participants from those of nonparticipants, however, are undeniably small. Table 5 presents mean levels of income sources for the two nonparticipant populations.

Based on the income data in table 5, 49 percent of aged participants and 50 percent of the disabled participants fell below the official poverty line. Among the nonparticipants, 37 percent of the aged and 48 percent of the disabled fell below the poverty line. Many public assistance programs extend eligibility to individuals of relatively high incomes, but reduce payments as incomes rise to avoid work disincentives. This policy results in the inclusion of eligibles who may voluntarily decline to participate because the benefit offered represents too low a net addition to their total resources. In view of the low-income range and characteristics of the eligible SSI population, such an explanation does not

Table 5.—Mean income, by source and household composition, 1974

Income source[1] and household composition	Aged			Disabled		
	Total	Participant	Nonparticipant	Total	Participant	Nonparticipant
Wages:						
Nuclear family	$132	$36	$180	$420	$144	$600
Household	708	516	792	1,404	560	888
OASDI benefits:						
Nuclear family	1,492	1,372	1,545	697	1,040	591
Household	1,729	1,584	1,794	968	1,310	862
Pensions:						
Nuclear family	68	45	77	28	4	35
Household	108	117	103	60	29	70
SSI payments:						
Nuclear family	182	414	....	198	697	....
Household	214	429	....	247	747	....
Total income:[2]						
Nuclear family	2,159	2,056	2,204	2,343	2,360	2.337
Household	3,509	3,186	3,656	4,146	3,609	4.326
Assets:[3]	3,712	3,229	3,935	1,822	1,730	1.850
Percent of household composition:						
Lives alone	39	44	37	16	15	16.5
Spouse only	23	20	24.5	16	28.5	13
Relatives	28	27.5	28	60	50	63
Nonrelatives	10	8.6	10.6	7.4	7	7.6

[1] Calculated in 1967 dollars.
[2] Includes all income sources.
[3] Net value of property, home business, savings, investments, and other cash reserves.
[4] Includes households with relatives as well as spouse and/or children.

seem realistic, but even so it cannot be completely discounted.
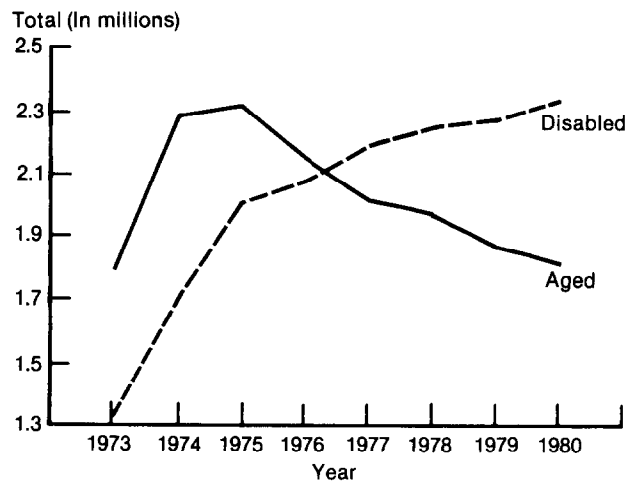
Subsequent Response to SSI

This analysis of participation has focused on the first-year response to SSI of individuals who were not participating in the State adult assistance programs at the end of 1973. The fact that the program has now been operating for 7 years gives rise to the question of whether any relationship exists between the factors that initially affected program participation and factors affecting participation today.

An examination of the trends in program enrollments since 1974 suggest continued gaps in SSI's coverage and outreach efforts.[47] Table 6 presents the total number of aged and disabled SSI recipients for each year the program has operated, as well as the yearly change. After the initial phase-in period, 1974 to 1975, the SSI caseload for the aged had declined steadily. By 1980, the caseload had dropped below the number of recipients being paid old-age assistance in 1973. The decline in the number of recipients after 1975 is com-

monly attributed to mortality, increased OASDI benefits, and less intensive outreach efforts.

The SSI program for the disabled also had a pattern of rapid growth during the phase-in period. As was true of the caseload for the aged, the rate of increase in the disability caseload fell sharply in 1976. It has exhibited a low rate of annual growth since then. The trends for both groups, as illustrated in chart 1, suggest that SSI has stabilized in the sense that only a portion of the potential target population has ever been drawn into the program. Unless the number of eligibles has declined enormously in the past few years, a low participation rate still appears to be prevalent.

Chart 1. — SSI caseload for low-income aged and disabled recipients, 1973-80

Total (In millions)

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[47] A forthcoming SSA study, **Eligibility and Participation in the SSI Program,** may provide some validation of the factors that were found to be significant predictors of nonparticipation at the program's inception. The study, based on 1979 interview data of 2,000 aged participants and nonparticipants and 200 SSA district office workers, re-examines the factors purported to affect SSI participation. This study should provide a better explanation of nonparticipation among the aged.

Table 6.—SSI and public assistance caseloads, by yearly change, 1973–80

Year	Aged				Disabled			
	Total recipients[1]	Yearly change	Percent		Total recipients	Yearly change	Percent	
			Yearly change	1974 base			Yearly change	1974 base
1973[2]	1,818,195	....	....	....	1,335,436	....	....	....
1974	2,285,909	467,714	+25.7	100.0	1,710,155	374,719	+28.1	100.0
1975	2,307,105	21,196	+.9	100.9	2,007,170	297,015	+17.4	117
1976	2,147,697	-159,408	-6.9	94	2,088,242	81,072	+4.0	122
1977	2,050,921	-96,776	-4.7	90	2,186,771	98,529	+2.8	132
1978	1,967,900	-83,021	-4.0	86	2,249,025	62,254	+2.8	132
1979	1,871,176	-96,724	-4.9	82	2,277,859	28,834	+1.3	133
1980[3]	1,814,843	-56,333	-3.0	79	2,330,997	53,138	+2.3	136

[1] Based on December caseloads of each year.
[2] Based on caseloads of State public assistance programs that SSI replaced in 1974.
[3] Based on estimated November caseloads.

Outreach Efforts

In response to low participation rates, a variety of outreach efforts were undertaken by the Federal Government to locate and enroll potential recipients. Between 1973 and 1976, the Social Security Administration and the Administration on Aging spent nearly $25 million and expended 870 workyears in an attempt to increase both knowledge about and the appeal of SSI. The first major outreach effort in 1974, Supplemental Security Income Alert, was criticized as a source of misinformation about the program. Because of budgetary limitations and time constraints, this outreach effort resulted in inconsistent interpretations of eligibility criteria and in referrals of a high proportion of ineligibles. Much of the confusion may be attributable to the existence of restrictive requirements in States that administered optional supplements to the Federal program. Most proponents of SSI incorrectly assumed that the national standards would remove the States' provisions relating to liens, relative responsibility, and income resource limitations. In fact, 24 of 37 States providing optional supplementation had provisions that were more restrictive than the Federal rules.[48]

A second outreach effort, the Master Beneficiary Leads Project, was criticized for its limited effectiveness. Because it extracted cases from SSA records, only individuals with a recorded work history were notified about SSI. Although the project netted 200,000 new applications, a large proportion of the potentially eligible population was not contacted.[49] Subsequent evaluation of these and other outreach efforts has been less

[48] Efforts Made to Locate and Enroll Potential Recipients of the Supplemental Security Income Program for the Aged, Blind, and Disabled, Report of the Comptroller General (HRD-76-176), SSI Study Group, Department of Health, Education, and Welfare, December 1976.
[49] A special Office of Research and Statistics pilot study, Eligibility and Participation in the SSI Program, also found that a significant number of eligible aged persons are not participating. Preliminary estimates of SSI participation indicated that there are almost 1.4 million aged nonparticipants.

than favorable and their impact on program enrollments has been limited.

Implications of These Findings

The identification of the factors and circumstances that have accounted for the large pool of eligible SSI nonparticipants raises the question of what, if any, changes could be made to achieve the mandated purposes of the SSI program. For the nontransferred eligible population, this study identified four key determinants of participation. The dread of stigma associated with dependence on welfare does not seem to have been eliminated by the switch from State-administered programs to SSI. Nonparticipants were consistently more likely to report that they would never accept welfare. Nonparticipation was found to be strongly correlated with a lack of knowledge of social security programs as a potential source of income support for the low-income aged and disabled. The importance of household composition and living arrangements to participation in SSI indicates that eligible persons often substitute family for public support. Finally, the nonparticipants were found to be more financially secure than program participants, although the income differential between the two groups and the absolute dollar amount of financial resources is quite low, as dictated by the program's eligibility requirements.

There are two basic strategies that could be pursued in an attempt to increase SSI participation levels. The first strategy would be to make the program more effective in the dissemination of information and encouragement of those eligible to enter the program. The second strategy would be to modify the program's package of benefits to make it more enticing for the low-income aged and disabled to participate.

The first of these strategies has already been attempted through various outreach efforts that the Social Security Administration undertook after implementing SSI. These outreach programs were intended to in-

crease the public's awareness and understanding of SSI. Marketing the program as an "income guarantee" rather than a needs-based welfare program, however, has not been altogether convincing nor successful.

The Social Security Administration is constrained in its abilities to develop outreach efforts carefully tailored to suit the comprehension level and background of the target population. The Social Security Administration is a Federal entity, administering multiple programs well beyond the scope of SSI alone. It is virtually impossible within this context and at current resource levels for SSA to do the personal canvassing and fieldwork that would be required to disseminate correct program information and overcome the stigma that many eligible individuals seemingly associate with participation in SSI. For SSA to develop the required machinery to accomplish this would mean a significant expansion in the role of its employees into the social caseworker area and would result in higher employment levels and administrative costs for the program.

The second strategy of modifying the program's package of benefits would affect participation by changing the structure of the economic incentives inherent in the program. The underenrollment of persons found to be in the upper range of the income distribution might be remedied by a shift in the program parameters that determine benefit amounts in conjunction with financial resources. Reduction in the number of persons eligible for payments below $50, found to be the level associated with nonparticipation, might render the program more appealing by increasing the financial return for program involvement. This reduction could be accomplished by raising the guarantee level. In fact, the 1979 Advisory Council on Social Security advocated raising the minimum payment level to the official poverty line.[50] However, the clustering of nonparticipants in the upper end of the eligible income range suggests that the minimum payment level would have to be raised above the official poverty line to ensure greater participation among individuals deemed to be in poverty and needing assistance.

An alternative to raising the basic payment would be to relax the treatment of alternative income and assets in determining eligibility. For example, the 1979 Advisory Council advocated increasing the $20 exemption of nonearned income to $30 and indexing it thereafter in determining the SSI payment level.[51] This would have the effect of raising the payment level and could be expected to increase SSI program participation. The Council also recommended that SSI resource limits be updated and automatically adjusted each year for changes in the cost of living. This proposal would increase the number of individuals who would qualify for payments, and it could lead to increased participation.

Raising payment levels or liberalizing the assets limit in the program would raise the level of participation in the program but it would also significantly expand the total number of individuals eligible for supplemental security income. Although current nonparticipants might find the revised program sufficiently attractive to apply for payments, many of the newly eligible individuals would only qualify for low payment levels and would not find it worthwhile to participate. Thus, it is not clear that increases in the guarantee level would increase the rate of participation, although absolute levels of participation would rise.

The importance of household composition and living arrangements to participation indicates that eligible persons often substitute family for public support. Payment levels for recipients getting support from family members or other private sources are subject to substantial reduction. For these persons the likelihood of program participation is diminished at the same time their families experience the financial and emotional burden of caring for an elderly or disabled relative. More liberal interpretation of relative responsibility, essential person conditions, and nonwage income disregards might remove this barrier to participation. One potential way to encourage more needy individuals living in someone else's home to participate in SSI would be to liberalize or eliminate the one-third reduction in payments currently applied to these cases. The actual impact of such a change in the payment computation upon participation is difficult to determine because the number of eligibles and the effect on their payment levels is not known. At present, 5.4 percent of the aged and 7.5 percent of the disabled are affected by the one-third reduction provision. The increase in participation, therefore, would likely be positive but relatively small. In general, the positive correlation between participation and payment level seems to underlie many of the more specific distinctions between participants and nonparticipants. This association suggests an upward shift in guarantee levels that would raise the net return of participating and thus would make SSI program participation more attractive.

Summary

The SSI program was established to provide a nationally uniform Federal income support program for aged, blind, and disabled individuals who meet categorical, income, and asset eligibility criteria. The eligible population, however, can not be easily categorized as a

[50] "Social Security Financing and Benefits," **Reports of the 1979 Advisory Council on Social Security**, Department of Health, Education and Welfare, December 1979, page 201.

[51] **Ibid.**, page 202.

homogeneous group. They differ in their attitudes, perceptions, and relative levels of material well-being. The impact of these determinants of individual choice behavior on the demand for assistance has resulted in an initial low evaluation of and participation in the SSI program. The empirical analysis revealed three general conditions that could result in a low evaluation of program benefits and therefore nonparticipation. First, nonparticipation was found to be strongly correlated with the amount of financial and human capital resources available to the individual. In relative terms, nonparticipants were healthier and better off financially. The nonparticipant population consistently displayed higher income levels relative to participants. In terms of human capital, the health stock of nonparticipants was greater based on their employment record and on their history of limited medical assistance.

The availability of resources is closely associated with the second major factor related to nonparticipation: self-assessed or subjective perception of need. This factor is reflected in nonparticipants' assessments of their quality of life and income adequacy, in their history of lower participation rates in public assistance programs, and in their attitude toward welfare, especially among the aged. These characteristics may well define a person who is a "voluntary renouncer."

Participation, however, may have been impeded by forces beyond the eligible person's control—such as unawareness of programs that provide assistance. The third major factor may provide the underlying rationale for the low participation rates of the disabled and especially for the more isolated elderly population. The low incidence of previous involvement in assistance programs indicated that nonparticipants had little if any experience with application and enrollment procedures. The role of attitude towards assistance, the possible influence of previous State program restrictions, sensory impairments, and low educational levels may have increased the possibility of misconstrued information. The social network variables indicated a lack of information regarding public assistance and community services and this may result in an inability to determine accurately the real return from involvement in an assistance program. Knowledge or information is an important determinant of nonparticipation in any type of public assistance program and may be especially important for the SSI target populations because of their limited exposure to and knowledge of public support programs.

Appendix table I.—List of variables by concept area[1]

Variable	Concept area
	Health
Functional limitation	Set of dichotomous variables No limits, moderate, and severe
Hearing	Dichotomous variable Value of 1 if person had hearing loss
Sight	Dichotomous variable Value of 1 if person had difficulty seeing or had loss of sight
Health status	Construct composed of multiple indicators of self-care ability using principle factor analysis with varimax rotation Date included eight activities of daily living indicating independent function in the following area: grocery shopping, meal preparation, light housework, clothes washing, dressing, bathing, and caring for self when ill Separate factor analyses performed for the aged and disabled subpopulations supported the decision to use the first principle factor as the basis for computation of factor scores About 78 percent of the communality as explained for each group The first eight values for the aged and disabled were 3.886 and 3.656, respectively All remaining values for both groups were less than 1 This health construct was used as a continuous variable and was split into three dummies to ascertain the differences between respondents with low, medium, and high levels of self-care ability
Health change	Difference in sick days between 1973 and 1974 Used as continuous variable with dummy format in months
	Sociodemographic
Sex	Dichotomous variable Value of 1 if male
Age	Set of dichotomous variables Composed of the following age groups: 18-40, 41-54, 55-64, 65-74, 75-84, 85 and older
Race	Dichotomous variable Value of 1 if white
Children	Continuous variable Related to propinquity of children
Household composition	Set of dichotomous variables Composed of the following groups: Living alone, living with nonrelatives, living with spouse only, living with spouse and others
Education	Set of dichotomous variables Composed of the following groups: 0-5 years, 6-11 years, 12 or more years of schooling
Occupation	Dichotomous variable Value of 1 if white-collar profession
Region	Set of dichotomous variables Composed of the following census regions: Central (East North Central, West North Central) South (South Atlantic, East South Central, West South Central) West (Mountain, Pacific) New England (Middle Atlantic)
Foreign	Dichotomous variable Value of 1 if not born in United States
Confidents	Continuous variable Related number of confidents

See footnotes at end of table.

Appendix table I.—List of variables by concept area—**Continued**

Variable	Concept area	Variable	Concept area
	Quality of life		**Economic—Continued**
Diet	Dichotomous variable Value of 1 if diet met minimum level of needed food groups	Income change (Continued)	Income changes between 1973 and 1974 Seven variables categorized ±25-50, ±20, ±10, or no percentage change
Housing	Dichotomous variable Value of 1 if house had electricity, toilet, and running water, shower, tub, and kitchen facilities	Nonwage income	Continuous variable Interest, dividends, private relief, family contributions, and private insurance
Housing and diet	Combination of diet and housing levels	Pension income	Continuous variable
Income peers	Dichotomous variable Value of 1 if self-assessed income equivalent to peers		Composed of income from pensions, railroad retirement, military, sick benefits, and workers' compensation
Money desire	Set of dichotomous variables Inability to meet needs, break even, or have surplus money income	Working spouse	Dichotomous variable Value of 1 if spouse works full or part time
Money worry	Dichotomous variable Value of 1 if individual worries about money needs	Unemployment	Set of dichotomous variables Lived in area with unemployment above national average
Past income adequacy	Dichotomous variable Value of 1 if self-assessed income today equivalent to level 10 years ago		**Public assistance**
	Mobility	Public aid	Set of dichotomous variables Receipt of social security, welfare, and possible combinations
Mobile	Set of dichotomous variables Relating place of residence (rural, town, city, metropolitan) to availability of transportation (own, public, friends, relatives)	Payment level	Set of dichotomous variables Payment levels at 0, $10, $25, $50, and $75 per month
Self-mobile	Set of dichotomous variables Relating to self-ability	Payment denial	Dichotomous variable Value of 1 if denied payment in last year
		Medicare	Dichotomous variable Value of 1 if received Medicare
	County contextual	Medicaid	Dichotomous variable Value of 1 if received Medicaid
Median income	z score variable Based on total U.S. distribution of income levels by county	Welfare stigma	Set of dichotomous variables Expressing willingness to accept aid, accept if necessary, and never accept aid
Guarantee differentials	Set of continuous variables Based on difference between Federal and State guarantees		**Information assistance and contacts**
OAA and APTD	z actual rates Based on total U.S. distribution by county	Counseling	Dichotomous variable Value of 1 if received formal counseling
Population density	z score variable Based on population per square mile	Housing	Dichotomous variable Value of 1 if received formal housing assistance
Poverty concentration	z score variable Based on total U.S. distribution of individuals below poverty line by county	Public aid	Dichotomous variable Value of 1 if received formal assistance in obtaining public aid
State characteristics	Set of dichotomous variables Related to following State program criteria: lien laws, relative responsibility, essential person, State basic need standards, asset tests, and State payments	Communication	Set of dichotomous variables Relating to access to radio, television, telephone, books, and libraries Sensory impairment and access to mass communications were combined in various interaction terms
	Economic	Social network	Dichotomous variable Value of 1 representing following contacts during the month preceding interview: Visit to home of friend; entertained at home; participated in formally organized activities; contact with neighbors, acquaintances, relatives other than children not in the household, and others Respective values and corresponding communalities explained, were as follows: aged—1.234, 62 percent; disabled—1.643, 62 percent
Earnings	Continuous variable Whole dollars based on wage or salary earnings		
Earnings profile	Set of dichotomous variables Declining, flat, or rising earnings profile over past 20 years		
Income change	Set of dichotomous variables		

[1] The presence of multiple indicators and high colinearity among variables necessitated the use of selected variables on various runs.